

Day of Event Information

High Performance Driver's Education Course at NHIS

Thursday, May 24th, 2007

Boston Chapter BMW Car Club of America, Inc.

SPONSORED BY



WELCOME to another Boston Chapter BMW CCA High Performance Drivers' Education Course at NHIS, our home track, on Thursday, May, 24th! Please study the enclosed information packet to allow you to derive the most benefit from the school. This packet contains information on flagging, vehicle preparation, and clothing. In addition, it reiterates some but not all the information provided with the ENTRY FORM. You have affirmed on the ENTRY FORM that you are over 18 years of age and that you hold a valid driver's license. You may be required to show your driver's license at registration. At registration you will be required to sign waivers from the National car club and Boston chapter. Copies of the chapter waiver and the National waiver are appended to the end of this document for your review prior to the event. All participants and guests must sign these waivers. We recommend that you review these waivers with your spouse or significant other before coming to the track.

PLEASE READ THIS IMPORTANT NOTIFICATION!!!

Due to changes in Massachusetts' insurance regulations, it is possible that drivers may not be covered by their insurance company while on the track, even though this is not a speed event. Should this possibility make you uncertain about attending this event you may cancel your participation, provided you notify the registrar by May 17th. All tracks hold the Chapter responsible for damages to the track surface, guardrail, or other track property. Should you have an incident and cause such damage, where the Chapter receives a bill from the track, you agree to reimburse the Chapter in full for such expenses.

THIS IS NOT A RACING DRIVER'S SCHOOL. It is a high performance driving school, conducted on a racetrack under close supervision by experienced instructors. The Chief Instructor has approved these instructors. If you wish to bring someone to the track to instruct you, the Chief Instructor must approve that person. In no event will race instructors be allowed. With the guidance of your instructor, you will learn the cornering and braking capabilities of your vehicle. This will help prepare you for emergencies. You will have an opportunity to explore your own capabilities and those of your vehicle. At no time will you be pushed or encouraged to go any faster than is comfortable for you. If you have any condition or limitation which we may be better able to accommodate by advanced planning, please contact us as soon as possible so that we may be better prepared to help make your experience educational, safe and fun. The Driver's school chairman reserves the right to expel any individual from the event at any time and for any reason. This is a driver's education school and is not practice for any racing or speed contest. Student's who are signed off to solo will be required to have an instructor with them for at least one run period.

DIRECTIONS TO NHIS: New Hampshire International Speedway is located on Rt. 106 in Loudon, NH, approximately 15 miles northeast of Concord, NH. In Concord, take either Exit 14 or 15E off I-93. From Exit 14, take Rt. 9 east five miles to Rt. 106 North. This secondary highway has a number of gas stations (including CAM2 at a Gulf station), fast food restaurants, and convenience stores. Gas may be available at limited times in the paddock, but this will only be high octane racing gas at >\$4.00/gal. From Exit 15, take I-393 east to Rt. 106 North. Rt. 9 and I-393 meet at Rt. 106. Travel on Rt. 106

North for approximately 10 miles. From I-95 or New England coastal areas, take Rt. US 4 or US 202 west to Rt. 106 North.

SCHEDULE:	7:00 AM	Track opens	7:00 – 7:30	Registration
	7:30 - 8:15	Tech Inspection	8:30- 8:45	Drivers' Meeting

PLEASE NOTE that the above schedule is VERY TIGHT, and must be adhered to very closely to allow everyone his or her full share of driving time. It is ESSENTIAL that each participant arrive at the track by 7:00 AM to allow all of the pre-driving activities (Registration, Tech Inspection, Driver's Meeting) to be completed in time for the first car to be on the track at 9:00 AM. Drivers who do not register by 7:30 are subject to losing their spot. If this happens, the late driver forfeits all fees and will not get a refund. Each run group will have four driving sessions scheduled between 9:00 AM and 5:00 PM. Participants who do not meet their responsibilities with respect to arrival time, presenting their vehicles for Tech Inspection, prompt attendance at the Driver's Meeting and ground school sessions WILL FORFEIT DRIVING TIME AND MAY BE EXPELLED.

