



Driver's Education Guide

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Chapter 1 : Introduction

You are probably reading this PCA Driver's Education Guide as a result of a visit to our Web site, or maybe as a result of wondering what "Driver's Education" is all about. This Guide is intended to help you in your preparations and to provide information about what to expect once you get to the track. If you are considering, or if you have already made the commitment to a Driver's Education (often abbreviated to "DE") event, please take the time to read this Guide. The better you are prepared, the more you will get out of the event.

So what's contained in this Guide?

Chapter 2	Explains the goals and objectives of the DE – in both the official language as well as a personal, unofficial interpretation.
Chapter 3	Provides answers to frequently asked questions (FAQ's) about our DE events for the beginners and those new to the region.
Chapter 4	Explains how to register and how a typical day is organized.
Chapter 5	Explains about the safety equipment required to participate in an event.
Chapter 6	Takes you through pre-event preparation such as what to bring to the track and getting your pre-event technical inspection.
Chapter 7	Covers your arrival at the track, what to expect and where, how to prepare your car and yourself.
Chapter 8	Covers important information that you need to know when you are on the track, such as the hand signals you may give.
Chapter 9	Provides items to check on yourself and your car after each track session.
Chapter 10	Discusses some of the safety and performance related changes you may consider making to your car.
Chapter 11	Contains important information about the flags you will see on the circuit. All drivers must know and understand the meaning of and expected actions for each of the flags.
Chapter 12	Provides driving directions to the tracks and a list of local hotels.

Chapter 2 : What Is Driver's Education? (The 'Officialese')

The mission and purpose of the Porsche Club of America's Driver's Education Program is to provide a safe, structured and controlled teaching and learning environment. The PCA DE Program is designed so that participants can improve their driving abilities and acquire a better understanding of vehicle dynamics and driving safety. Participants will experience first-hand the capabilities of high performance automobiles in a controlled, closed-course environment and acquire skills that will enhance safer vehicle operation in all driving situations.

One giant word of caution - this adventure can become very addictive. Our instructors will teach you to drive your Porsche the way Stuttgart designed it to be driven. PCA DE schools are run in a safe and controlled environment on a closed course. Like any new sport your instructor will guide you into this exciting world of high performance driving. These weekends are great sources of stories for the Monday morning coffee break. You will have dreams about various turns and wake up with memories of your instructor saying BRAKE or DON'T LIFT. These schools are truly the only safe way to learn the engineering dynamics that went into the development of this famous racing marque. However, it is noted that PCA DE events are not racing, nor preparation for racing. No times or placings are recorded, and no awards or prizes are received by the participants of PCA Driver's Education events; just a lot of fun and camaraderie. Any conduct considered by the Porsche Club of America to be either unsafe or inconsistent with the spirit or purpose of the Driver's Education Program will not be permitted. This approach keeps the events safe for all participants!

...In other words

Driver's Education events allow us to learn more about our Porsches, to learn more about ourselves and, above all, to have fun. You'll learn the rudiments of performance driving in a safe, controlled, and non-competitive environment and be able to use the experience to improve your safety and driving ability on the street. In fact DE events are one of those rare enjoyable things in life that aren't illegal, immoral or fattening. You'll learn, at first, that the limits to how you drive are your's and not your Porsche's. You'll find you have to push yourself harder to approach the limits of the handling of the car and, with your instructor beside you, you will learn to recognize these limits and to control the car as it approaches them at relatively low speed. Many of the lessons learned from a DE experience can be carried over to street driving and you should end each day with an increased confidence level in your own and the car's abilities.

The events are organized with safety as the paramount consideration and with the aim of providing enjoyment for all. Driver's Education events are ***NOT*** races. By requiring a signal from the driver in front to permit a pass - and taking cars off the track if they fail to obey the rules - the competitive element is eliminated. Your ego and pride should not be dented if another car passes you. On the contrary, you should help the other driver get around you while you concentrate on driving your car totally accurately. Remember: the only prize you can win is to get to drive your car home in the same state in which it arrived.

Chapter 3 : DE - Frequently Asked Questions

This section attempts to answer some of the questions that many beginners ask about doing a DE event. Don't worry if you don't understand all the terminology in the answers - the terms will become clear as you read through this Guide.

Am I Eligible?

If you are over 18 years of age and have a current and valid driver's license then, yes, you are eligible. Porsche Club of America (PCA) membership is preferred but not required. If you are a Porsche owner but are not yet a member of PCA, you may read about membership at the PCA Web site www.pca.org where you may also download an application form. PCA membership allows you to nominate a family member or friend to be a member at no extra cost.

Is My Car Eligible?

Generally speaking, any Porsche is eligible for DE events; however, there are always exceptions and variations due to liability issues for different tracks.

1. The type of transmission does not matter, manual, automatic, tiptronic or PDK are all welcome.
2. Hard-top Porsches (including Cayenne's) do *not* require additional roll-over protection.
 - a. If your car does have a roll cage, the bars must be padded in any area that may come in contact with the occupant(s) and their helmet(s).
3. Targas (including 914's) do not require an additional roll bar as long as you run with the OEM top in place. If you want to run without the top, you MUST meet all the requirements for open top cars listed in #5 below.
4. Porsche convertible rules vary by track, but in general they are approved to run with the OEM integral roll hoops, if so equipped. VIR has more stringent rules for all soft top vehicles. This includes Boxsters, 996 and 997 based Cabriolets.
 - a. Pre-2005 Boxsters, 996's and 997's can run at CMP with the OEM integral roll hoops however, they must have additional roll over protection to run at VIR.
 - b. 2005 to present Boxsters can run at both CMP and VIR with the OEM integral roll hoops.
 - c. Please contact the event chair at driversed@carolinas-pca.com for Porsche convertible specific questions.
5. For ALL other Cabriolets, Convertibles or otherwise Soft-top vehicles, these are classified as open top cars and must conform to the following:
 - a. The car must be equipped with roll-over protection that meets PCA Club Race or SCCA Race requirements.
 - b. The top of the main hoop must be at least two inches above the helmet(s) of the occupant(s), with the driver and/or passenger correctly seated and securely belted in the vehicle. The helmet(s) must be at least two inches below a straight line drawn between the top of the windshield and the top of the roll bar.
 - c. The bars must be padded in any area that may come in contact with the occupant(s) and their helmet(s).
 - d. Cars with soft tops must run with the top up.
 - e. Drivers choosing to run with the top down must meet all the requirements for open top cars.
 - i.e. race seats and harnesses, arm restraints and full-face helmets with shield in place.

Will A DE Event Harm My Car?

Porsche's have followed a long tradition of over-engineering its components and as a beginner it is unlikely you'll be stressing any of its mechanical components. The old saying that "Every Porsche Built is a Race Car" has a solid foundation. They are built to be driven and are in their element on the track. Some people may be concerned about stone chips or other cosmetic damage. A good coat of wax, along with judicious use of a bra and/or racers tape can all but eliminate any cosmetic damage.

Is This a Competitive Event?

NO!! We cannot over-emphasize this point.

This is a high-speed driving EDUCATION event. There will be no official timing of the event. The purpose of these events is to teach you how to properly handle your car at speed and to teach you the proper line around the track. This is in no way, shape, form or fashion – racing. Anyone attempting to race will be removed from the event and barred from future DE events. We control these actions by limiting the passing to designated areas and by requiring the slower car to signal the overtaking car. Passing areas will vary depending on the Run Group.

Is My Car Insurance Valid On The Track?

The short answer is . . . probably not, even though this is a non-competitive event with no timing and no prizes. This is a constantly evolving area and one of the noticeable trends over the last couple of years has been the addition of clauses in standard insurance policies that effectively exclude coverage for any Drivers Education event. You would be well advised to read the Exclusions page of your policy in order to confirm that there is not language that would exclude DE events. Pay close attention to clauses regarding: (1) events on a track, (2) accidents on any sort of "racing surface" or (3) vehicles used in a high performance driving or racing instruction course or school. If you don't find such language you may be happy to leave it at that – or you may wish to talk to your agent. Just a word of caution - answers from agents may be wrong and do NOT assume that that insurance companies know anything about DE. Be sure to understand and explain that DE's are NOT racing and take the time to get something in writing. And be aware that there have been rare cases where just asking the question has caused an insurance company to drop a motorist, even from their regular coverage.

