

# PCA Autocross Guidelines

Version 2011

## Introduction

An autocross is an all-forward-motion, skill-driving event, in which a car is timed over a course laid out on a paved area (often a large parking lot) and is marked by short, soft road pylons (cones) and, in some cases, white lime or chalk. An autocross is often competitive, but is always educational and social. No passing is allowed and the cars are to be spread out on the track so as to maintain a safe distance between them. Continuous laps are specifically prohibited unless it is a closed (looped) course where a practice and timed lap are run together (ie. 1 practice lap plus 1 timed lap or 1 practice lap plus 2 timed laps).

In organizing and conducting an autocross, the primary consideration is always safety. The principal requirements are that the event:

1. Be planned and conducted with safety as a primary concern
2. Be covered by PCA insurance
3. Demonstrate a concern for the safety of entrants, workers and observers in its procedures and instructions.

**Notice:** Motorsports, including autocross, are potentially hazardous activities. Accidents at autocrosses have occurred in the past. The intent of these guidelines is to assist Regions in the organization of autocrosses that will be safe and enjoyable experiences; however, they are in no way a guarantee against injury to participants or others. The ultimate responsibility for the safe conduct of a motorsports event lies with the Region organizing the event and with the participants.

The competitive aspect involves negotiating a pre-designed course averaging about one to two minutes in duration. Cars are usually divided into classes according to performance capabilities. The elapsed time on course for each car is timed and recorded. A two second penalty is assessed for each pylon tipped over or knocked out of place, and the penalty is added to the elapsed time. The corrected times are compared with others in the car's class and are used to determine event placing and, in some Regions/Zones, season championship points. Trophies may be awarded to top finishers in individual events and season-long championships. The educational aspect involves learning the characteristics of the car, its strengths and limits, and how it will respond to driver input in a variety of conditions. The social aspect includes getting to know the other drivers from within the Region and from other Regions in the Zone. (A general introduction to PCA speed events is found in the *PCA Region Procedures Manual - RPM*.)

What follows in these guidelines is a list of some of the basics to be considered when putting on an autocross - basics that have been formulated from the experiences of event chairpersons and experienced autocrossers throughout PCA. The purpose of these guidelines is to focus on the safety aspects of autocrossing and not to dwell on organization or configuration. An excellent source of information regarding autocross is the latest copy the PCR's (*Parade Competition Rules*) available from the PCA National Office or [www.pca.org](http://www.pca.org).

These guidelines are a compilation of several PCA region, zone and national guidelines as well as some SCCA guidelines. If you want to research an excellent step-by-step approach to course setup, Houston

SCCA member Roger Johnson, has an informative course design manual at <http://www.houscca.com>. Keep in mind that all sites don't need to be large. Successfully designed courses on smaller facilities can be safe and fun.

## Advance Preparation

### Insurance

All PCA driving events require liability insurance. To obtain this coverage for a moving car event, a region must complete an **Event Insurance Enrollment Form** (to be found in the *Region Procedures Manual* or on the [www.pca.org](http://www.pca.org)). It should be completed according to the instructions on the form and sent to the PCA National Office at least three (3) weeks in advance of the event. If you do not have a **Certificate of Insurance** in hand before the commencement of your moving car event, you DO NOT have insurance coverage. Verify that the certificate is available and posted for entrants to see at the event.

### Licensing

All drivers must have a valid state or provincial driver's license. It is recommended that entrants show their licenses when they sign in on the day of the event.

### Junior Participation Program

16 and 17 year olds may participate in autocrosses according to the rules and procedures of the Junior Participation Program. Make sure you are familiar with the JPP requirements regarding minors at a competitive driving event. (See the *Region Procedures Manual* or [www.pca.org](http://www.pca.org)).