Upon turning off Rt. 106 at NHIS:

*Park your car along the fence on the right side of the entrance area, go to the registration booth to pick up your registration packet and sign the BMW CCA and NHIS waivers (have your driver's license ready). All participants and guests must sign these waivers. The registration packet will include: Event Schedule, Run Group, Classroom Schedule, and three sets of the coded Run Group numbers to be attached to the outsides of both rear side windows of your car, as well as the top, drivers' side rear window. Before attaching the numbers please clean the surface of the window or car first. Make sure that all edges of the numbers are sealed to the glass and as many of the bubbles are removed under the numbers – this will help them stay on the car.

*Stop at the last window of the registration building and sign the track waiver. This is separate from the chapter's waiver.

*Drive your car to the track entrance. Stop to have the NHIS worker check your hand stamp (indicating that you have signed the NHIS waivers).

*Drive through the tunnel at the south end of the oval and continue to the center (new) garage area. Locate a parking place on the paved area around the two garage buildings.

* Empty your vehicle of all loose items (glove box contents, map pocket contents, radar detectors, garage door openers, little dogs with bobbing heads, floor mats, trunk mat, jack and lug wrench), attach your Run Group Numbers, and fill up the tires (over inflate and then bleed down). Remove wheel trim rings and cosmetic center caps. **Torque lug bolts to specification.**

*Slide your Pre-Event Safety Inspection Report under your windshield wiper (on the dash if it's raining), and drive your vehicle to the Tech Line on Pit Lane. Leave the keys in your vehicle while it is in the Tech Line. **IF YOUR VEHICLE HAS NOT BEEN PRESENTED FOR INSPECTION IN THE TECH LINE BY 8:15 AM, YOU WILL MISS YOUR FIRST RUN GROUP SESSION!**

*Report to the Driver's Meeting to be held on the side of the garage by the Pit Road at 8:30 AM. The event's procedures will be discussed and any questions that you have will be answered at this meeting.

*Report to the Media Center for the Ground School and follow-up classroom sessions during the day.

* NOTE: no one under 18 years of age may enter the Pit Road or be on the track.

*Participants may be required to have instructors with them throughout the day. All run groups will have four (4) 20-25 minute sessions on the track during the school. The checkered flag ending the Run Group will be displayed at the flag station on the pit straight. Since NHIS has some corners that will require very heavy braking, this cool-down lap should be driven slowly enough to avoid using the brakes (i.e. 25-30 mph). You and your instructor should use this lap to discuss your driving during the session. A slow cool-down lap will also allow the engine's and your temperature to return to normal. The hand/parking brake should not be engaged after parking in the paddock.

FLAGGING: The safety of any high performance event depends upon the proper use of signal flags. These signal flags are intended to keep drivers on the track advised of conditions ahead of them. Drivers must be made aware of dangers before encountering them. In order to make the Driver's School safe for you and other drivers, we have established the following flagging procedures. The flags we will be using are: YELLOW, RED, BLACK, CHECKERED, WHITE, BLACK w/ ORANGE CIRCLE, ORANGE and YELLOW STRIPES and BLUE. Supplemental information about the use of these flags will be provided at the Driver's Meeting, but it is essential that each participant read and understand the information herein before arriving at the track. Competent flagging is the cornerstone of a safe event.

The **YELLOW FLAG** indicates trouble on the course. This flag will be displayed in response to on-track incidents or conditions that threaten the safety of the event. NO PASSING is allowed and a reduced rate of speed is required in the area in which the yellow flag is displayed. A waving YELLOW FLAG indicates immediate danger. BE PREPARED TO STOP. The YELLOW FLAG is the first response by corner workers to any incident.

The **RED FLAG** is displayed in a waving fashion and indicates serious trouble on the course. It is displayed only when an

on-track incident or condition requires that the event be stopped. It is only displayed at the direction of Control and will be displayed at all flag stations simultaneously. ALL CARS MUST STOP AS QUICKLY AND AS SAFELY AS POSSIBLE and within sight of a flag station when a RED FLAG is displayed.

The **BLACK FLAG** is used as a warning to a particular driver. Upon direction from Control, the flag will be pointed at the car being BLACK FLAGGED. The driver so warned should acknowledge the black flag with a hand signal, proceed to Pit Road and report directly to Control. The BLACK FLAG may indicate either mechanical trouble or that incorrect driving procedure has been observed. Extremely careless or unsafe behavior, or failure to respond to a BLACK FLAG, may result in ejection from the event. Flag stations are requested to report all safety problems to Control.

