



Corvettes In Paradise

Novice Autocross Handbook

In accordance with NCCC Rules

Adapted from the SOLO II Novice Handbook

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<https://corvettesinparadise.org/events/>

Table of Contents

| | |
|---|-----------|
| What is Low-Speed Autocross? | 3 |
| On Being a Novice | 5 |
| What to Bring to an Event..... | 6 |
| What Happens at an Autocross..... | 7 |
| Tech Inspection Requirements..... | 10 |
| Working Rules and Safety | 12 |
| Car set-up Tips | 14 |
| Course Walking Tips | 15 |
| Autocross Etiquette..... | 19 |
| Corvette Competition Classes | 20 |
| NCCC Championship Points | 20 |
| Recommended Reading | 21 |
| Back to Reality..... | 22 |

What is Low-Speed Autocross?

Low-Speed **Autocross** event is an all-forward motion driving skill contest. Each driver is individually timed to the thousandth of a second, over a short, miniature road course clearly defined using traffic cones. Cars compete one at a time in a class with similar cars. An event can be held on any flat paved surface, usually a parking lot, or airport apron or runway.



Autocross emphasizes driver skill and vehicle handling rather than speed. The corners are tight, and there are lots of them, so the driving is exciting and challenging. Autocross speeds do not exceed those normally encountered in highway driving. This is the main difference between Low-Speed Autocross Events and High-Speed Events or Time Trials, where much higher speeds are attained and require a high-speed license or endorsement. High Speed licenses are granted by the Regional Competition Director, RCD, after you have participated in at least 10 autocrosses or driving schools (NCCC or SCCA) during the past 24 months.

The skills you learn and practice here; smooth transitions, enhanced braking, and skid correction, will have an immediate impact on improving the safety and skill of your street driving. Autocross is an excellent way to teach car control to young drivers in a safe environment.

Autocross is also a very social sport, filled with some of the friendliest people you'll ever meet. The camaraderie of the drivers, both male and female, young and old, is a special part of autocrossing that is profoundly satisfying.

Cars are divided into classes based on the Corvette year and model and customization (as of 2022).

- **Factory Stock Class** - No changes or modifications, tires must have a minimum tread depth of 2/32" in all major grooves, a tread wear rating of 160, tires and wheels must be stock size.
- **Street Class** - modifications allowed to air intake, intake manifold and related parts, exhaust, suspension, computer, minor body changes, DOT approved race tires, any size tire and wheel combination that fit without touching frame or body at anytime.
- **Modified Class** - Cars with non-DOT tires (race slicks), superchargers, or turbocharged, or if the car is severely modified) Modified class is not broke down by years, all modified cars run in the same class. Any Corvette that does not have a full interior must meet NCCC rulebook safety tech for Group 3 cars.

The complete descriptions of classes and preparation allowances are spelled out in the NCCC rule book. The current Competition Rule Book can be found on the NCCC website.

www.corvettesnccc.org then select Competition.



The costs of Autocross competition are reasonable because you can compete in the Corvette you drive on the street every day. Entry fees vary by the host club usually \$10 to \$35 per driver, per event, and two drivers can share a car. Registration fees may be higher (or lower) depending on your desire to leave an event with a trophy. You will be assigned a unique competition number in the range of 20 to 1000. These numbers must be placed on the both side doors for the sole purpose to be viewed by the workers in the timing trailer in order to get your times correctly posted. If they are not visible the timers may decide that your run times were invalid or assigned incorrectly.

Two driver cars must block out the appropriate number to be assigned the correct times. Example: 80 for driver #1, and 801 for driver #2. **A VISIBLE piece of tape diagonally** across the 1 would be sufficient to designate which driver is currently in the car.

National Conference of Corvette Clubs (NCCC) sanctioned events are insured through the NCCC and are conducted under the watchful eyes of Regional NCCC Competition Directors, (RCDs) and/or Governors. The rules and guidelines, established by the NCCC and Regional Clubs, are what makes this one of the safest motorsports. A day of autocrossing is far safer for both car and driver than most people's daily commute to work. Your car is relatively safe if you follow the current NCCC rules. Corvettes are famous for forgiving the sins of inexperienced drivers.