### Event Waivers

Make sure that you have a supply of current PCA insurance waivers and release forms printed in color. There are five types:

1. **Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement** for adults over 18 years of age
2. **Waiver and Release of Liability and Indemnity Agreement for Minors in Restricted Areas, Driving or Riding** for participating minors that will be assisting or otherwise involved with the event (such as working as a volunteer)
3. **Waiver and Release of Liability and Indemnity Agreement for Minors as Observers Only** for minors that are totally uninvolved with the event (not working it or otherwise involved)
4. **Parental Consent, Release and Waiver of Liability, Assumption of Risk, and Indemnity Agreement for Minors in Touring Laps Only** for minors that are only participating in touring laps of the track
5. **Minor's Assumption of Risk Acknowledgement** for JPP participants

All persons in attendance, including officials, must sign a waiver. If waivers are not provided, the event is not covered by PCA insurance and must not proceed. Original signed waivers from the event should be retained and stored for 4 1/2 years after the event. For more information on waivers and PCA Insurance procedures see the *Region Procedures Manual* or [www.pca.org](http://www.pca.org).

**Pre-registration** is usually not required but may help in administration. If the autocross is a multi-region or Zone event or intended to attract a large number of drivers, pre-registration is helpful in determining the number of workers needed, facilities to be provided, etc.

## Event Organization

**Workers** should be recruited to cover the following jobs:

- A) A registrar whose responsibility it is to have all attendees, including workers and spectators, sign the appropriate insurance waiver, collect the entry fee, distribute any special instructions, etc. It is recommended that the registrar have an assistant.
- B) Experienced supervisors in the following areas: tech inspection, grid operation, timing and scoring, flagging, course workers.

### Course Design - Objectives

1. Provide for the safety of cars, drivers, workers, and all other attendees, with particular attention given to sufficient distances from stationary objects, drop-offs, viewing areas, etc. The course should be laid out with the following minimum requirements:
  - a. The course shall be on paved surfaces with no loose gravel, dangerous holes, gratings, or oily spots. Dips or bumps that could get a car unsettled shall be avoided.
  - b. The course boundary shall not pass closer than 25 feet to any stationary object, including raised curbs (concrete or otherwise). The safety margin should be increased appropriately near fast corners or areas where cars may run off the intended driving line. Design courses away from obstacles and possible skid directions.
  - c. Viewing areas for participants and guests must be a minimum of 75 feet from the course edge unless protected by substantial barriers. This safe distance is particularly critical at the outside of turns and at the start and finish lines.
  - d. A long straight should not terminate in an extremely sharp turn.
  - e. The fastest portions of the course shall be most remote from spectators and property.
  - f. Clearly define the course boundaries with pylons (and white lines where allowed). Course boundaries must NEVER be defined by curbs, buildings, poles, trees, soft shoulders, or other hazards likely to cause damage to a car.
  - g. Extreme care should be taken in the location of the start, finish, staging and timing areas. The timing and staging area must be placed well clear of the course in a safe area. Reduce speeds near the finish line to allow for a safe manageable course exit. Avoid maneuvers that could cause loss of control near the finish.
  - h. Long straights shall not terminate at a point where participants or obstacles are directly in front at a distance closer than that required to bring a car to a halt even with brake problems, a stuck throttle, etc.
  - i. In most cases, gates on the course should be a minimum of 15 feet wide to allow drivers to select a preferred line.
2. Common sense and good practices for designing an enjoyable, educational, safe and challenging course:
  - a. Post at least one clear map of the course at the event and/or provide an individual copy of the course map for each driver.
  - b. Clearly define the course boundaries with pylons. Pylons should be outlined with chalk and a time penalty assessed for knocking cones out of the box.
  - c. Allow for a safe, non-panic stop and exit from the course. A complete stop is recommended after completing the run with sufficient distance past the finish line to safely slow the car down, as well as removing the car from any runoff area of other cars still on course. It is recommended that pylons hit after the finish line be assessed as penalties.