It is possible to get insurance specifically for DE events, PCA has arranged coverage through Lockton Affinity. Please see <http://pcahpdeins.locktonaffinity.com/Default.aspx> for more information.

What Do I Need To Do To My Car Before I Bring It To The Track?

If you are a beginner attending your first few DE weekends, the answer is . . . Nothing. Your car must be in good working order which means insuring that all factory systems are fully functional, tires have adequate tread, brake pads are sufficient and proper maintenance has been performed. You will receive a packet containing information and the appropriate forms once you have been accepted into the event. READ IT ALL!! This packet contains the Technical Inspection form that will need to be completed prior to attending the event. This tech inspection must be completed by an authorized inspector (a list of these is located on the Carolinas Region web site). We do **not** accept your signature as the authorized inspector. Most Porsche dealerships and independent shops are familiar with our events and performing a Tech Inspection. Typically, they will charge about one hour of labor unless you require more comprehensive work than just an inspection. It is strongly recommended that you have your brake system bled or flushed as part of the Tech Inspection regardless of how old or new your car is!

Once you graduate to higher "run groups" you may want to add various safety or performance enhancements. If you are thinking of installing seats and harnesses, please read Chapter 10 for information about PCA rules for such modifications.

What Special Equipment Do I Need?

As many of our long-time participants may say . . . All you need is a helmet!

Any driver or passenger on the track *must* be wearing a helmet. You may have friends who can lend you one, or you can purchase a helmet. You must provide your own helmet. There will not be spares or loaners available from the region at the track. See Chapter 5 for more detail about helmets.

There are many other things that may make the weekend more enjoyable – this information is also

contained in Chapter 5.

What are Run Groups?

The Event Chair and the Chief Driving Instructor (CDI) work together to assign drivers to a run group based on track driving experience. You start in the Green Group and move to a higher run group as your skill improves. There is no predefined schedule for how long it takes to progress to the next run group. Good judgment, experience and check rides from senior instructors are the only things that will advance you from one run group to the next. Solo drivers must have a documented history of solo level participation with PCA or equivalent. Documentation may be a club log book, written recommendation from a Chief Instructor or an online profile in www.clubregistration.net. You will wear a wristband that indicates your driving experience and your car will have a sticker that indicates your run group.

The run groups are:

Run Group	Description	Instructed
Green	Beginner driver with little or no track driving experience	Yes
Blue	Beginner driver, still learning technique *Blue drivers will drive solo in Blue prior to moving to White	Yes*
White	Intermediate driver, drives solo *Occasional check rides will occur	No*
Black	Advanced driver and/or Instructor Traditional passing areas	No
Red	Advanced driver and/or Instructor (by CDI Approval Only) Expanded passing rules. Drivers must attend the EP driver's meeting and will be identified by distinct armbands.	No

What Type Of Instruction Will I Receive?

As a beginner you will receive both classroom and on-track instruction. In the classroom sessions you will be briefed on the terminology that will be used by your instructor, basic performance driving concepts, safety and flag meanings etc.

An instructor is assigned to you for the event and will most likely stay with you for the entire event. We make every effort to assign students to instructors with similar cars but no guarantees are made here. Remember, every instructor has something to offer regardless of what they drive. There is no extra charge for instructors.

You will be on the track with as many as 24 other cars. Everyone in your group will have similar driving experience and passing is limited to designated areas. No one will go blowing by you unexpectedly and by the same token, you are not allowed to pass anyone without first getting the proper passing signal. Violators will be removed from the track.

How Fast Can I Drive?

After you learn the line around the track and get a feel for your car's handling you are allowed to drive as fast as conditions and your instructor will allow.

NOTE: This does not say as fast as your car will go! None of us are that good.

Can I Come for One Day?

The majority of our events are two days and just as each event builds on the last, each day builds on the previous. If you wish (or must) only participate on Day 1 that will be allowed, however the fee is the same as if you were attending the entire event – basically there are no discounts for

single days. We will not allow anyone to come for only Day 2.

Can Two People Share The Same Car?

The only requirement is that the driver's will need to be in different run groups. Each driver will need to complete their own registration and each driver will pay the event registration fee. Read Chapter 4 for more information about registering with a co-driver.

Can Family Members Or Friends Ride With Me?

No. Only registered drivers are permitted on the track and if there is are two people in the car, one must be an instructor. So you won't be able to go out with your spouse or with friends. You are not allowed to give rides to anyone! As a region, we do not encourage our instructors to drive student cars, however if you and your instructor feel that this would be beneficial to your education – arrangements can be made with the CDI at the event.

If "Track Touring" rides for charity are available – this is a possible solution to get family and friends a look at the track. Cars, vans and SUV's drive in low-speed convoy around the track and you are welcome to drive your friends and family around at that time.

What Happens If The Weather Is Bad?

The event is run come rain or shine although if conditions are extremely poor sessions may be cancelled to protect our corner workers. Of course, when it is wet you will be driving somewhat slower as your tire grip will be reduced.

Chapter 4 : DE Event Administration

The following sections deal with the general administration of DE events. Learn about how events are organized and how to register for an event.

General Schedule

The Carolinas Region runs four to six events per year at a variety of different tracks. Our 2 home tracks are Carolina Motorsports Park (CMP) and Virginia International Raceway (VIR). Both of these road courses provide challenging driver training areas no matter what your skill level. At CMP, our events utilize the 2.28 mile circuit with fourteen turns. At VIR, our events utilize the full course layout which is a 3.27 mile circuit with twenty turns and numerous elevation changes. The specific schedule dates vary slightly from year to year so check the Region web site, www.carolinas-pca.com or *Tobacco Roads* for information. As the time approaches for registration to open, you will also be able to see event details on the registration site, www.clubregistration.net. Event registration opens eight (8) weeks prior to the event.

Registering For A Carolinas DE Event

In general, DE events tend to sell out and fill up fast, it is important to act promptly. Event registration opens eight (8) weeks prior to the event. You should check the region's website (www.carolinas-pca.com – Driver's Education section) for both event and opening dates and then set yourself a reminder. Registering on the first day is the best plan if you really want to attend the event. We have seen run groups as well as entire events fill up in the first day. While we do give a priority to PCA members, Porsches will be running alongside other Marques and a full event will have 130 or more cars.

If you have not used www.clubregistration.net before, there are a few steps you will need to do before you can complete your DE application. The first thing you will need to do is **create** an account with a username and password. This is NOT your PCA account, it is different and you control what you use. This is done by clicking on the "**Create Account**" link just under the login section.

Once you have an account, you will need to complete a few key pieces of your background information. The sections below will need to be completed before you can complete your DE application but it will only take a few minutes. The good news is that once it's done, you will only have to update it when things in your background information change. The sections you need to complete are all found under the EDIT PROFILES tab located in the upper left of the main screen. The critical areas used by Driver's Ed are:

EDIT PROFILES ->Personal Info

Complete all the required information (indicated with *) on this tab. NOTE: The email address you enter is used for all communications regarding events so PLEASE be sure that it is correct, current and will accept documents from this address.

EDIT PROFILE ->Club Memberships

Registration fees and acceptances are impacted by PCA membership so make sure you have your PCA Membership Number entered correctly. Be sure to click the "ADD" button once you've entered the information and before you leave the screen. INSTRUCTORS: Please be sure to add your PCA National Instructor number into this section in order to expedite your acceptance process.

We accept registrants based on receipt of your payment, however, during the first three (3) weeks priority is given to PCA members – if your PCA number is not provided, you will not get priority.

EDIT PROFILE ->My Vehicles

You can add as many vehicles as you think are appropriate and that you may use for events. Just be sure to click the "ADD" button on the right for each car.

EDIT PROFILE ->Emergency Contact

Due to privacy acts we are not permitted to ask for any medical information so we only need you to provide a contact. Please enter the name and phone number for the person we should contact, and as before, be sure to click the "ADD" button before you leave the screen.