Most NCCC clubs may run several separate sanctioned autocross events in one day or weekend, to maximize the experience (and competition points) of traveling to their region. Additionally, the Autocross may be bundled on a weekend with other events which include Rallies, Funkhanas, Car Shows, Concourse Shows, banquets and even conventions.

There are many events in the schedule for you and your family to have fun with your Corvette all over your Region. Check out the latest events at www.corvettesinparadise.org/events.html. The events you don't want to miss are the Novice Driving Instructional Schools with a follow-on autocross the same day.

On Being a Novice

You'll remember your first event for a long time. The adrenaline that makes you shake at the start-line before your first run, and the even bigger surge of adrenaline you feel when you finish. That excitement is part of the sport, and it's why we all do this.

Please don't let being a novice overwhelm you! Every driver including the Regional and National Champions, had a first day and a novice season. Autocrossing is a skill that requires instruction and practice to see improvements. If it was easy, it wouldn't be so competitive, or so fun. The great thing about this sport, though, is that even when you're going "slow", it's still fun driving.

The course may seem "busy" at first, because it's tighter than what you see on the street, and you're trying to attack it faster than you could in traffic. You'll have fun learning the sport and learning to keep the car in control as you get faster and better with more seat-time.

Generally speaking, the veteran drivers like to help the novices. The magic words "**I am a novice**" will get you extra instruction from other competitors, who can critique your run. Depending on club rules, Novice drivers typically can ride with more experienced drivers to help learn the course. Novices are also able to have an "experienced" autocrosser as a passenger as long as the driver has already completed his or her first run (it's a big advantage to a competitor to see the course at speed).

With that said, here are some tips to give you the right novice attitude, so you don't become discouraged:



- Your goal is to have fun! That's why everyone is here.
- Your goal for the first run is to avoid getting lost on course (see course-walking tips). And pay attention at the driver's meeting.
- Your goal for the rest of the day is to improve your time on each run
- Your goal for the second event is the same as the first.
- Your goal for the rest of the season is to beat somebody (anybody!) and continue to make each run faster than the last.

At this point, you are learning a lot on each run, and you may be 20 seconds behind the class leader. That's not unusual! You're still doing OK. Your times will only be compared with other novices in your class and you'll soon be winning trophies.

Just be careful not to interrupt a driver on a course walk, or while he or she is concentrating on going over the course in his or her head. (See the section on Etiquette.)

What to Bring to an Event

This list covers most things from sunscreen, water, snacks, to tire pressure gauges, possibly even a small pump. You will probably come up with your own list of things, but this will get you started.

You must have:

- Your car / Corvette, (although you may share a car with someone else)
- Your entry fee
- A valid driver's license
- NCCC membership card with your NCCC number.
- A safety helmet (**Snell approved and less than 10 years old**) or someone to loan you one.
- Competition Numbers of at least 6" and Tape to Identify your car
 - Print Large Numbers [HERE: Numbers 0-9.pdf](#). (www.corvettesinparadise.org)
 - [Non-Magnetic Re-Usable Vinyl Numbers](#) from the AXWareSystems.com website.



You may want to bring:

- A good tire gage to check the air in your tires. Typically, the air pressure will increase during the day and you will need to let some out for better traction.
- A small air compressor would be helpful after the event to bring the tires back to normal driving specs.
- A pad and pencil or electronic device to write down all the advice you'll get
- Chalk or white shoe polish to mark the tire edges for cornering and tire pressure.
- Torque Wrench and Hydraulic Jack if you are changing tires.
- Suitable closed-toed shoes for driving. The best are light-soled, with a narrow sole which does not stick out past the side of the shoe. There are driving shoes on the [NCM Website](#).
- Sunglasses with croakies to keep them secured.
- Sunscreen
- Clothes appropriate for the weather forecast, plus a change for when the forecast is wrong.
- Rain gear / umbrella – Autocrosses will usually run even if it rains.
- A hat for when you remove your helmet.
- Compact Folding chair(s)
- Water or other *non alcoholic* beverages
- Cooler for lunch or snacks and napkins
- Windex and paper towels
- Video action camera or a GoPro to capture your events.
- Trash Bags – we ALL must leave the place as clean as when we got there!
- Drones are typically not allowed.