The **CHECKERED FLAG** will be displayed at the Pit Out flag station (at the end of the pit straight) at the conclusion of the Run Group track session. After receiving the CHECKERED FLAG you will see a standing YELLOW FLAG at every flag station you reach. Do not pass other vehicles and do not try to squeeze in an extra lap. When observing the CHECKERED FLAG, proceed around the track at reduced speed. Since WGI has some corners that will require very heavy braking, this cool-down lap should be driven slowly enough to avoid using the brakes (i.e., 25-30 mph). This lap is your opportunity to discuss your driving with your instructor; your debriefing should be completed by the time you reach the Pit Road. Enter the Pit Road, drive to the entrance to the paddock and drop off your instructor. It is VERY important to the timely running of the event that you drop off your instructor WITHOUT DELAY. REMEMBER THAT THE SPEED LIMIT ON THE PIT ROAD AND IN THE PADDOCK IS 5 MPH. If your vehicle is being driven in the next Run Group track session by a co-driver, stop your car at the end of the line of cars forming the next Run Group session. Carry out driver and instructor changes at that time.

The **BLUE FLAG with Diagonal Yellow Stripe** will be directed at drivers to let them know that there is a car behind them that should be allowed to pass. This flag informs you that you should begin to execute a safe passing maneuver, including appropriate point-by, at the next safe opportunity in a designated passing zone. When you do point-by, do so clearly, with a distinct indication for each individual vehicle you want to let pass. Stay on line and lift to help faster vehicles pass safely.

The **WHITE FLAG** lets you know that there's a slow moving vehicle on the track. It may be a participant's car driving slowly, or an ambulance or tow vehicle. If you see a slow moving vehicle after the white flag do not assume that the track is clear after passing that vehicle. It is possible that there is more than one slow moving vehicle and you must be cautious until you are sure the track is clear.

The **BLACK with ORANGE CIRCLE FLAG**, also known as the **MEATBALL FLAG**, is never waived, but is always pointed at a car. It means that the track personnel can see that there's something wrong with the car and the driver needs to pull into the pits immediately. If the meatball flag is directed at you, pull off line as soon as safety allows. You may be dropping a long stream of oil and getting off the driving line will make things better for everyone.

The **ORANGE and YELLOW STRIPED FLAG**, also known as the **DEBRIS FLAG**, is waived to indicate that there is debris on the track. It may be obvious, such as a piece of a car that has fallen off, or difficult to see, such as antifreeze. **SLOW DOWN** and make sure you understand what is on the track surface. The debris flag is only shown for two laps. That's so you will know that, if shown again at the same corner, some additional material is on the track

RUN GROUP ASSIGNMENTS: This school is being run in conjunction with a Club Racing School. Because of the Club Racing School the run groups will be a little different than a typical Driver's School. There will be three (3) student Run Groups and one (1) instructor Run Group. Participants will be placed in Run Groups based on their experience level. Participants in co-driver cars will be placed in Run Groups as appropriately as possible. The registration packet you will receive when you register at the track will include the Run Group/Classroom Schedule.

Classroom attendance is mandatory for all students. The classroom instructor will take attendance at the classroom sessions. Also, every student is required to drive with an instructor for at least one session each day even if you have been signed off to drive solo.

EQUIPMENT AND CLOTHING:

***HELMET: Snell 2000** or newer. It is your responsibility to make arrangements to have a **Snell 2000** or later helmet at the event. The Boston Chapter is not providing loaners. If you do not have an approved helmet, you will NOT be allowed to drive on the track.

***CLOTHING:** The event will be run rain or shine; COME PREPARED TO PARTICIPATE IN POURING RAIN. Shoes must be lace type and must be worn with socks. Long pants and long-sleeved shirts are mandatory. No nylon clothing is allowed. This also applies to anyone in the pit area.

***WINDOWS and SUNROOFS:** The driver's side window must always be completely down when on the track. If there is an instructor in the car the passenger's side window must also be open. If there is no instructor in the car the passenger's side window may be either completely opened or closed, but not partially open. Sunroofs must be completely closed at all times.