EDIT PROFILE ->Driving Resume

Run group assignments are based in part on the information **you** provide, so the more details you provide in this section the better we can place you in the appropriate run group. If you have not run with the Carolinas Region before, please provide a contact name and email in your profile notes so that we can verify your driving experience. Again, be sure to click the "UPDATE" button on the bottom right before you leave the screen.

Payment

When you submit your application, you will be directed to an "Events Payment" screen. The fee structures for each event can vary and they will be included in each event's registration.

PLEASE REVIEW THE ENTIRE PAGE TO BE SURE IT IS ACCURATE!

You can either submit payment via credit card or you can mail a check to the address indicated. If you mail a check, please be sure it indicates what event the payment is covering. **Remember** - acceptance into an event is based on date of your payment, **NOT** the date of registration so be sure to process your payment as soon as you can.

Sharing a Car

You may share a car with another driver but it must be prearranged. **Each driver MUST fill out their own application and pay the event registration fee.** Please be sure that both drivers have the same car in their profiles and that both enter the event with the same requested car number. There are several custom questions added to each event – so please indicate to us that you are planning on sharing the car so that we can ensure that you are assigned different run groups. It is not possible to share a car if both drivers are of equal experience and would be in the same run group.

Car Numbers

Car numbers need to be unique, unless the same car is being used by multiple drivers and will be assigned on a **FIRST PAY - FIRST ASSIGNED** basis. You can REQUEST a particular number when you are registering for the event. If your number is available, it will be assigned to you for that event. If you request a number that has already been assigned (the site will tell you if you requested a duplicate number) the Registrar will assign you an alternate number. Please try to avoid this process, as the Registrar will not always be able to know what you think is a good alternative.

Status

You will be able to check your status on the www.clubregistration.net site by viewing the Roster for the event. All applicants will have a status of PENDING until payment is processed. Once your application has been processed, you will receive an EMAIL from the website letting you if you've been CONFIRMED or WAITLISTED. Our Drivers Ed events sell out quickly, and we usually get more applicants than we have room for, so not everyone will be CONFIRMED.

If you are CONFIRMED, it means that your application has been processed, and we look forward to seeing you at the event. The email will provide you with the additional information you need, such as lodging information, the Tech Form, etc.

If you are WAITLIST, not all is lost because people do cancel and we fill their spots from the waitlist. You will be contacted via email regarding the next steps, but if you do not get confirmed, you will be refunded your money.

PLEASE DO NOT EMAIL OR CALL ASKING IF YOUR CHECK WAS RECEIVED OR WHERE YOU ARE ON THE WAITING LIST!! We process almost 200 applicants for each event and can't respond to every email or phone call. We will process payments as they are received, as quickly as we can. Believe it or not, we have lives outside of Drivers Ed and would like to live them once in a while, so your status may not be updated immediately. ClubRegistration.Net will have the most up to date information available.

Cancellations/Refunds

PLEASE READ THIS CAREFULLY!!!

While no one ever wants to cancel, we know that sometimes things come up that are unavoidable. Entry fees for all participants (that includes instructors) are refundable only if requested in writing (email is fine) to the Registrar, three (3) weeks or more prior to the event. NOTE: there is a \$25 administrative fee for all refunds.

Within three weeks of the event, NO REFUNDS WILL BE ISSUED. NO EXCEPTIONS!!!

Instructors

VERY IMPORTANT!!! PLEASE READ!!! IT’S FOR YOUR OWN GOOD

If instructors are needed for the event, there will be an Instructor option in the entry type.

All instructors will submit their application and entry fee as described above. If you select the instructor option you are telling us that you are an instructor and you would like to instruct for this event.

Make sure you have your PCA INSTRUCTOR NUMBER correctly entered in the “My Club Membership” section of your background data when you fill out the registration form. If this information is not provided or you are not a PCA certified instructor, you must provide: (1) a contact to verify your experience and (2) a current driving resume that includes other clubs that you may instruct for. The CDI will review this information and determine if you are approved to instruct. During the first three weeks of registration, priority will be given to the instructors that have completed the PCA National Certification.

While we do our best to have you instruct only one student per event, it all depends on the participants. If you would like to have 2 students, please indicate this in the additional comments or custom questions.

If you instruct 1 student, you will drive at the reduced instructor rate for the event.

If you instruct 2 students, your instructor fee will be refunded back to you after the event.

If you cancel late or do not show – you will not be allowed to instruct in your next Carolinas DE.

Event Organization

Typically the track will open at 7:00 AM and the track-side tech inspections and registration will be open from 7:00 AM to 8:00 AM. A driver’s meeting will be held each morning at 8:00 AM followed by the first run group getting on the track around 8:30 AM. We stop for a one hour lunch break and continue until 5:00 PM. All DE participants are divided into Run Groups according to experience and ability. Each run group will have 20 – 30 minutes session on the track (typically 4 per day). When you check-in at the track, you will be given a timetable for the event.

There are local churches and communities within earshot of the tracks and as track users we respect the local communities. Most beginners with street-muffled cars (less than 85 dB) will not have to worry about these noise regulations but please be aware of them. They do vary from track to track but a typical guideline is:

SATURDAY	ABSOLUTELY NO UNMUFFLED ENGINES STARTED PRIOR TO 8:00 AM
SUNDAY	ABSOLUTELY NO UNMUFFLED ENGINES STARTED PRIOR TO 8:00 AM BETWEEN 11:00 AM AND 12:00 NOON ABSOLUTELY NO UNMUFFLED ENGINES ARE TO BE STARTED

We will attempt to maintain the schedule that is provided and we will endeavor to provide equal run time for each group. Changing weather, track condition and other factors can disrupt the activities and schedule without notice. No guarantee is made of track time available to the participants.

Chapter 5 : Mandatory Safety Equipment

The following section covers the only mandatory safety equipment - a helmet.

A helmet is a mandatory safety item for Carolinas DE events and all helmets must carry the Snell Foundations certification. The helmet safety standards are updated every five (5) years, the current standard for auto-racing helmets being 2010. The "SA" designation is generally required for automotive use and the "M" designation is for motorcycle use. Read about these standards at the Snell Foundation Web site: <http://www.smf.org>

For Carolinas Region DE's, we allow the following helmets:

SNELL SA2005
SNELL SA2010
SNELL SAH2010

We do not allow M rated helmets.

NOTE: You must provide your own helmet. Spare or loaner helmets are NOT provided by the region. If you drive a properly prepared open car (full roll cage, etc) we require a full-face helmet with the shield in place. If you drive a coupe or sedan you may wear any style of approved helmet.

It is often asked, "How much do I need to spend on a beginner's helmet?" to which the answer is, "How much is your head worth?" Seriously though, price isn't always a good guide. Helmets come in a variety of price ranges running from \$250 to over \$1000 depending on the weight, paint, etc. A good helmet that is properly cared for will last several years.

CMP does offer weekend helmet rentals. Please contact the track for more information on helmet rental.

The fit of your helmet is very important and a very personal choice. You will spend a bit of time inside it - some of it in unpleasantly hot weather. Although the Internet does have various fitting guides and you may get a better price, it is recommended that you look at local suppliers where you will be able to try on various helmets and get good advice as to selection. Not all same-sized helmets feel the same and by trying them on, you will be able to make a much better choice. Various styles are available and, again, a local supplier will be able to help you choose. For example, some helmets are designed primarily for open cockpit racing and have a small eye port, others have a larger eye port to take account of eyeglass wearers (if you are an eyeglass wearer, don't forget to take them with you when you go to buy a helmet), some have full-face protection, others are open-face, some have a visor, others don't, etc.

Modern helmets can be a little claustrophobic if you are not used to wearing one. Your first track event is not the time to find you are uncomfortable. It is suggested that you practice wearing your helmet at home before coming to the event.