Yes, you can fit this all in the back of a Corvette! You'll notice several canopies in the following pictures. These fold-up and fit in between the seats, and when shoved to the rear, leaves enough room for shifting. We place all of our race paraphernalia, frozen water bottles and snacks in a plastic container (about 10 gallon size). Add the folding chairs, and a suitcase for the overnighter and you are good to go.



What Happens at an Autocross

People begin arriving before registration opens, so they can unpack their car and get ready for the day before registration begins. Generally, because the events may not attract more than 30-60 Corvettes, refreshments will not be provided. We normally scope out where the nearest coffee and fast food shops are the night before and hit them on the way from the motel to where the track will be setup. It is best to arrive at or before the beginning of registration so you will have time to register, sign an insurance waiver, tech your car, walk the course, and have ample time to talk to the organizers from the hosting club.

Registration and Signing The Waiver

To register you must have a valid driver's license and entry fee, usually \$50 to \$200 in check or cash depending on the number of events you register for. Fill out the information on the registration form at the registration area if you have not pre-registered earlier in the week.

Then EVERYONE including guests must read and sign the insurance waiver in order to be covered by the NCCC Liability Insurance! You only need to sign once for the weekend or for all the events in the flyer. If you do not sign the waiver you will not be awarded points or insurance coverage.

The organizers will help choose the class for your car if you don't know what it is. If you don't already have one, you will also be assigned a unique car number for the day. Some numbers are reserved by many of the more seasoned drivers.

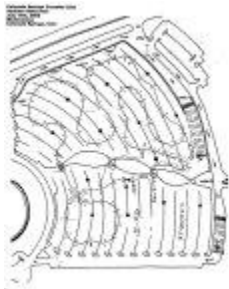
Once you know your class, car number and run group, mark your car using the big numbers from the organizers, or have them printed, then tape the paper numbers on the side of both doors, or use vinyl numbers if you have them. If rain is a possibility, you can use plastic wrap on the paper numbers to keep them intact. And if necessary, you can even use painters' tape to form the numbers. **But most importantly the numbers must be visible to the workers in the timing trailer!**

Tech Inspection

Your car must pass tech inspection before you can compete. You may have to park in a separate area, the 'pit', to unload your car prior to registration before being eligible for tech inspection. Find some shade for your folding chairs. After you have registered, put on your numbers on both doors and then move your car to where the 'pre-staging' is, open the hood, leaving the keys in the ignition and your helmets on the roof/seat/trunk. Most of the time, the official tech inspector(s) will come to your car and put a sticker on your windshield once you have passed the safety inspection. You may be asked about suspect parts that might place you in a different class than 'Factory Stock'. Read the tech inspection chapter and the NCCC rules beforehand so there are no surprises on race day. The tech inspector will approve your tech inspection sheet if you pass, or recommend changes to make the car pass, such as additional tie-downs for the battery or removal of loose items or hub caps if you've forgotten. You will then sign and date this Tech Sheet and hand it in.



Course Walking



After tech, you will have time to walk the course. Before you go, read the chapter on course-walking tips. Course maps are sometimes available at registration, and the organizers may take you on a guided walk before or after the drivers' meeting. Try to have the course memorized before you go on the guided walk. **The more circuits you make around the course, the less chance you'll get lost or confused during your first run.**

Drivers' Meeting

The drivers' meeting is mandatory for all drivers. The event chair will hold the meeting approximately one half hour before the first car starts. Be sure to attend. This is where you will find out information, you'll need to know about the course conditions, number of runs, particular safety concerns, how penalties are assessed, and how work assignments will be handled. Feel free to ask any questions.

Your Runs

You will have a minimum of three timed runs, weather permitting. Find out who is running before you and after you, so you know when to line up. Running in order makes the timing people's job easier, and keeps the event running smoothly, but if someone gets in front of you, or you are

running a little behind, don't worry too much about it. The event chair will call out which classes that are assigned to run groups. Then the appropriate group will be announced and are to come to the staging lines. Oftentimes the organizers will use an air horn to signify which run group is up.