- d. Generally, maximum speeds on straight stretches for stock or street prepared vehicles should not exceed 55 to 70 MPH, since these are speeds the average driver is familiar from everyday road driving. Similarly, speeds for turns should not exceed 45 MPH in unprepared cars.
  - e. Slight to modestly off camber turns should be used sparingly and highly negative camber turns should be avoided.
  - f. Allow plenty of separation when running cars simultaneously. Cars shall not run in close proximity to each other. Allow adequate time to flag a following car to a stop if the preceding car knocks down a cone or gets into trouble.
  - g. Instruct participants to drive slowly (5 MPH max, first gear) when moving in grid and paddock areas.
  - h. It is recommended that there be reliable communication (not hand signals) between the timing station, grid, and course workers. This is especially useful in events held on very large sites. Most Regions use inexpensive 2-way radios for this. An effective public address system is recommended for communication with course workers and communicating to all attendees.
  - i. Laying out a course to comply with these safety recommendations, calls for the exercise of prudent good judgment and common sense.
3. Other safety preparations:
- a. Course workers should be provided with red flags to halt cars in case of hazardous conditions or timer malfunctions. Course workers shall remain standing (no chairs should be allowed on course).
  - b. Course workers should not be allowed to use cameras or cell phones while working course. Photographers are permitted as long as they are accompanied by a spotter to warn of approaching vehicles.
  - c. Dry chemical fire extinguishers rated 10-BC or better should be readily available for the course and pre-grid area. Extinguishers should be inspected regularly and serviced as recommended by the manufacturer.
  - d. All pets must be kept on a leash. No pets are allowed on the active course.
  - e. No minors should be allowed in the grid area or at a flag station or near the course.
  - f. Establish a clear policy that forbids the use of alcoholic beverages and controlled substances on the part of any person (participant, worker, and spectator) on the site (including non-hot areas) until the event has ended. This policy should be announced at the drivers meeting before the event begins.
  - g. Before the event develop a plan to cope with emergencies, such as arrangements for ambulance and fire services and/or other service vehicles.
4. Worker Stations:
- a. Coverage distances for workers should span approximately 50 yards or less
  - b. Position stations near solid objects when possible
  - c. Locate workers on inside of turns
  - d. Anticipate possible directions that a car may spin and avoid those areas for worker stations
  - e. Prioritize stations close to cones likely to be hit
  - f. Try to place workers so that they don't have to cross course to pick up a downed cone

### **Preliminaries**

After setting up the course and placing equipment, there are other operational factors to consider in running a smooth, safe event. Both the driver and the car must comply with certain guidelines. Additionally, all personnel running the event should be familiar with event procedures prior to arriving

at the site so they may concentrate on running an efficient and safe event. It is recommended that a preparation meeting be held before the event to assure supervisors are familiar with procedures.

### **Car Classification**

Typically cars are classified according to their performance characteristics and level of modification beyond stock. There are many different classification schemes and philosophies. The *Parade Competition Rules* (available on [www.pca.org](http://www.pca.org)) is one approach that you can turn to for reference. You can also look at other regions and clubs for guidance.

### **Driver Preparation**

Drivers should wear clothing made of natural fiber. Any Shoes should be closed (i.e. no sandals) and have low or no heels and be flexible. Shoes and boots with heavy lugged soles are strongly discouraged. Helmets are required and should have the latest or immediate preceding Snell Memorial Foundation approval date. Drivers of open cars should wear full-face helmets with face shields

### **Vehicle Safety Equipment**

Many drivers add safety equipment to their vehicles, especially if they are highly modified. This equipment includes but is not limited to roll bars and cages, fire extinguishers and racing harnesses. It is highly recommended that any such equipment meet the standards set for Club Racing (see the Club Racing rules on [www.pca.org](http://www.pca.org)). Roll bars are strongly recommended for all open cars. Refer to the latest edition of the PCR's or the Club Racing rules, for more detail. It is **mandatory** that any aftermarket safety equipment be installed according to the manufacturer's instructions. Evidence of compliance shall be provided by the driver, if necessary. Note: Most, if not all, harness system manufacturers require that a SFI or FIA certified seat (with the proper routing holes) be used in conjunction with their harnesses.