Here are a few suggestions as to where you can get helmets:

- Apex Performance: 866-505-2739 – www.apexperformance.net, located in Murrells Inlet, SC
- CDoc: 800-915-2362 - www.cdock.com, located in Gordonsville, VA
- Discovery Parts: 800-748-7223 – www.discoveryparts.com, located in Fayetteville, GA
- O.G. Racing: 800-934-9112 – www.ogracing.com, located in Sterling, VA
- Racer Wholesale: 800-886-7223 – www.racerwholesale.com, located in Alpharetta, GA
- Safequip: 800-247-4260 – www.safequipracingproducts.com, located in Columbia, SC
- Simpson World: 800-473-7077 - www.simpsonraceproducts.com, located in Mooreseville, NC
- Stable Energies: 973-773-3177 - www.stableenergies.com, located in Garfield, NJ

Chapter 6 :Pre-Event Preparation

So, you've registered for an event. Congratulations for taking the plunge! Below are some other topics and items that will aid in your preparation for the event.

Accommodation

Once you have been confirmed for the event, don't forget to settle your accommodations. Depending on where you live, the event may require you to travel on the day or evening prior to the event and with a two day event you will probably need to stay overnight near the track. See Chapter 12 for directions and some of the local hotels.

Spectators

Spectators are welcome at Carolinas DE events. If you want to bring along a spouse or a friend please feel free to do so. The spectators will be required to sign both track and PCA waivers of liability at the track entrance. Also note, some tracks may require a fee – this is track specific and governed by the track and it is not the policy or practice of PCA.

Technical Inspection

ALL cars MUST go through the pre-event technical and safety inspection before each and every DE event. This is an important part of your preparation and this includes: (1) instructors, (2) log-book cars and (3) cars that have an annual certificate.

The Web site (www.clubregistration.net) contains the Tech form that you need to complete. Print or photocopy the form, fill-in the top section, and present it with your car at the inspection station. Each event requires a separate form and the car must be inspected no more than 4 weeks prior to the event. NOTE: You cannot do the checks yourself and sign the form – ALL tech inspections must be done by an approved vendor. Vendors may contact the DE Chair at driversed@carolinas-pca.com in order to be added to the approved list.

You can save yourself some stress by arranging your tech inspection in good time, and by getting any remedial work done early. You can check many of the items yourself before bringing it to a shop which is highly recommended. Virtually all the items on the interior and exterior checklist can be easily verified, as well as the engine and trunk components: Check your brake lights, inspect your tires for wear, learn to determine how much brake pads you have left, keep records of when the brakes were last bled and when the brake fluid was last changed and so on.

Don't leave yourself open to disappointment by leaving the inspection till the last minute, only to find you need some work done which may mean you miss the event.

Tip: Always have your brakes bled, not just the brake fluid topped off.

Car Number

All car numbers need to be unique, unless the same car is being used for multiple drivers. When you registered for the event you requested a car number and if that number had not already been assigned it should have been included in your confirmation email. Please use the number that was provided back to you in your confirmation – this is the number you are expected to use and it's easier to be prepared then to make adjustments at the track. The acceptance list on the web has details of the confirmed car numbers.

There are several options for numbers and for your first few events you do not need to go to the expense of having numbers made. You may use masking tape, painters tape or no lift racers tape to form the numbers. These tapes all have less adhesive than duct tape and will not damage the paintwork of your car. You can also write your car number on the body or the windows using sneaker whitener but keep the following in mind: (1) if it rains you will have a runny mess on the car and (2) when you

subsequently rub the whitener off with towels and window cleaner, the specs that get on the bodywork and trim are very difficult to remove. Liquid Window Chalk is a better alternative.

Once you have made a commitment to do several DE events, you may want to consider getting your assigned car number made up on a removable decal. Numbers should be at least 8 inches high. You may choose numbers made from magnetic material, or vinyl numbers stuck on to a magnetic background circle. Remember that a magnetic decal may come unstuck at high speeds. It is therefore recommended to use some masking tape to secure the leading edge of the decal. This is especially true for magnetic panel numbers; less of a problem for individual magnetic numbers.

Place your pre-made numbers on both sides of the car, or use masking tape to form your assigned number. Make sure they are as large as possible (and at least 8 inches high and 1 inch wide) so flag marshals can easily identify your car when you are at speed on the track. Car numbers must be displayed on the left and right side body panels. The numbers must be in a contrasting color to the body panel color.



Here are a few suggestions as to where you can get numbers made:

- A local sign shop may be able to help you such as Fast Signs.
- Discovery Parts – <http://www.discoveryparts.com>
- [Clubregistration.net](http://www.clubregistration.net) also offers both adhesive and magnetic numbers
- Solotime also offers a wide selection of car number solutions at reasonable prices (see <http://www.solotime.com> or their advertisement in *Panorama*).

What Do I Need To Bring?

This is a good checklist that you may want to print out and keep handy as you get ready for the event.

Necessary items:

- Drivers license and PCA membership card
- Tech Form, properly completed by an authorized service facility
- Be sure your ICE form has been completed online at www.clubregistration.net
- Your car numbers or materials to create them (they need to be a minimum of 8" high, 1" stroke)
- Cooler with Water, Gatorade, or other sports drinks and ice. You will get dehydrated at the track so you must drink plenty of liquid. *Avoid soft drinks!*
- Helmet: SNELL SA2010, SA2005, SAH2010 only!
- Sunscreen and/or hat, there is no shade!!!
- Full tank of fuel

Recommended items:

- Maps and directions to the hotel and the track
- Oil, an extra quart or so and a funnel
- Brake Fluid
- Tools, duct tape, bailing wire... whatever you need to make it through the weekend
- Glass Cleaner and Paper Towels, you'll need them in the morning
- Lawn chair
- Tire pressure gauge
- Torque wrench
- Tarp or ground sheet for placing your belongs on and to cover them if it rains. Usefully on wet days for keeping the rain off of everything.
- Plastic bags for storing the contents of glove compartment, door pockets etc.

"Nice To Have" Items:

- E-Z Up Tent
- Camera or Camcorder
- Tank of air
- Jack, jack pad and jack stands
- Fire Extinguisher, just in case!
- Fan belt, spare brake pads, spare fuses, relays or any other simple items that may shut you down for the weekend

Appropriate Clothing:

The clothing you wear is intended to keep you safe and comfortable but the weather can be very unpredictable so please plan accordingly (bring one of everything). The tracks provide little shelter from the weather and the event will run rain or shine. Please come prepared!!

- Carolinas Region requires you to wear long pants made of natural fibers such as cotton or linen for driving (jeans work well). Shorts are not acceptable.
- Long sleeved shirts or natural fibers are recommended but since it does get hot in the South, the event chair may elect to allow short sleeved shirts. Be sure you have both. Synthetics are not allowed.
- Shoes should also be made of natural fibers and should have a thin, flat sole with adequate grip so they don't slip off the pedals. Worn sneakers or boat shoes work well for many drivers. Jogging shoes with thick soles or any other thick soled shoes are not recommended. You communicate with your car through the soles of your feet and thick soles tend to insulate that feeling. Leather-soled shoes tend to be too slippery and are not recommended. Sandals or other loose fitting shoes are not acceptable.
- Approved driving suits, shoes and gloves are acceptable, but not required.
- Rain protection such as a poncho or waterproof outer clothing and an umbrella.
- Change of clothing for when you are not driving – whatever is comfortable and suitable for the prevailing weather.

Chapter 7 : At Last.....At The Track

The day of the DE event has arrived. Read about what goes on and what you'll need to do. The sections are presented in more-or-less chronological order.

Getting To The Track

Check Chapter 12 for details of how to find CMP and/or VIR. Remember, if you are going to your hotel first, don't forget directions to it as well.

Remember that we all enjoy the use of our host tracks. Please obey speed limits and other traffic directions so that we may continue to have the support of the local communities. It is not unknown for the local constabulary to post speed traps when they know the club is at the local track.

When You Arrive At The Track

Get to the track early and with a full tank of fuel (you'll use it a lot faster than on the highway and you don't want to get towed off the track on your first day). Typically, Tech and registration will be held at the track the evening before the event (i.e. for a Saturday/Sunday event – Friday evening) from 5:00 PM until 7:00 PM. The track will be open after 7:00 PM for drop offs but you will need to return the following morning for registration and tech. They will be available the morning of the event from 7:00 AM to 8:00 AM.

Instructors and drivers meetings are held each morning starting at 7:45 AM. Each group takes their turn on the track according to the schedule and the Green Run Group drivers will have their first classroom session on Saturday morning. The schedule, run group assignments, student-instructor match-ups will all be provided at check-in. Run Group assignment will be posted on the web site prior to the event, however changes may occur up until the event in order to include as many participants as possible.