Once you are in line, you will wait for the cars in front of you to launch, and you will move up until you are on the start line. **You don't want to get too close to the car at the starting line because their tires can kick up stones and debris.** A starter will tell you when it is OK for you to start. The actual timer will not start until you pass through the timing lights. Don't take too long if we are running two cars on course at once, because your start is timed to make sure you do not get too near the car already on course.



If you do get "lost" on course, take the time to orient yourself and continue. Don't head back to the start line, because you may be pointed toward another car. Just take the time to get back on course, and continue the run as a practice! If the next driver catches up, they will be red-flagged and be granted a re-run (which they'll use to its fullest potential).

Times are posted after each run. Your fastest run of the day is used to determine your finishing position.

Read the Driving Tips section for more detail about your runs.

Your Work Assignments

Autocrosses are volunteer events and most of the technical and organizing functions will be performed by members of the host club. There are assignments, such as 'cone chasing' that can only be performed by the participants, volunteer early on and readily accept assignments if asked. It's best to report for your work assignment as quickly as possible when it is time for you to work. Otherwise, some people end up working longer than others, which is no fun. The place to get work assignments will be announced in the drivers' meeting.

We try to put a novice with an experienced driver on a station if we have enough people. For a little bonus instruction, ask your co-worker to talk about the techniques of the cars on course. Read the chapter on Working to get more detail on how to call in cones and stay safe while working the course.



Fun Runs

If time permits, fun runs are held at the completion of the event while trophies are being readied. This is your opportunity to ride with other drivers and have them ride with you. You may have to reset your own cones if you knock them over.

Course Clean-up

Once all the timed runs and fun runs, if any, are complete, everyone helps clean up the course. This involves bringing in the fire extinguishers and flags, cones and timing equipment, and storing them in the club trailer. Scoreboards need to be cleaned off and the pit area needs to be checked for trash. When everyone helps, this can be completed in fifteen to twenty minutes.

The Awards

The awards are typically based on points accumulated for all of the events each day. If physical awards are to be presented, everyone gathers after the event. Followed by course clean-up and equipment storage. The location for the presentation is usually announced at the drivers' meeting. The event chair and his/her assistants will give out results and present awards or trophies (if available or requested). Accumulation of championship points is the most critically sought amongst the more serious competitors, rather than trophies.

Tech Inspection Requirements

Safety Helmet: All helmets must meet NCCC rulebook guidelines (**Snell approved and no older than 10 years from date of manufacture. A Snell Safety Sticker will be inside the helmet.**)

As of 2022, the oldest Snell approved helmet and sticker would say "SA2012", and so on.

Safety Belts: Seat belts need to be equal to factory belts or better and in good condition. Race harness belts can be no older than 5 years from date of manufacture.

Solidly Mounted Battery: The battery must be held down properly. If it can be moved at all, it will not pass. There are some additional battery requirements which may affect you if you have modified your car. The Tech Inspector will help you out with them.

Legal Tires: In Factory Stock categories, the tires must have measurable tread 2/32 inch in all major grooves and a tread wear rating no lower than 160. Excessive weather checks or visible

cord/plies will fail inspection. Street class may use DOT approved race tires. Tire pressures will vary but should start out a couple of pounds less than what is used on the street.

Brakes: The brake pedal must be firm, with no loss of pressure when held down. And brake fluid should be light in color. **The darker the fluid the older it is and should be replaced.**

Steering / Suspension: The steering must be tight, with no excessive play. Wheel bearings cannot have excessive play.

Loose Items in Car: **All loose items** must be removed from the passenger compartment and trunk. You may remove the spare tire and jack, but you are not required to if they are properly secured. For coupes, the tops can be securely stored in the trunk.

Fluid Leaks: Any Fluid leaks will not pass inspection.

Numbers and Class Markings: The car numbers should be prominently displayed on both sides of the car in colors that contrast with the paint and should be large enough (minimum 6") to be seen easily from the timing table/trailer.