***ACTIVE RESTRAINT REQUIREMENTS:** Seat belts (same type for both driver and passenger) must be securely anchored to the floor and/or stock mountings. **If your vehicle is equipped with racing harness/belts both driver and**

passenger harness/belts must be within the valid SFI or FIA dating. SFI dating is 2 years from date of manufacture and FIA indicates the year of expiration. Stock and "Schroth type" Street Legal belts must be installed according to manufacturer's specifications without modification and must NOT be faded, frayed, damaged, or significantly worn.

<u>Type</u>	<u>Description</u>
Minimum	=3-point factory
4-point fixed (Type 1)	=DOT spec 2" lap with 2" shoulder (Schroth type)
4-point fixed (Type 2)	=FIA spec with 2" or 3" lap with shoulder (both considered equivalent)
5-point/6-point fixed	=SFI/FIA Spec 2" or 3" lap belt with 3" shoulder and 1 or 2 point anti-sub belt (all combinations equivalent) <u>NOT TO BE INSTALLED IN FACTORY SEATS.</u>

It is the intent of the active restraint requirement that restraint systems should be matched by upgrading, NOT by downgrading. Existing restraint systems should not be left unused to meet the standard. For example, a driver's side factory 3-point belt cannot be used instead of an existing 5-point system to meet the requirement when carrying a passenger; instead, the passenger's side system should be upgraded to a 5-point system.

***CONVERTIBLES:** Convertibles will be permitted to participate in the following configurations:

1. Closed - Convertibles with either fixed or active factory roll bars must be driven with the factory hard top installed. Three point factory safety harnesses for both driver and passenger are acceptable.
2. Open/No Hard Top - Convertibles with an approved, fixed aftermarket roll bar with minimum four-point safety harnesses, where the shoulder belts are properly routed for both driver and passenger. Three point lap belts are not acceptable. Both driver and passenger sitting upright with helmets must be below the top of the roll bar or you will not be allowed on the track.

All convertibles must be approved by the Event Chair in advance. Please contact the registrar before the event to discuss your configuration. If the vehicle does not pass the on-site Tech Inspection with regard to the rules above, you will not be allowed to participate and no refund will be given. If you have an open convertible with a roll bar and we are not able to find an instructor who is willing to accompany you on the track, your entry fee will be refunded.

QUESTIONS ABOUT THE SCHOOL OR REGISTRATION? Contact

Larry Barbieri at Larry_Barbieri@boston-bmwcca.org

ATTENTION!! E30 & E36 M3 OWNERS!!

Special Caution Regarding Ball Joint Failures in E30 and E36 M3 Vehicles

A pattern that indicates E30 M3 ball joints are at high risk to fail under load has been emerging. There have been several instances where a total loss of the vehicle has occurred, one involving a minor injury to the driver. This failure appears to be pronounced in cars with significant mileage and/or use on the race track with performance tires, e.g., Hoosier, Yokohama A032R, etc. Until more information becomes available, the following should be given serious consideration before subjecting your car to the g forces achievable on the racetrack:

1. As part of your required Tech Inspection, the car should be put on a lift, and thoroughly inspected by a qualified mechanic with careful attention given to the integrity of the ball joints and corresponding subframe mounting sockets. While on the lift, ball joints should also be inspected for free play; worn ball joints should be replaced immediately. **Note:** The lack of obvious signs of wear does not necessarily indicate integrity of the ball joint. It will not reveal insidious cracks that can only be seen by sophisticated nondestructive testing, e.g., x-ray or magneflux.
2. In at least one instance, it was reported that there were no prior visible signs of wear on a ball joint that subsequently failed at speed.
3. Any E30 M3 driven 20 or more “dry” track days on performance tires should have the lower control arms replaced.
4. Cars driven with street tires are probably at significantly lower risk of early ball joint failure due to lower maximum sustainable g forces. Likewise, cars driven by inexperienced drivers on performance tires are at lower risk.
5. Both the inner and outer ball joints are suspect to fail.
6. It appears that the E36 M3 also uses a ball joint with the same physical dimensions and these cars may also be at risk.
7. Until more quantitative information is known, E36 M3 owners should follow the same maintenance recommendation in Item 3

OPTIONAL MEDICAL INFORMATION FORM

BMW CCA High Performance Driver's School at NHIS
May 24th, 2007

Completion of this Form is at the *option* of the Applicant. Complete this form if you would like rescue personnel at the racetrack to have your medical information readily available should you incur personal injuries or suffer from an illness while participating in the event. If you opt to complete this Form, you must strictly follow the instructions below and your envelope will be delivered to the rescue personnel before driving begins. After conclusion of the event, your envelope and its contents will be shredded.

