



Hurricane Region PCA  
6th Annual Drivers Ed  
Carolina Motorsport Park  
14-15 August 2010

## Drivers Education 101: An Introduction to the Secret Language of High Performance Driving

For those participants who are new to Drivers Education, we have included a brief explanation of several terms which you may hear during the weekend. Ask questions! The classroom and in-car instructors are here to help you learn valuable skills which can be applied to on-track driving, as well as in your normal street driving. Students attend classroom sessions to enhance their understanding of high performance driving. Don't worry about memorizing everything in advance. The classroom quizzes are usually quite easy unless the classroom instructor is having a particularly bad day. ☺

*These terms are not in alphabetical order. Terms defined in other paragraphs are in **bold** font.*

### Run Groups

Drivers are assigned to groups according to their experience level and car type. The biggest problem encountered in Drivers Education is speed differential within run groups. During the weekend, some drivers may be reassigned to a different run group. If you are reassigned to a lower group, don't be discouraged. If you are moved to a higher run group, don't let it go to your head. Our run groups designations are:

**Novice - Green**

**Beginner - Blue**

**Intermediate - Yellow**

**Instructor - Black, Red**

### Run Sessions

Each **run group** will have several 20-minute or 30-minute run sessions daily. The run sessions are limited to only those cars assigned to the **run group**. Watch your schedule and be prompt. You and your instructor should agree in advance where you will meet prior to the start of your run session.

### Staging Area

The Staging Area is used to facilitate the movement of run groups onto **Pit Road**. Five to ten minutes before your **run session** begins, drive your car to the staging area. You and your instructor should have helmets on and be ready to enter the track. You will be checked for correct run group (color dot in upper left of windshield), wristband, appropriate clothing (pants & shirt in natural fiber). A **corner worker** or club volunteer in the Staging Area or the **corner worker** at **Pit-Out** will indicate when you are to move onto **Pit Road**. Do not drive through the pit wall opening until directed to do so. Parking in the staging area is restricted to instructors who must expedite transferring between their cars and their students' cars.

### Pit Road or Pit Lane

From the **Staging Area**, cars move through the opening (turn LEFT please) onto Pit Road before entering the actual track. **Pit Road** is a restricted area to be used exclusively for cars moving onto and off of the track. No one except the assigned **corner workers** should be standing on Pit Road. Parking is not permitted on Pit

Road. Drivers in shared cars are permitted to execute their driver changes in the designated area. Use extra caution if you are on Pit Road when other cars or people are present. The Pit Road speed limit is 25 mph.

## Orientation Laps

These low-speed laps on Saturday morning familiarize the students with the track layout and procedures. The instructors drive their own cars at reduced speeds providing a preview of the track, noting **flag** stations, and demonstrating proper **pit-out** and **pit-in** procedures.

## How to SAFELY Enter the Track (or Pit-Out)

Pit-out refers to the procedure used to move safely from Pit Road onto the track surface. Do not try to “blend” into traffic. The cars which are already on track are moving much faster than you are. Stay fully left until you are approaching the turn-in for Turn 2. Confirm that you are not moving into the path of another car already on track by checking your mirrors and verifying that no one is in your blind spot. A dangerous situation at any track occurs as drivers misjudge the speed of approaching cars and attempt to move into their paths. Cars already on track have the right-of-way and should maintain their speed. When approaching Turn 1, be aware of cars entering the track.

**Pit-out** may refer also to the **corner worker** at the end of **Pit Road** who directs you onto the track when it is safe. Never enter the track until directed by the **corner worker** at pit-out. Do not approach the pit-out area unless you are prepared to enter the track. This is not the place to fasten your helmet, adjust your seat, or clean your sunglasses. Preparations must be completed in the **Staging Area** before moving onto **Pit Road**.