Adequate Muffler: Your car must be quieter than 95db measured 50 feet from the course at a place where you are under full throttle. **Due to the possibility of losing sites for noise problems, this rule is strictly enforced.** (If your car is quiet enough to avoid attracting Police attention, it will most likely pass the noise requirement)

Throttle: Accelerator pedal must have a return spring and operate freely.

You are not required to have your car registered for street use, but it must pass tech inspection.



Working Rules and Safety - “EXTREMELY IMPORTANT”

Do's

Report to work promptly with any radio if available. Sitting in a low chair is not recommended.

Know your area of responsibility and station location, possibly even a zone.

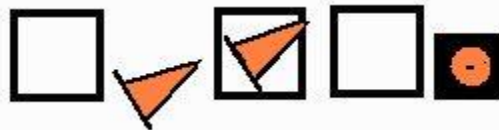
Make sure cones are in their proper place when you get to your station, and check them periodically during your shift.

Pay attention to cars and their numbers on course for accurate cone counts and your safety. It is best to watch the *back* of the car and the cones themselves to see the wobbling cone which may have left the box.

A penalty is given if:

- If the cone is knocked over and is out of the box.
- If the cone is knocked over and is in the box.
- If the cone remains standing but is out of the box.

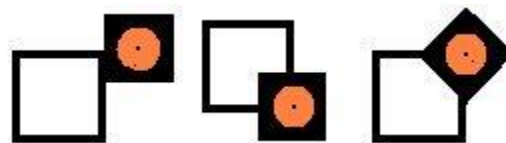
**Penalty
Assessed**



A penalty is NOT given if:

- The cone remains standing is touching the chalked box
- The cone remains standing and is partially in the box.
- And of course, if the cone remains standing within the box.

**No Penalty
Assessed**

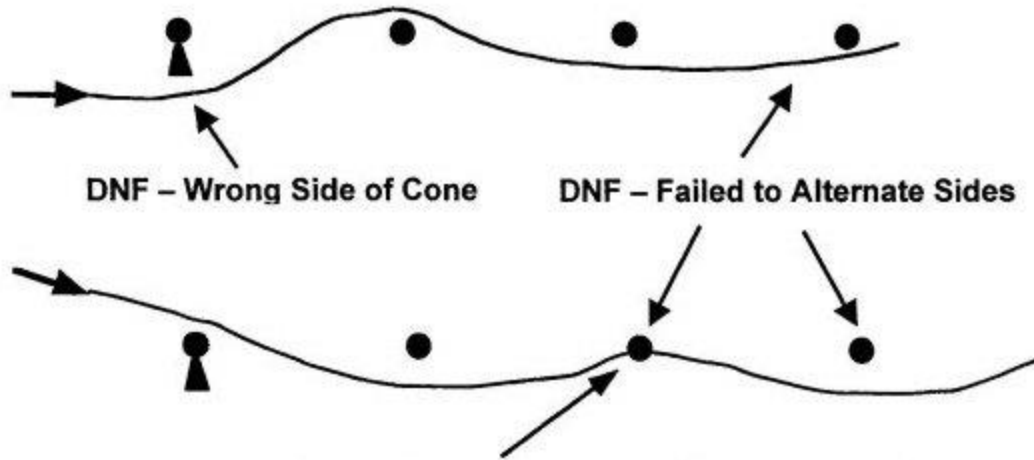


Understand the pylon rules.

If a pointer cone is hit but does not move out of the chalked box, it does not count as a negative point, (see below). But it needs to be reset.

If a car is off-course, and **passes on the wrong side of a cone**, this is a **DNF, (Did Not Finish)**.