### **Safety Inspection**

Every car should be inspected for safety before being allowed to run. Due to time constraints, it is recommended that at least two persons conduct the safety inspection at the beginning of the day so that the event may start without delay. This activity may be carried out in a specially designated area or on grid. Safety inspectors must be aware of the items to be checked. Before tech, all cars must be in track ready condition (tires mounted, loose objects removed from the car, helmet, etc.). The "no loose objects" rule means that any objects heavy enough to cause injury to you in case of an incident must be either removed from the car, or firmly and permanently affixed.

As a minimum, the following items should be checked:

- A) Older cars should be checked for structural integrity. Safety updates are encouraged on these cars.
- B) Each car must be equipped with adequate seat belts or harnesses. Three point belts are highly recommended but two point belts are acceptable for vintage automobiles that did not come with OEM three point belts. Harnesses should be SFI or FIA certified and should be installed according to the manufacturer's instructions, including the installation of proper seat, if required by the manufacturer. See the PCA DE Standards or Club Racing Rules (on [www.pca.org](http://www.pca.org)) for more information. Seat belt and harness inspection shall include checking:
  - a. If belt webbing is frayed, split, or torn.
  - b. If belt anchorages or attachment fittings are loose, badly corroded, missing, or not fastened to belt.
  - c. If belt buckles are loose or inoperative.
  - d. If seat belt retracts properly and will adjust to allow proper fit.

- C) All wheels must not have visible cracks or structural faults. All lug nuts must be in place and torqued to spec.
- D) Tires must be free of visible cracks and cuts. There must be a safe amount of tread rubber remaining on all four tires with no cord showing. Tires must not be under inflated. Tires should not rub the fender or well. Tire age should be within normal tire life expectancies.
- E) The car must not have fluid leaks and filler caps must be secured.
- F) There should not be excessive wheel bearing play.
- G)
- H) Batteries must be held in place securely.
- I) All loose objects inside the passenger compartment or trunk(s) must be removed.
- J) Snell approved helmets, M or SA rating, which have the current available Snell rating or the one previous Snell rating are required (check for Snell sticker inside the helmet). Other helmets that are approved for Club Racing are also acceptable.
- K) Throttle return springs shall return smoothly with no binding action.
- L) Adequate mufflers are required. Excessively loud cars should not be allowed. Noise pollution continues to be a cause for regions losing event facilities and utmost care should be taken to protect those sites.

After passing inspection a Safety/Tech sticker should be affixed and color-coded for each day (at a 2-day event some drivers only come for second day and need to go through inspection on the second day). Helmet stickers (issued at first event showing a good through date) should be checked.

When entering a PCA driving event, the driver/owner acknowledges that high speed driving is inherently dangerous. Passing the technical inspection means that the automobile has met minimum safety standards for participation in a PCA event. However, no technical inspection can uncover all possible defects inherent in the vehicle design or otherwise, and neither PCA nor the inspectors can predict unforeseen circumstances. Neither the Porsche Club of America nor the tech inspectors make any express or implied warranty of fitness for any purpose. It is the responsibility of the owner and driver to select a safe vehicle and see to its adequate preparation, as well as to insure the safe operation of the vehicle and to maintain the car's safe operating condition.

It is the obligation of the driver to bring a safe and rule compliant car to any Tech or Pre-Tech inspection and to the driving event. Do not expect the tech inspector to find all safety or rule compliance issues. The tech inspector should discuss with the driver/owner any discrepancies between the driver's inspection/preparation and the tech inspector's observations. The goal of these discussions should be increased understanding and education.

### **Final Inspection**

Before any car is allowed to run a final inspection of the course and equipment should be made by the Region or Zone safety chair or by a designee.

## **Event Operation**

### **Release and Waiver Forms**

All participants and guests must sign a Release and Waiver form. Establish a checkpoint at the entry to the site through which all attendees must pass. The first person at the site should be the person in charge of obtaining signatures on the waiver from all participants and attendees. This procedure will assure that all attendees (entrants, guests, family members, officials, etc.) sign the appropriate waiver.