Registration and the Paddock

There are differences in the sequence for CMP, VIR and NCCAR, but the overall steps are the same.

For CMP:

Before entering the track, go to the Registration building located on the right on the track entrance road. Here you (and anyone that is with you) will:

- Sign the CMP track waiver.
- Sign the PCA insurance waiver.
- Verify the ICE (In Case of Emergency) form.
- Show your driver's license – Required for participants only.
- Receive the check-in packet that contains: schedule, run group assignment and sticker, event rules, a track map and a list of your fellow DE drivers.
- Receive a wristband for the event that identifies your participation level in the event (i.e. non-driver, instructed driver, solo driver, instructor, EP driver). This band should be worn on your left wrist for the entire event. They are waterproof and will last for a 2 or 3 day event.



Once you have completed check-in, you will enter the track and proceed to the paddock area to find a parking place. Just look where the other cars are parked and leave adequate room around the cars to allow for trailer unloading/loading, belongings on the ground, etc.

For VIR:

As you are entering the track you will be stopped at the track gate where you and anyone that is with you will be asked to sign the VIR track waiver.

You will enter the track and proceed to the paddock area to find a parking place. Just look where the other cars are parked and leave adequate room around the cars to allow for trailer unloading/loading, belongings on the ground, etc.

Once parked, go to the Registration building located next to the front straight in the corner of the paddock area. Here you (and anyone that is with you) will:

- Sign the PCA insurance waiver.
- Verify the ICE (In Case of Emergency) form.
- Show your driver's license – Required for participants only.
- Receive the check-in packet that contains: schedule, run group assignment and sticker, event rules, a track map and a list of your fellow DE drivers.
- Receive a wristband for the event that identifies your participation level in the event (i.e. non-driver, instructed driver, solo driver, instructor, EP driver). This band should be worn on your left wrist for the entire event. They are waterproof and will last for a 2 or 3 day event.

**For NCCAR:**

You will enter the track and proceed to the paddock area to find a parking place. Just look where the other cars are parked and leave adequate room around the cars to allow for trailer unloading/loading, belongings on the ground, etc.



Once parked, Registration will be set-up somewhere in the paddock area and you (and anyone that is with you) will need to stop first.

- Sign the PCA insurance waiver.
 - Verify the ICE (In Case of Emergency) form.
 - Show your driver's license – Required for participants only.
 - Receive the check-in packet that contains: schedule, run group assignment and sticker, event rules, a track map and a list of your fellow DE drivers.
- Receive a wristband for the event that identifies your participation level in the event (i.e. non-driver, instructed driver, solo driver, instructor, EP driver). This band should be worn on your left wrist for the entire event. They are waterproof and will last for a 2 or 3 day event.

Preparation for Trackside Tech

Now attend to your car and empty it - empty it of everything. You don't want that old coke can under the seat rolling under your pedals on the first lap do you? Or that old kid's toy on the back seat hitting you the first time you brake hard? Check the trunk(s), the door pockets, glove compartment, remove your radar detector, seat covers and any other loose items. Double check under the seats. If you have detachable floor mats they, too, should be removed - both at the front and rear.

Apply your numbers and use your tape to cover the headlights and fog lights to protect them from any stone chips or debris on the track. Some people also tape the leading edge of the hood and the side view mirrors. You may have a bra on the front of your car for debris protection when on the street. At high speed bras can sometimes flap around and actually cause more damage than debris. It is advisable to tape down a loosely fitting or a magnetic bra.

Trackside Safety Inspection – “Grid Tech”

Place your pre-event Tech form under the windshield wiper; put your helmet on the passenger seat, leave the trunk and engine lid unlocked and drive slowly to the Tech line. Here the trackside tech inspection crew will greet you, descending on your car to check the torque of your wheel nuts, the state of your brake pads, that your car is empty of junk, that it has its numbers etc. You will probably be asked to use the brake pedal so they can check your brake lights and also 'blip the throttle' so they can check the throttle return is working correctly. A small sticker will be placed on your windshield indicating you have passed Tech. Return to your parking place and check that your engine lid and trunk are locked closed.

You only need to present your car to trackside tech on the evening before the event or on the first morning. Please note this is not a comprehensive inspection and does not replace the pre-event inspection. It is performed at the track before you are allowed to drive. Participant can bring their car to tech at any time during the event if they suspect a problem.

Drivers Meeting

These are mandatory meetings that are held each morning of the event – Please be on time! You may have a few minutes to spare but check your timetable each morning for the Drivers meeting. The DE Committee will tell you about the track, any special conditions on the day, the location of the passing zones, how the flags will be used, etc. While the student / instructor match-ups are done prior to the event and provided at registration ALL drivers are expected at the meeting. At the end of the meeting the instructors will go thru a roll call so their students can find them. Depending on the instructors workload (some may have two students) you will figure out how and where to meet before run sessions.

Classroom Sessions

You will have a couple of classroom sessions where a senior instructor will talk you through the theory you will be (or have been) practicing. The times for these sessions are included in the schedule - please ensure you are on time for these sessions. Green and Blue drivers are required to attend their specified sessions; however, anyone can attend any other session that they would like. Green and Blue drivers that have not participated in a Carolinas DE will be provided with a log book in order for them to document their events. In addition to the classroom sessions, the event may provide time early on the first day for a few orientation laps for any driver that is unfamiliar with the track. These laps are NOT at speed and do not require you to wear your helmet. If they are being offered, they will be announced at the drivers meeting.

Evaluation Forms

Your instructor will be given a student evaluation form that they will complete at the end of the event. This will be given to the Chief Instructor and used by the DE committee for future run group and instructor assignments. If you do not have one, you will be provided with a Drivers Log Book at one of

your classroom sessions. Please make sure you get your instructor to complete this for you so you know what you did well and where you need to improve. As a student, you will also be provided an instructor evaluation form. Your evaluation will be used to help the Chief Instructor work with the instructors to help them be the best that they can.

Chapter 8 : Preparation For Driving

Let s now go through some topics in preparation for actually getting out the track.

Seating Position

The seat position you use for the DE is unlikely to be the same as you use on the street. The majority of drivers position themselves too far back or with the seatback inclined too much. DO NOT imitate what you see on TV with either the NASCAR driver's position - upright and close to the wheel, or the Formula 1 drivers who appear laid back with outstretched arms.

The correct seating position takes into account how you contact the seat, leg position and arm position. In order to get better leverage on the steering wheel and in order to get a better "seat-of-the-pants" feel of the car, it is usual to sit a little further forward and more upright, and perhaps a little lower than you may do for street driving. Refer to the picture below and try following the recommendations:



Depending on your height with your helmet on and whether the car has a sunroof or not, you may find it necessary to lower the seat.

Sit in the seat by *pressing* into it so that you maximize your body area in firm contact with the car. Pressing down snugly will help the car communicate with you.

Your back should be flat against the seat back, you backside firmly wedged in the right-angle between seat back and seat cushion and the underside of your legs should be in contact with the seat.

Put on your seat belt and ensure it is a tight fit - you don't want to be sliding around the seat at the first sharp corner.

Adjust the forward/rearward position of the seat so that you can move your feet easily between the pedals with clearance under the steering wheel. There should be a moderate bend at the knees when you fully depress the pedals with the ball of your foot (not the toes).

Adjust the seatback angle so that with your arms extended and without pulling your shoulders away from the seat you can rest your wrists on top of the steering wheel (at the 12 o'clock position). Now when you place your hands on the steering wheel at the 10 and 2 o'clock positions your arms will be bent and your shoulders should still be firmly pressed against the back of the seat. This slight bend in your arms, even when being fully outstretched during cornering, helps prevent the arms from getting tired through over-extension. This same position should also allow you to change gears without needing to lean forward.

Now that you've got your seating position, don't forget to adjust the exterior mirror on the driver's side and your rearview mirror in the car. You should be sure that you can see the areas behind you properly.

NOTE: You instructor may ask that they be allowed to adjust the exterior mirror on the passenger's side in order for them to help monitor things going on behind you as well.