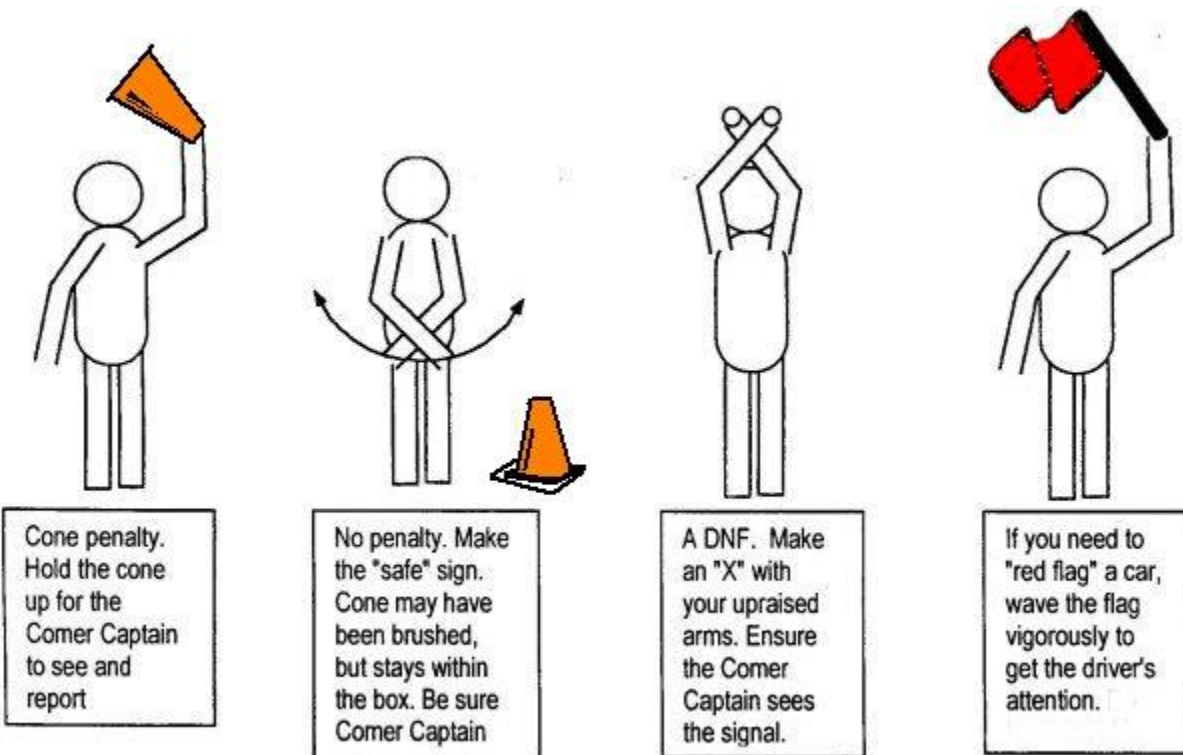
A DNF occurs in a slalom if the car enters the slalom on the wrong side of a "non-optional" slalom, or fails to alternate sides correctly.



If cone is hit, even though most of the car may have been on the "wrong" side, the cone penalty applies, not the DNF

Hold up both arms above your head, crossing your wrists, if a car goes on the wrong side of a designated cone. This is a DNF. Lower your arms once you get a wave of acknowledgement from the official. Hold up a dislodged cone (time penalty) above your so the timing official can see you. Put it back in place once you get a wave of acknowledgement from the official.

Another corner worker or official may shout to you about a cone they saw move in your area. If it is not a penalty, reset the cone and signal by waving your lowered arms back and forth (safe signal).



Get back to your station as soon as possible, another car will be coming through in as soon as 30 seconds. Always look for the next car and number on the track.

If you cannot clearly identify the car's number, please report this.

Be prepared for exposure to sun/rain, wind, heat/cold while on your station.

Always stay alert for unexpected pedestrians and vehicles.

Be aware if any car suddenly stops due to something they have seen. Report immediately!

Always report any fluid that might be leaking from any car!

Don'ts

Do not use a cell phone during a run! If you see any other worker doing this, please tell them or report them.

Do not photograph a car heading your way while on your station.

Do not sit and relax and do not wander away from your post. Avoid using chairs that are low and hard to get out of.

Do not turn your back on cars on course. Safety First!

Do not red flag a car unless instructed to do so by the radio person **or** if it is an emergency. **However, if in doubt, always err on the side of safety!**

Do not litter.

Do not pick up hot parts dropped on course because of risk of burns.

Car set-up Tips

Keeping things inexpensive, we'll only talk about things you can do for free, or under \$50. After a while, you may want to put more go-fast goodies on your car, but make sure to read the rule book, and stay legal for your category.