Often this job is isolated from the event, and occasionally needs support dealing with questioning persons wanting to gain entry, including PCA members. Using two or three teams, each consisting of two workers serving in shifts, usually works well.

### **Drivers/Workers Meeting**

Before the first car runs, the event chairperson or designee should explain all of the "ground rules" and safety rules to all the participants. This should include:

- A) The meaning of each flag,
- B) Procedures to be followed in case of a "red flag" situation,
- C) Emphasis on safe conduct in the grid area and in the general site area, establishing a maximum speed of 5 mph (grid and paddock) and stressing that "tire warming" is not permitted.
- D) Reminding course workers to remain alert and observant, to watch each car as long as it is on course, and to carry their red flags at all times,
- E) Reminding all that the use of alcohol or controlled substances is forbidden.
- F) Reminding all that only entrants and approved instructors (for the sole purpose of instructing) are allowed in cars (with the exception of track tours).
- G) Reminding all participants that all pylons after the start will count as penalties.

### **Grid Operation**

A well-run grid system is important because it is the key to an efficient event and to the overall satisfaction of the entrants and the officials. Several successful grid systems have been devised and can be successful in certain applications. A grid worker at the course entrance should make a final check of the car including a properly fastened seat belt, helmet, and other safety items.

### **Attendee Control**

Many entrants come to autocrosses with family members or friends. It is essential that no attendee be allowed to venture into an unsafe area. Therefore, it is recommended that workers be assigned to keep everyone away from potential hazards. No minors should be allowed in the grid area or at a flag station or near the course. Pets are not allowed on or near the course when it is active.

### **Passengers/Instructors**

Only one registered entrant is allowed in a car during a timed run. However, an instructor, approved by the Region or Zone, may ride with an entrant or an entrant may ride with an instructor. No guests, friends, children, workers, etc. shall be permitted to ride in a car at speed on the course. The workers on grid should enforce this rule.

### **Fun Runs**

These are runs allowed to registered entrants at the end of the event after the official timed runs have been completed, time permitting. They are common in some Regions and provide an excellent way for participants to practice the skills needed for autocross. To allow fun runs the course must be fully staffed, meaning a full complement of workers and safety equipment in place. All event safety rules must still be complied with.

## Post Event

### Post Event Reports

The **Post Event Report** must be filled-out by the event chair. It is available in the *Region Procedures Manual* and online at [www.pca.org](http://www.pca.org).

### Observer's Report

Observer's reports must be filled out according to the **PCA Guidelines For Observer And Incident Reports**, which is available in the *Region Procedures Manual* or on [www.pca.org](http://www.pca.org). You will find the **PCA Observer's Report For Autocross** available there as well. This is the form to use for an autocross.

These reports are used to track safety consciousness at PCA events and to record conditions that existed at a given event. Should marginal event conditions occur, the PCA National Safety Chairman might contact the region and offer suggestions for improvement.

### Incident Reporting

In the event of damage or injury, a report of the incident must be filed according to the **PCA Guidelines For Observer And Incident Reports**, which is available in the *Region Procedures Manual* or on [www.pca.org](http://www.pca.org).

The **PCA Incident Form** is also in the *Region Procedures Manual* and online at [www.pca.org](http://www.pca.org).

If there is an incident, do not make any comments to anyone regarding the incident, including the media, except that "*there will be a full investigation and any further comment would be inappropriate at this time.*" Do not admit to or imply any fault by anyone.

Additionally, if there is an incident, host Region officers should locate and take custody of all signed waiver and other forms for that event. Do not release these documents or copies of them to anyone without specific advice and clearance from the PCA Insurance and Risk Management Chairman.

### Cancellation of Event

If an event is cancelled, notification should be made to the PCA National Office by email no later than 24 hours after the scheduled date of the cancelled event. Doing this on time will save PCA money.