- INSTRUCTIONS:**
1. Form must be submitted at the Registration Booth prior to commencement of the event; and,
 2. Form must be submitted in a **sealed envelope** with your name printed clearly on the front.

NAME: _____

ADDRESS: _____

PHONE: _____ (home) _____ (work) DATE OF BIRTH: _____

Medical Information

Your Personal Physician(s) _____

Physician's Phone: _____

Blood Type: _____

Medications Now Using: _____

Ailment(s) Medication is for: _____

Allergies to EMERGENCY Medications: _____

In case of emergency, contact: _____ Will this person be at the track? _____
(Name)

(Address)

(Telephone) (Relationship to you)

Other Medical Information:

I hereby certify that the above information is true and accurate. Also, I hereby grant permission to my physician(s) and any hospital or institution who has treated me to furnish my medical information to rescue personnel and/or other physicians or hospitals providing medical treatment to me as a result of an incident in the driving event referenced above.

Date: _____ Signature: _____

If you are submitting this optional form at registration, please place it in a sealed business sized envelope and print your name clearly on the outside.

STUDENTS – Boston Chapter Waiver

Please read this waiver before coming to the track. You will be required to sign this waiver prior to your participation in the school. If you are not in agreement with the terms of the waiver, please contact the registrar prior to May 17th for a refund

May 24th, 2007

Chapter and Helmet Acknowledgment and Release

I/We acknowledge that the inspection of my helmet by members of the **Boston Chapter, BMW Car Club of America, Inc.** is for the sole purpose of determining whether my helmet has met the **minimum** standards of the Snell Memorial Foundation and that it appears from a visual inspection to contain the appropriate Snell rating sticker and to be capable of meeting those standards at the present time. **I acknowledge that the Club is making no guarantee of fitness for use in "passing" my helmet, and that I am relying solely on my own judgment in using the helmet in a Club event.** I release, acquit and forever discharge the BMW Car Club of America, Inc., its officers, members, employees, lessors, associates, successors, or assigns, from any and all liability, claims, demands or causes which may arise from my wearing of the inspected helmet, from **my** attendance at a Club event, or from any injury sustained by me, whether or not due to their negligence.

I represent that I am over the age of 18 years (or if between 16 and 18, I have signed a minor release waiver), that I understand that I am participating in a dangerous event, and that my helmet has not previously been worn in a collision or struck by a hard object.

I agree, as a condition of my participation in this Boston chapter BMW CCA driving school, that I will be fully responsible for my vehicle at all times. I for myself, my heirs, executors and assigns, release Boston chapter BMW CCA, their assignees, officers, agents and successors from any and every claim, demand, action of whatever kind or nature, and any cost, loss or expense I may incur participating in or in any way connected with the Boston chapter BMW CCA driving school event. I further confirm that I am a fully licensed driver over the age of 18.

STUDENTS – BMW CCA Waiver

Please read this waiver before coming to the track. You will be required to sign this waiver prior to your participation in the school. If you are not in agreement with the terms of the waiver, please contact the registrar prior to September 14th for a refund

IN CONSIDERATION of being permitted to compete, officiate, observe, work for or participate in any way in the EVENT(S) or being permitted to enter for any purpose any RESTRICTED AREA (defined as any restricted area requiring special authorization, credentials, or permission to enter or any area which admission by the general public is restricted or prohibited including but not limited to the competition area and any hot pit area), EACH OF THE UNDERSIGNED, for himself, his personal representatives, heirs and next of kin:

1. Acknowledges, agrees, and represents that he has or will immediately upon entering any of such RESTRICTED AREAS, and will continuously thereafter, inspect the RESTRICTED AREAS which he enters and he further agrees and warrants that, if at any time, he is in or about the RESTRICTED AREAS and he feels anything to be unsafe, he will immediately advise the officials of such and will leave the RESTRICTED AREA and/or refuse to participate further in the EVENT(S).