But also keep in mind, at this point you can go faster sooner by working on the driver instead of the car. See the course-walking and driving tips!

Event Preparation

Tires: You've already read that you should put an extra 5 to 10 psi in your tires. The reason for this is to keep your tires from rolling under during hard cornering. But how much is too much? Put thick sidewalk chalk on the edges of your tire, typically in three places around the diameter, and

you can see how far over the tire was going during your runs. Bleed out a little if the chalk is still showing on the tread, or add a little more if the chalk has been worn off down the sidewall. The line of worn chalk to remaining chalk should be right at the corner of the tread and sidewall. Keep notes on how many PSI you ran, and where the chalk line was, for your next event.

Remember that as you get better and corner harder, you'll need more air to compensate, so keep using the chalk at every event.

Driver Restraint: In order to have good control in driving, you, the driver, have got to stay put. So make sure your seat belt is tight and firm. Some people like to tug hard (fast) on the shoulder strap to engage the lock on the reel.

Driver Seating Location: Most experienced drivers will agree that the best place for your seat - to give you the best control - is seat forward far enough to have your legs slightly bent and not hitting the dash and allows you to use the clutch and/or brake. The seat-back should be more upright to a position that allows you to rest your wrists on the steering wheel when your shoulders are firmly against the seat. But allow for room for your helmet. Some either put the top down or remove the top and secure it in the trunk. But always be sure you can see your gauges especially tack and oil.

This seating position allows you to run the full range of steering inputs and foot motion without stretching or moving in your seat, and can have a huge impact on your driving skill.

Course Walking Tips

"You must be able to keep track of the course in your head. If you can't, then you can't drive it to its fullest potential". Josh Sirota

That quote is worth five seconds to a novice. Knowing how to walk the course is the most important step in being competitive and staying "ahead" of the course. Usually, you'll want to walk the course *at least* three times.

Step 1) Walk the course. Your first walk will be to get the general layout, and is often a social walk. Now get away from friends and walk the course alone, concentrating on memorizing the layout. Think of it in sections, with key cones marking the turns, such as:

- start straight
- slalom (enter on right)
- decreasing sweeper to the left
- "little snake" then "big snake"
- right-hand curve (look for three pointers)
- "thread the needle section"
- tight right, then tight left
- finish

Stop every now and then and run through the course in your head, from the beginning to where you are. Get down - the course looks different from a seated position. This will give you a better picture of what the course will look like at speed.

Pace off the distance between cones in a slalom. Some course designers vary the distance, and it's good to know before you arrive whether you will have to vary your speed in a slalom. Take a notepad if you like, and make notes such as pavement changes, camber change, bumps, sand, etc.

Make a mental note to yourself (or write it down) how far ahead you will be looking. When I walk the course, I say to myself, "OK, when I am *here* I will be looking *there*" (This will help you to remember to look ahead while you are driving) "*Repeat this step over and over until the picture is perfect.*" Andy Hollis - Four-time SCCA Pro Solo and Solo II National Champ.

How do you know if the picture is perfect? Sit down by your car and try to draw the course on a blank piece of paper. Include the key cones you want to recognize while you drive. If you can't draw the course, you will want to walk it again. Once you leave the start line in your car, you should not be spending any time figuring out where the course is.

Step 2) Plan the course. (Do this *while* walking the course again) Now decide exactly how you want to drive the course. Driving the course perfectly involves two things; coming up with the correct plan, and executing the plan correctly. If you don't have a plan, you can't possibly know where you didn't execute it correctly. It's hard to know if you did this step correctly, but step 4 is something you can work on.

The plan involves the line you will take through the cones - the quickest way through. Note, I didn't say shortest. Think about the characteristics of your car; does it corner better than it accelerates, or the other way around? That will tell you whether to slow down so you can get through the corner in control and get on the throttle as soon as possible, or try to carry speed through to keep up the revs.

Don't forget to plan where you will be looking. There is no need to memorize *every* cone on the course, only the ones you plan to be near, the "important" ones. Look from one important cone to the next in your plan.

Step 3) In Grid. Before you run, while you are in grid, go over the course again several times in your head, executing the plan you made before.