Windows

The driver side window and the passenger side windows must be completely down at all times. Sunroofs must be closed while on track. Keep arms inside vehicle unless giving a passing or pit signal.

Tire Pressure

With the tires cold in the early morning, check the tire pressures all round. As a starting point ensure they are set to the recommended values given in the car's handbook. Air is available if needed. At CMP, air is by the gas pumps. At VIR, at the tech shed.

Staging

"Staging" is designed to minimize the time between run groups by ensuring that the next group of cars is ready to get on the track as soon as the previous group is off. Cars are staged in the hot pits area. There are separate entrance and exit roads to the hot pits and you need to be sure you use the correct routes. These will be discussed during the Drivers meeting. Prepare for your run in good time. Go to the bathroom if you need and ensure you are at the staging point with several minutes to spare. Generally your instructor will meet you at staging, although he/she may have made arrangements to meet you in the paddock area.

Communicators

Your instructor may be equipped with a two-way communicator to help in-car communication. He/she will give you an earpiece attached to a boom microphone. Put your helmet on first, then take the earpiece and gently insert it inside your helmet between your ear and the helmet padding. The boom microphone will be naturally positioned in front of your mouth. At the end of the run, remove the communicator by grasping the earpiece. Do not pull the connecting wire - they do not last long if you do. If your instructor doesn't have a communicator, don't worry - you will still be able to hear their comments and instructions.

It's All In The Mind

So now you're ready for your first track sessions . . . there are (at least) two ways you can approach your first few track events.

Let's call the first the 'hare' approach. You've figured out a way to get to drive your Porsche on the track, you've only got a handful of sessions and you want to make the most of them. You want to get out there and you do everything you can't do on public roads: pushing the car's limits as much as you can, trying to squeeze every tenth of a second out of it that you can -- full on the gas; full on the brakes; catch that guy in front etc. At your first DE you can't help but think (however irrationally) that you are going to be the best and bravest, driver out there. This is fine and may be a lot of fun, but it will only get you so far. It's like trying to lift the absolute maximum weight you can manage on your first trip to the gym, and then calling that a workout. It's utilizing the perpetually 12-year-old part of your brain. Before too long, you'll have 'pushed' the car as hard as it will go and -- what the heck? -- lower-powered cars are still overtaking you. You walk away scratching your head.

Or... you stumble on the second way of approaching a DE driving, the 'tortoise' approach. It's linked to "you'll go faster if you'd just learn to slow down" school of thought which experienced drivers will be able to tell you about. The approach is to leave your ego in the paddock and see what you can learn from your instructor - your mind as a blank slate, open to listening and learning. Learn the best possible line through each turn - long before you're carrying the maximum amount of speed through each turn - and getting a sense of the subtler relationship between driver inputs and the way the car reacts. It's a slow process and you need to accept the fact that the faster guys are faster because they've been doing it longer, and have taken the time to figure out the less fun parts of the

equation.

Beginners always try to sort out the difference between fast and slow lap times based on the specifications of the cars involved. It's the Viper mindset. The more experienced guys know that horsepower doesn't matter very much -- that 90% of the journey is learning how to drive, and the other 10% is about having a fast car. Hopefully, you'll soon realize that you're just starting the journey out and there's going to be a long and fun road before you.

On The Track

It's quite simple really, just remember . . . "Asphalt - good, Grass - bad"

Remember the goal of a DE is to learn about your car and yourself and to have fun. As this guide has tried to emphasize, the better you are prepared the more you will enjoy the experience.

Safety is our number one priority. THIS IS NOT RACING!!! Passing signals and zones will be strictly enforced. PCA's recommended "Two Spin" rule will be in effect for the event. Our CDI will talk with any driver who spins twice, goes two-wheels off more than twice in one day or exhibits any dangerous behavior. If it is felt that a driver's actions compromise the safety of the event they may be asked to leave the event. Any metal to metal contact between cars is grounds for dismissal from the event.

Both feet in! In the event you loose control of your car, as in a spin, the best rule is both feet in. This means brake and clutch fully depressed until you come to a complete stop. You may flat spot a tire but you stand a much lesser chance of damaging your engine and transmission. If you are about to run off the track, it is better to drive off rather than to try and save the car. Holding the car on the track and spinning out creates a much more dangerous situation for both you and the other drivers on the track. It is always better to be off track under control than on track and out of control. Always be aware of the traffic ahead of you, the traffic behind you and the corner workers in their stations.

There are many books and articles as well as Internet sites that explain the principles of performance driving. There are MANY so if you have the opportunity, you are recommended to read some of these. Here are just a few examples:

Secrets of Solo Racing by Henry Watts

Driving in Competition by Alan Johnson

Going Faster by Carl Lopez (Skip Barber Racing School)

Porsche High Performance Driving Handbook by Vic Elford

Speed Secrets - Professional Race Drive Techniques by Ross Bentley

www.rennlist.com - A premier Internet resource for the Porsche enthusiast

www.pca.org - The Porsche Club of America site. It has useful links to many things

www.pelicanparts.com - The Pelican Parts technical forums are another great resource

Passing Zones and Signals

PASSING IS ONLY ALLOWED IN DESIGNATED AREAS AND WITH PROPER SIGNALS. At the drivers meeting you will be informed where the passing zones are for each of the run groups. Do not pass unless the car being overtaken signals you to pass. Do not tailgate. This applies equally in all run groups. The signals are as follows:



"Overtake me on the left" - point your left arm straight out of the window



"Overtake me on the right" - point your left arm over the roof of the car

Generally, the car doing the overtaking must move off the 'line' with the passed car maintaining the driving line. Do not feel pressured into giving a passing signal when you are not ready – e.g. after a turn, make sure you track out correctly before giving a passing signal. Each of these signals indicates to a *single* car behind you that they may overtake. If there are more cars behind, wait until the first car is starting its overtaking maneuver, then give the same signal for each subsequent car. . Do not "drag race" the passing car to the end of the passing zone. Maintain your speed or lift slightly to allow the passing car to safely complete the pass.

If the car in front of you signals you to overtake, it is your decision as to whether to take the opportunity. You are not obliged to pass and you should not pass if you feel at all uncomfortable - for example, you may be nearing the end of the passing zone on the straightaway. Make sure you have plenty of time, distance and horsepower to complete the pass. Always be aware of traffic behind you as well as traffic in front of you. Whether you are holding up traffic or being held in traffic, you can always enter the pits and rejoin at a less crowded position on the track. **DISREGARD OF OUR PASSING RULES WILL RESULT IN YOUR EXPULSION FROM OUR EVENT.**

End Of Run



At the end of your run you will see the checkered flag. Slow down (but not to a crawl) and use your brakes as little as possible to allow them to cool during the remainder of the 'cool-down' lap. Keep your concentration up, even on the cool-down lap and continue to drive the correct line. Approaching the pit in turn-off clench your fist and hold your left arm straight up, out of the left window to indicate you are pitting. Use this signal if you need to pit-in during a run as well.

Drive back to your parking spot, still trying to use the brakes as little as possible. The rotors will be very hot and you want to avoid transferring this heat to the brake fluid in the calipers. When you stop and switch off the engine leave the car in gear to prevent it moving. **DO NOT** engage the parking brake. Your instructor will often want to sit with you for a couple of minutes to discuss the run.

Advancement in Run Group

Our instructors are provided with information on both you and your car. Along with instructing you in the proper line around the track and evaluating your driving skills, your instructor is also evaluating your courtesy to other drivers and your judgment. Your good judgment and experience are the only things that will advance you in our schools. Good judgment includes everything from knowing when to pass, to knowing when to let other cars pass you. It includes knowing when to brake for turns or when to get back on the gas. Good judgment means you don't need someone sitting in your passenger seat telling you every move to make. Good judgment only comes from a lot of seat time. Be patient, listen to what your instructor has to say, take a ride with your instructor. Learn to be aware of everything that is going on with your car, the other drivers and track personnel. Concentrate on being smooth. Do these things and the speed will come.

Chapter 9 : Check Conditions – You And Your Car

The following sections are an accumulation of distilled knowledge that didn't belong in prior sections. They are however, valuable tidbits that may prove useful to you at some stage in your DE career.