2. HEREBY RELEASES, WAIVES, DISCHARGES AND COVENANTS NOT TO SUE the promoters, participants, racing associations, sanctioning organizations or any subdivision thereof, track operators, track owners, officials, vehicle owners, drivers, pit crews, rescue personnel, and any persons in any RESTRICTED AREA, promoters, sponsors, advertisers, owners and others who give recommendations, directions, or instructions, or engage in risk evaluation or loss control activities regarding the premises or EVENT(S) and each of them, their directors, officers, agents and employees, all for the purposes herein referred to as "Releases", FROM ALL LIABILITY TO THE UNDERSIGNED, his personal representatives, assigns, heirs, and next of kin FOR ANY AND ALL LOSS OR DAMAGE, AND ANY CLAIM OR DEMANDS THEREFOR ON ACCOUNT OF INJURY TO THE PERSON OR PROPERTY OR RESULTING IN DEATH OF THE UNDERSIGNED ARISING OUT OF OR RELATED TO THE EVENT(S), WHETHER CAUSED BY THE NEGLIGENCE OF THE RELEASEES OR OTHERWISE.

3. HEREBY AGREES TO INDEMNIFY AND SAVE AND HOLD HARMLESS the Releasees and each of them FROM ANY LOSS, LIABILITY, DAMAGE, OR COST they may incur arising out of or related to the EVENT(S) WHETHER CAUSED BY THE NEGLIGENCE OF THE RELEASEES OR OTHERWISE.

4. HEREBY ASSUMES FULL RESPONSIBILITY FOR ANY RISK OF BODILY INJURY, DEATH OR PROPERTY DAMAGE arising out of or related to the EVENT(S) whether caused by the NEGLIGENCE OF RELEASEES or otherwise.

5. HEREBY acknowledges that THE ACTIVITIES OF THE EVENT(S) ARE VERY DANGEROUS and involve the risk of serious injury and/or death and/or property damage. Each of THE UNDERSIGNED also expressly acknowledges that INJURIES RECEIVED MAY BE COMPOUNDED OR INCREASED BY NEGLIGENT RESCUE OPERATIONS OR PROCEDURES OF THE RELEASEES.

6. HEREBY agrees that this Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement extends to all acts of negligence by the Releasees, INCLUDING NEGLIGENT RESCUE OPERATIONS and is intended to be as broad and inclusive as is permitted by the laws or the Province or State in which the Event(s) is/are conducted and that if any portion thereof is held invalid, it is agreed that the balance shall, notwithstanding, continue in full legal force and effect.

I HAVE READ THIS RELEASE AND WAIVER OF LIABILITY, ASSUMPTION OF RISK AND INDEMNITY AGREEMENT, FULLY UNDERSTAND ITS TERMS, UNDERSTAND THAT I HAVE GIVEN UP SUBSTANTIAL RIGHTS BY SIGNING IT, AND HAVE SIGNED IT FREELY AND VOLUNTARILY WITHOUT ANY INDUCEMENT, ASSURANCE, OR GUARANTEE BEING MADE TO ME AND INTEND MY SIGNATURE TO BE A COMPLETE AND UNCONDITIONAL RELEASE OF LIABILITY TO THE GREATEST ALLOWED BY LAW.