## Pit Signal and Proper Pitting (or Pit-In)

Signal that you will be entering the pits by holding your arm out the window with your left fist extended upward, clearly visible to the drivers behind you. This pit signal should be displayed as you approach the last turn (Turn 14) of the road course. After you exit Turn 14, reduce your speed slightly to enter **Pit Road**. Reduce your speed significantly after you enter **Pit Road**. Maximum speed on **Pit Road** is 25 mph.

## “The Line”

Although there are many paths that will get you around the track, you will find that some paths or arcs work better than others. To avoid a lot of trial-and-error (and terror), your in-car instructor will teach you “The Line”. “The Line” will be different for different cars and different drivers. Don’t follow the car in front of you assuming that they know the proper path. Listen to your instructor. Drivers Education is learning where you want to place your car on the track and how to get it there safely and consistently.

## Anatomy of a Turn: Turn-In, Apex, Track-Out

At some point as you approach a turn, you will have to turn the wheel. That’s the **Turn-In**. Sounds easy, huh? The **Apex** is a little more difficult to explain since there are geometric apexes, late apexes, early apexes and double apexes. In the simplest terms, it is where you next approach the edge of the track after your **Turn-In**. **Track-Out** is easy to explain - it’s where you hope you end up before you are *Out-of-Track*. The classroom instructor will explain these terms in great detail. Your instructor will determine the **Turn-In**, **Apex**, and **Track-Out** points that work best for your car and your driving technique.

## Passing Signals and Passing Zones

Carolina Motorsport Park has three passing zones for Novice students: front straight (Turn 14 → Turn 1), back straight (Turn 7 → Turn 8), and The Kink straight (Turn 9 → Turn 10). Advanced students and instructors have additional passing zones.

*Performing a pass:* The trailing car passes to the RIGHT of the leading car in all Novice passing zones. All passes must be completed safely before the end of the passing zones. No passes will be allowed without a signal from the leading car to the car DIRECTLY behind it. One signal, one car. Do not hang your arm out

the window for “anyone who might be back there”. Passing signals are useful only if the leading car sees the car behind it, and then displays a passing signal to acknowledge their presence and permission for the trailing car to safely pass. No drag racing will be tolerated! The front straight and kink straight passing zones are short, so the leading car must moderate its speed to facilitate the pass.

The most numerous complaints at every driving event are related to PASSING...“!#%&!”, “late passing signals”, “no passing signals”, “unclear passing signals”, “passing without a signal” (a BIG No-No!), “late passes”, “one signal for a group of cars”. Often it is not the inexperienced drivers who are the worst offenders. Practice courtesy on-track and everyone will have a better time. If there is a car behind you, give it the opportunity to pass you. Signals should be given early in the passing zone, but only after you have completed your **track-out** and feel comfortable holding the steering wheel with one hand. If you are waiting to pass another car, be certain that the driver sees you before you begin your pass. The only way that you can be certain that the other drivers sees YOU is when YOU see the passing signal from the other driver.

### **Cooldown Lap**

After receiving and acknowledging the **checkered flag**, proceed at speed to the next braking zone and reduce your speed to allow your brakes and engine to cool before re-entering **Pit Road**. This is a good time for your instructor to give you pointers at a slower speed. Always use the proper **pit signal** and **pit-in** procedure. Even though everyone is headed into the pits at the end of the cooldown lap, you must signal your intentions to enter the pits. A clear **pit-in** signal informs the **corner workers** and other drivers that you saw the **checkered flag** and are heading into the pits. A wave to each **corner worker** on your cooldown lap is a nice way to say *thank you* to those folks watching out for you.

### **Corner Workers or Flagger**

These are the generous folks who endure heat, rain, cold, and bad attitudes to provide you with an extra set of eyes and ears. Unsafe track conditions are communicated to the drivers by the corner workers’ use of **flags** and occasionally by gestures. Pay attention to them. They may help you avoid an unpleasant experience. Your instructor will point out their stations (where corner workers are located) during **orientation laps**. Wave to the **corner workers** on your **cooldown lap** to thank them for their assistance.