Your Well-Being

Always take account of the weather: The tips below may sound like common sense, but are important. People have been known to collapse from heat exhaustion and unfortunately, your judgment is one of the first faculties to suffer through dehydration.

- Apply sunscreen liberally and often BEFORE you get sunburned
- Wear a hat while in the paddock
- Dehydration leads to deterioration in judgment, concentration and mental performance
- Remember to keep drinking liquids, even when you don't actually feel thirsty. By the time you feel thirsty your body is already dehydrated. This cannot be stressed enough. Depending on the temperature and the sunshine you should be drinking 16 – 32 ounces of cool fluids each hour even if you're not thirsty; thirst is NOT an accurate indication of dehydration.
- Be alert and if you notice any of the following symptoms of heat exhaustion pull off the track and let someone know: Dizziness, Headache, Heavy sweating, Muscle cramps, Nausea or Weakness.

Condition Of Your Car

After a run it is wise to check your car in preparation for your next outing.

- Tire wear - Check your tires after every session for nicks, punctures, or worn areas. If in doubt, show the area to your instructor. Tires should be no more than five (5) years old. They become hard and the rubber cracks when the tires heat up. This causes the tires to lose grip easily.
- Tire pressure - Check tire pressure before each session. Tires typically increase more than 5 PSI during track sessions so if your tires have increased pressure this is normal.
- Oil level and temperature - Check the oil level every couple of sessions and add oil if needed. Get in the habit of checking the oil gauge on the track and monitoring oil temperature.
- Coolant level and temperature - As with oil, monitor your coolant temperature regularly while on the track. If you get a reading in the red zone or no reading (too little coolant), you should end your session early and let things cool down. The "Water Wetter" product is popular with frequent track goers in the South. It can reduce your coolant temperature by 10 degrees or more and may be worth considering if you notice your coolant temps getting too close to the red zone. Regardless, be sure to monitor coolant levels in case you lose coolant via the overflow.
- Fuel level – You'll be surprised at how quickly you will go through gas. If you're not sure whether you have enough to make it through an entire session, get more gas. You don't want to take up everybody's track time getting towed off the track. There are gas pumps on site with regular and race fuel (but it will be on the pricey side so plan ahead). You must have a credit card with US billing address to use their pumps.
- Brakes - Track driving takes its toll on the brakes. You may have an indicator light that warns you when the brake pads are getting thin, but if your car doesn't have one, you should learn to examine the brake pads yourself. Ask someone to help – they'll be only too willing to show you how. While driving, if ever the brake pedal starts to feel soft or spongy, come into the pits immediately. A soft brake pedal happens shortly before the pedal goes straight to the floor without any resistance - not a fun experience. This happens when your brake fluid boils and can be easily rectified by "bleeding" your brakes. This is a simple process - again, ask someone for help if you need to do this.
- Lug nut torque – get into the habit of checking every couple of sessions. The

expansion/contraction heat cycling can cause the nuts to work loose. If you don't have a torque wrench, borrowing one is a great way to meet your fellow drivers. Just make sure you return it when you're finished! Most early Porsches have light, aluminum alloy lug nuts. Along with the wheel, these lug nuts will get hot during your run. Do not try to torque or remove them when hot. If you do, and you use a soft-socket-with-a-plastic insert (to prevent damage) the plastic may turn to a gooey mess. If you use a regular steel socket it is easy to break the neck of the lug nut from the collar. Wait for the lug nuts and wheel to cool, or alternatively use open, steel lug nuts. Although later Porsches like the 996, 997 and Boxster utilize steel lug bolts, it's still advisable to allow the wheels to cool somewhat before attempting to remove them while very hot.

- Keys in car - Leaving your car keys in the car while you are away from it is a personal choice, but bear in mind that in the event of a sudden summer thundershower while you are away from the car, a helpful colleague may be able to get your windows and sunroof closed and save your interior from a drenching.

Chapter 10 : Safety And Performance Modifications

The following topics are not a concern or a requirement for the beginning driver. Once you have several events under your belt you may want to consider some of the changes mentioned below. The paragraphs below are placed in no particular order.

Harness, Seat and Roll Bar/Cage

These three topics are all covered together because current thinking considers them all as part of a single safety system. The PCA mandates that a harness may not be used without seats designed to accommodate them, and if you do have an appropriate seat and harness, a roll bar or roll cage is recommended to complete the safety system.

Once you have done a few events and your cornering speeds increase, you may find yourself bracing yourself against parts of the car. The stock seat belts are good, but cornering and braking from high speed ideally calls for a harness to keep you firmly in your seat. Most popular nowadays are 5- or 6-point harnesses. A 4-point harness is not safe and is not permitted by PCA. If installing a harness, you must install it for the passenger too. Most regions require the same restraint system for both occupants.

PCA requires that all cars equipped with a 5 or 6-point safety harness must have appropriate race seats. You may not use a 5 or 6 point harness with stock factory seats, nor are 3 pt OEM belts allowed with race seats. A specially designed racing seat must be installed along with harnesses. These generally provide more support when cornering and may be lighter, saving some weight compared to the stock seats. However, they may not be so comfortable for those long drives on the street. Other drivers will be happy to discuss their choice of seat with you and allow you to see how you fit in their car.

The likelihood of a rollover accident is very small but it can happen. If you have installed seats and harnesses, you will be firmly strapped in your seat and may find it difficult to bend out of the way of the roof. While the roof pillars on your Porsche are very strong, a roll bar or roll cage may be installed for extra safety. A roll bar is typically a steel hoop bolted or welded to the body and extending above (and behind) the driver. These are often welded in place, although some models are "bolt-in" and can be removed if, for example, the car is sold. A roll cage extends the roll bar along the roofline, down the windscreen pillars and usually anchoring on the front door sills. Roll cages are primarily intended for dedicated race cars and are not generally used in street cars because of the difficulty of getting in and out of the car and the fact that unless strapped in with the racing harness, there is the chance of hitting the steel tubing in the event of a street accident.

Tires

Good quality street tires are entirely adequate during your first several events. Without any track experience, you won't be using *any* tires to their performance limits. Learning the feel of your car through street tires aids learning and will teach you how the car feels and behaves as you approach the limits of adhesion. Also, starting out with your car in stock configuration will give you a baseline for comparison so that once you get some track experience you will be better able to judge the impact of a tire upgrade on your performance. Any of the Z-rated street tires give you very good performance on the track and it works out less expensive because they wear so much less than track tires. (You won't go through a set of street tires in a track weekend).

As you become more experienced, you may want to try tires with higher performance (more grip). If your car is also used on the street you have a few choices; you can fit high performance street tires, you can fit R-compound track tires that are street legal (but which wear more quickly than street tires), or you could get a second set of rims and fit dedicated track tires (slicks). As you attend more DE events ask plenty of questions and make your own decisions.

Brake Pads

Stock Porsche brake pads work well on the street but for most early cars they are not optimized for the heavy braking you will be doing at the track. After several events, as your speed increases, you may find that you want to try a pad more suited to the track. However, the brakes on late models such as the 996, 997 and Boxster have brakes that are generally adequate for your first season of DE events. Several upgrade options are available - from out-and-out race pads to ones suitable for mixed track/street driving. In general, track pads need to be hotter to get maximum braking effect, which is why they may not be completely effective on the street on a cold winter morning. They will also tend to be tougher on the rotors than stock brake pads. Changing pads is such a simple job it is practical to have one set for street and a second set for the track.

Brake Fluid

Brake fluid is a hydraulic fluid used to transfer pressure on the brake pedal into the clamping action of the brake pads onto the rotors. Driving at the track causes brakes to get very hot. Some of the heat is dissipated by the large metal mass of rotors, some is dissipated by the airflow over the rotors, but some heat is transferred through the brake pads to the calipers and the brake fluid in the calipers. Unfortunately, brake fluid absorbs water from the atmosphere (in technical terms it is "hygroscopic") and the longer it has been in your brake system, the more water it will have absorbed. Brake fluid has a very high boiling point (often over 400 ° F) but water does not. If the heat transferred to the fluid causes any water in the fluid to boil, steam is generated and air bubbles form in the brake fluid. Brake fluid is not compressible (that's why it's used) but air bubbles are. The end result is that the brake pedal will start to get "soft" and will eventually go to the floor with no braking power at all. If ever you feel your brake pedal going soft, slow down, pump the pedal a few times to get full braking effect back and pull in at the pits as soon as possible. Also, remember brake fluid does not circulate. The condition of the fluid in the reservoir does not indicate the condition of the fluid in the calipers. If you become a DE regular, change your brake fluid for each event and use a high-quality, high-boiling point brake fluid.