BOSTON CHAPTER DRIVING SCHOOLS - GLOSSARY OF TERMS

APEX	A point describing where a vehicle drives near the inside edge of roughly the center of the corner
BREATHE	To relieve pressure on throttle slightly/moderately, but not released completely
BOTH FEET IN	The application of the driver's two feet, one on the brake, one on the clutch (assuming std. transmission) to bring a spinning vehicle to a safe stop
CAMBER	The lateral grade, or tilt of a surface
CONTACT PATCH	The portion of a tire coming in contact with the road
COOL-DOWN LAP	The final lap before entering the pits at the end of the driving session
EARLY APEX	Net result of early turn-in, the most common of all mistakes, very slow, and potentially the most costly
EASE IN/EASE OUT	Judicious application of throttle
FRICTION CIRCLE	A graph on which the cornering, braking and acceleration forces of a vehicle are plotted
HEEL & TOE	A term used to describe a method of simultaneously shifting and braking
HELMET FIRE	a.k.a. "Red Mist" – the state of being where a driver is over-stimulated to the point where judgment may be impaired
LATE APEX	Net result of a late apex, slow but typically not dangerous, also can be used intentionally to a moderate degree for a Type I turn (leading to an important straight)
THE LINE	The term used to describe the optimized path on which a vehicle should be traveling
OVERSTEER	A condition where the rear tires are sliding more than the front tires
PASSING ZONE	A portion of the track designated for over-taking (passing)
PIT-IN SIGNAL	A hand signal given by the driver of a vehicle warning that he or she is traveling slowly, whether about to enter the pits or not
POINT-BY	A hand signal given by the driver to indicate on which side another car should pass
REFERENCE POINT	A landmark used by the driver to help judge distance
ROTATION	The turning of a vehicle by using brakes and/or throttle, see Trailing Throttle, Trailing Brake, also Weight Transfer
SKID PAD	A circular surface that provides a driver with a perpetual corner
SPIN	A condition where the tires have lost traction and the vehicle is spinning around its vertical axis.
STEERING LOCK	The amount of steering input provided by the driver
STRING RULE	The principal that emphasizes the relationship between straightening the steering wheel and applying throttle as if a string was connecting the two. Also works for relationship between brake and steering wheel
THRESHOLD BRAKING	The point at which a vehicle is braking with as much force as possible
TRACK-OUT	A point where the vehicle passes close to the outside edge of a track while exiting a corner
TRAILING-BRAKE OVERSTEER	An oversteer condition caused by releasing the brake pedal as the vehicle is turning
TRAILING-THROTTLE OVERSTEER	An oversteer condition caused by the transfer of weight from the rear to the front tires as throttle is abruptly reduced
TURN-IN	A point at the outside edge of the track where a vehicle turns into a corner
TYPE I TURN	Turn that leads directly to a straight, considered the most important type
TYPE II TURN	Turn that is at the end of a straight, less important

- TYPE III TURN** Turn that connects two other turns, does not lead onto or end a straight. Considered the lowest priority, some are considered “throw away turns” implying that taking the traditional textbook “line” may even be counter-productive
- UNDERSTEER** A condition where the front tires are sliding more than the rear tires
- UNWIND** Returning the steering wheel to the center position
- WEIGHT TRANSFER** The altering of the vehicle weight supported by each tire as a result of lateral and/or longitudinal acceleration

The Corner Flags



- STEADY YELLOW** - Indicates danger ahead - **NO PASSING** - **SLOW DOWN**
DOUBLE YELLOW - Indicates Full Course Yellow - **NO PASSING** - **SLOW DOWN**
WAVING YELLOW - Indicates ON-TRACK danger ahead - **NO PASSING** - **SLOW DOWN**



- LACK FLAG** - Proceed to the Pits - Displayed at both Start & Black Flag Station with number board
ALL - Proceed to the Pits - Black flag at all stations with "ALL" sign at Start and Black Flag Station
MEATBALL - Proceed to the Pits - Displayed at both Start & Black Flag Station with number board
RED - Indicates session stoppage - **NO PASSING** - **PULL TO SIDE of TRACK** - **STOP**



- DEBRIS FLAG** - Liquid or parts on track - **WARNING**
BLUE FLAG - Over taking cars approaching - **WARNING**
WHITE FLAG - Emergency and/or slow cars ahead - **WARNING**

Aftermarket Harness Installations

We have seen several instances of improperly installed aftermarket safety harnesses in driving school cars. In addition to these installations being dangerous for the driver, the required time to inspect installations adds time to an already tight schedule. The pictures and comments below are an attempt to provide clarity around how the harness strapping is to be passed through the harness buckles.

It is strongly recommended that the shoulder harnesses are fitted as close to horizontal as possible. It is a must that the angle of the shoulder harness does not exceed 45 degrees in relation to the theoretical horizontal axis of the mounting points. It is recommended that the harnesses be mounted to the fixing points suggested by the car manufacturer. The fixing points should always be reinforced by a steel plate fitted on the outer side of the car, not by welding or pop riveting. After an accident or a heavy crash, it is a must to replace the harnesses and carefully recheck their fixing points in the car. Belts do not have to be in contact with parts that damage it. Should the belt show any wearing or cuts, it must be immediately replaced.