# Flags

Always acknowledge a displayed flag.

## Green Flag



The current session is underway with passing allowed in the passing zones after a proper passing signal from the lead car.

## Yellow Flag - Standing or Stationary



As with traffic lights, this flag indicates *Caution*. You may continue to drive, but at a reduced speed. Proceed carefully. Passing is not allowed until the station preceding the next **passing zone** is not displaying a yellow flag (that is, the station is *clear*).

## Yellow Flag - Waving



A Yellow flag in motion means “Extreme Caution”. Something is on or very close to the track. Your speed should be reduced significantly since you must alter your path and progress through that area of the track. Be prepared to take evasive action. Slow down to allow yourself sufficient traction, time, and space to avoid an incident. As with the standing Yellow, no passing is allowed until the station preceding the next **passing zone** is clear.

## Yellow Flag with Red Stripes



This flag indicates that there is a foreign substance or object on or near the track. The foreign substance may be dirt, oil, antifreeze, or gasoline. The foreign object could be a cone, car part, rock, or an animal. Reduce your speed. You may have less traction or may have to alter your path. Either requires a lower speed to maintain control of your car.

## Blue Flag with Yellow Stripe or Solid Blue Flag



Although you are responsible for being aware of traffic behind you, this flag displayed before a **passing zone** advises you that a passing signal should be given for the car behind or quickly approaching you. This does not mean that if you have a car behind you, but no “passing” flag is displayed, that you do not have to give a **passing signal**. Be courteous to the other drivers, whether you are the passer or the passee.

## White Flag



A slow-moving or emergency vehicle is ahead of you. Slow down and proceed with caution. No passing is allowed until you are beyond the slow-moving or emergency vehicle and until the station preceding the next **passing zone** is clear.

## Black Flag - pointed at one car



The car which is the target of the Black flag is being asked to pit because of a driving or mechanical problem. If the Black flag is pointed at you, acknowledge the flag and prepare to pit on this lap. Display the proper **pit signal** before entering Turn 14. Stay to the left as you exit Turn 14. Enter **Pit Road** slowly, and proceed safely to the **corner worker** at **Pit-Out**.

**Black Flag - Standing or Stationary**



All cars are requested to pit when this flag is displayed. Proper **pit-in** procedures must be observed by all drivers. Display the pit signal before Turn 14, slow down entering Pit Road, and await instructions from the **corner worker** on **Pit Road**. No passing is allowed when a standing Black flag (or "Black Flag All") is displayed.

**Black Flag with Red/Orange Circle or "Meatball" Flag**



May be used in place of a Black flag to signal a possible mechanical problem with a car. Acknowledge the flag. Slow down and get off the driving line if you suspect that you are leaking a fluid. Pull safely into the pits, and proceed directly to the **corner worker** at **Pit-Out**.

**Red Flag**



Check your mirrors!!!! Do not slam on your brakes because the driver behind you may not have seen the Red flag. Stop only when you are sure that no one will run into you. Stop safely and then move to the side of the track. Do not leave the pavement or you may start a grassfire. If you cannot see or be seen by a **corner worker** after stopping, roll forward slowly (5mph) until you are within sight of a **corner worker**. If your brakes are hot, do not keep your foot on the brake pedal while you are stopped. Stay in your car with your helmet on. Obey instructions given by **corner workers** in your vicinity. When it is safe to proceed, the flag stations will display a standing Yellow or Black flag. Proceed cautiously to **Pit Road**, observing proper **pit-in** procedures.

**Checkered Flag**



This flag signifies the end of the current **run session**. Acknowledge the flag, but continue to drive your car at a normal pace toward the next braking zone. Begin braking lightly earlier and then continue at a significantly reduced pace on a **cooldown lap** – generally fourth gear using no brakes. As you approach Turn 14, display the proper **pit signal** to let the **corner workers** and other drivers know that you saw the checkered flag and are heading into the pits. No passing is permitted beyond the Checkered Flag.