Brake Rotors

A word of warning about aftermarket cross-drilled rotors: They may look good, but the process of drilling the holes inevitably leads to increased areas of stress and to cracks, radiating from the holes. If not monitored very closely these cracks can, within a few track sessions, radiate through the rotor and become potentially dangerous, leading to a rotor failure. Note that Porsche factory rotors are cast with the holes, rather than drilled and this is much, much better at resisting cracks. The original reason for drilling rotors was that compounds in early brake pads would 'out-gas', forming a boundary layer of gas between the pads and rotors and making for poor braking. The holes allow the gas to escape and restore braking performance. Modern pad compounds rarely experience this so the utility of drilled rotors is nowadays limited to marginal extra performance in very wet conditions when water can form a boundary layer. Compared to the risks of a broken rotor when used on the track, consider carefully the choice of aftermarket cross-drilled rotors.

Driving Suit, gloves and shoes

It's personal preference. Purpose designed and made for performance driving shoes are available from many companies and in many styles. Although they may still be worn around the paddock, they provide excellent 'feel' through the soles. Driving gloves serve mainly to allow you to keep a good grip on the wheel. Good gloves, typically with leather on the palm and fingers, give you a good feel on the steering wheel while also absorbing the sweat from your hands. Choose a contrasting color to your car to help other drivers see your passing signals. Primarily of utility to those drivers taking part in Porsche Club Racing, a good quality driving suit can provide several seconds of protection to the driver in the very unlikely event of a fire inside the car. Think of it as extra insurance! The more expensive suits are made from an inherently fire-resistant material, (Nomex, Kevlar, PBI), while cheaper ones are made from treated cotton fabric (Proban, Fireware). Generally speaking, the more layers of material, the greater protection is offered, but the hotter you will be when wearing it.

Besides the fire-resistance of the material itself, the air gap between the layers is also important. If you go down this route, remember that the driving suit is just one item used for total body protection. The other items include: helmet, head sock (balaclava), helmet skirt, HANS device, gloves, underwear, socks, and shoes. All these items must work together to achieve total protection. If any one part is inadequate or fails, it will undermine the effectiveness of the whole.

Head and Neck Support device (HANS)

You may see some drivers wearing an odd shaped contraption attached to their helmets and extending down over their shoulders. This is a 'HANS' device, designed to stop the head from whipping forward in a crash. Mandated by many race series, these safety devices are now within the budgetary reach of DE enthusiasts. With the high performance now available from modern Porsches, drivers who make a commitment to DE would be advised to consider a HANS device. HANS devices are not effective with OEM seats and belts.

Chapter 11 : Flag Descriptions - READ. . . UNDERSTAND. . . AND MEMORIZE

If you are viewing this on a screen or have a color printer the flags below are shown in color. If you have a black and white printer you will need to use your imagination.



A GREEN flag indicates a clear track and you can proceed at speed.



A CHECKERED flag indicates that the session has ended. During the Driver's meeting you will be advised as to where it will be displayed – it is not always at the start/finish line. Once you pass it, finish the lap at cool-down speed, then pull into the pits, giving the pit-in signal. Do not pass after the checkered flag.



A YELLOW flag indicates that there is an incident ahead and that you should slow down and use caution. DO NOT jam on the brakes. STANDING YELLOW: There is a problem on the track ahead requiring your attention, such as a car off the road, an animal on the track, etc. NO PASSING. WAVING YELLOW: There is a problem in the immediate vicinity. Proceed with EXTREME CAUTION and be prepared to stop. NO PASSING. The first lap of all sessions is also run under the YELLOW flag.



A BLACK flag is a signal to pull into the Pits. It may be used to bring all cars in or it may be used to signal an individual driver. In either case, pull into the pits, giving the pit signal. When used to warn a particular driver, the flagger on the Start/Finish line or at the Black Flag Station will point the Black Flag at the car as it passes the station. The driver should acknowledge the Black Flag with a hand signal and proceed with caution, to the pits where they will report to the Pit Marshal. The Black Flag may indicate either mechanical trouble or incorrect driving behavior. When used to bring all cars to the pits, it will be displayed in the standing position at the Start/Finish line and at the Black Flag Station or possibly all stations. All cars will proceed at a reduced speed to the pits and follow the instructions of the Pit Marshal.



A RED flag is an indication of a serious problem on the track and that the run group is ended immediately. Come to a controlled, safe stop off line on the edge of the track, leaving a path for emergency vehicles. Remember to check your mirrors before breaking to a stop; be sure the person behind you has seen the flag and if at all possible try to stop within sight of a flag station. Remain in your car with your helmet and restraints in place and await instructions from a flag marshal. The red flag will be dropped and replaced with either a BLACK or YELLOW flag. If BLACK, all cars will proceed at a reduced speed to the pits. If YELLOW, all cars may proceed at a reduced speed with no overtaking until given the GREEN flag.



A YELLOW/RED STRIPED flag indicates a slippery or hazardous track. There is something on the track causing a slippery condition. It may be oil, water, debris, dirt, etc. Drive with caution. Remember, once you have seen this flag, the track is likely to remain slippery at this place on future laps - even if the flag is no longer displayed.



The WHITE flag means that there is a slow-moving or EMERGENCY vehicle on the track ahead of you. Treat this flag as a yellow flag. NO PASSING. Reduce speed and proceed with caution.



The BLUE or BLUE with a YELLOW STRIPE flag means that the flaggers have noticed a faster car behind you. Check your rear view mirror. Allow them to pass at the next passing zone by giving the appropriate signal.

Chapter 12 : Driving Directions and Local Hotels

For CMP

Driving Directions

- From Charlotte: Take I-77 to I-485 to Johnson Rd (US 521) South to Lancaster, SC
Stay on 521 thru Heath Springs and then Kershaw
CMP is 4 miles South of Kershaw on US 521
- From Columbia: Take I-20 East towards Florence
Take Exist 98 to Camden and follow US 521 North

Local Hotels

- Colony Inn at 2020 West Dekalb Street, Camden, SC 803.424.0206
- Quality Inn at 850 Hwy 1 South, Luggoff, SC 800.551.2409

For VIR

Driving Directions

- From Roanoke: Take US 220 South towards Martinsville approx. 50 miles
Exist onto US 58 East to Danville, VA and continue thru Danville approx. 40 miles
Turn right onto VA 62 South to Milton, NC thru the traffic light and onto NC 57 South
Continue .5 miles and turn left onto Racetrack Road. VIR is 1 mile on the left
- From Richmond: Take Rt 360 South from Richmond to South Boston
Take US 58 West at South Boston
Take Rt 119 South at Turbeville and follow signs to VIR
Turn right on Sunset Road which becomes Racetrack Road. VIR is 1 mile on the left
- From Raleigh: Take US 70 Bypass West to I-85 South
Turn right onto US 501 Bypass North which becomes US 501 to Roxboro approx 27 miles
Turn left onto Court St in Roxboro
Turn right onto NC 57 approx 17 miles
Turn right onto Racetrack Road. VIR is 1 mile on the left
- From Greensboro: Take US 29 North approx 45 miles
Turn onto Danville Expressway (US 58/29 Bypass) East towards South Boston
Exit at 58 East towards South Boston and follow for 5 miles
Turn right onto VA 62 South to Milton, NC thru the traffic light and onto NC 57 South
Continue .5 miles and turn left onto Racetrack Road. VIR is 1 mile on the left

Local Hotels

- The Lodge at VIR at 1345 Pine Tree Road, Alton, VA 434.822.2680
- The Sleep Inn & Suites at 1483 South Boston Road, Danville, VA 434.793.6090