Step 4) After the run. Sit in your car and go over your run. Figure out where you didn't execute the plan. If the plan was to be near a particular cone, and you were five feet from it, then you didn't execute the plan correctly, and a red light should have gone off in your head. Maybe you need to adjust the plan because you were going too fast in the slow parts. Decide at this point whether your next run needs to be a better execution of the plan, or a modification of the plan.

Basically, don't use the car as an excuse, you will see a big difference in your times when you drive a course that never surprised you.

Driving Tips

Seat time, seat time, seat time. That's the best way to go faster. They say, "Before you fix the car, fix the driver". That's because there's so many techniques to improve your driving, it takes seat time to learn them all, but once you do, someone without those skills would have to spend a lot of money on their car to beat you, and probably still couldn't.

Here are a few techniques to get you started. Don't try to apply them all in your first run, you'll be too busy. But read through the whole list, then work at gaining these skills one at a time.

Launching. You've got several feet before you break the lights so you want to be accelerating as you pass through them. Avoid wheel spin. It wastes time and the novice staged directly behind you will be annoyed if you pepper her Corvette with road debris (She'll give you more room next time).

Look Ahead. I can't emphasize this enough. I repeat it out loud while I am driving. It's so easy to forget, but makes such a big impact on my driving. It all relates to hand-eye (and eye-foot) coordination. *Look* where you want your hands to drive you, and look far enough ahead to take advantage of the feedback. If you're looking at that outside cone that you're afraid you'll hit, well, you'll hit it. If you're looking ten feet in front of the bumper, the turns will keep surprising you. Imagine looking at your feet while you are running on foot! You won't be very coordinated, and you won't have a good sense of distance or speed. Same goes for driving hard corners as you do in autocross. Look ahead. You will be *astounded* at your performance the first time you remember to do this all the way through a course.

Slow Down to Go Fast. A common problem when you're starting out is trying to take the tight sections too fast, and not staying in control. I still remember finishing a run and saying, "Well, I didn't go very fast, but it sure was smooth," only to find out I'd gone faster by a full second! Just be patient in the slow spots. They're slow spots, after all.

Brake hard in corners. Go ahead, squeeze the brakes *hard*. There's no morning coffee on your dashboard, or eggs in the front seat. Once you decide to slow down for the corner, don't waste any time. If you find yourself at a crawl and you're not at the corner yet, why, you've just found out that you can brake later. Locking up your tires will not make you stop faster, so squeeze the brakes and let them do the work, not your tires.

Adhesion. Don't ask too much of your tires. For any tire/pavement pair, there's only a certain amount of traction. We'll call that 100% traction. You can use up that traction with your throttle, your brakes or your steering wheel. So if you're going into a corner, using 100% of your traction to make the turn, what happens when you ask for more traction by applying the brakes? Either you won't brake or you won't turn. Or both. Same goes for accelerating out of a corner. Ease in the throttle as you ease out of the turn. *So use full throttle and full braking only in a straight line.*



This goes back to slowing down to go faster, and brings us to...

Smooth Inputs. You may have noticed that I used the phrases "squeeze the brakes" and "ease in the throttle". This is where you have to change your mind-set about inputs to controlling your car. You need to convince yourself that you can make your car respond better by squeezing the brakes hard instead of standing on the brakes, by rolling in the throttle rapidly instead of stomping on the gas, by turning the wheel quickly instead of cranking it around. Subtle, but it will show up in how often your car is in control instead of scrubbing off speed pushing around a corner. And it will take a lot of practice to become second nature.

Shift near redline. On the street, we don't usually shift near redline (high rpms). But in autocross, you want to be making the most of the power available to you. You'll learn to hear the motor as you drive and stay in a low gear longer. Most courses will be in second gear for stock cars. If you're shifting to third, you're shifting too soon, and giving up power (ask local drivers if this is true in your region).

Launch at a High RPM. Each car varies but try to start at higher rpms than you're used to. Don't "dump" the clutch, or you'll find your wheels spinning. Let it out rapidly and find the right rpms to maintain traction. Higher horsepower cars (Z06's and stick shifts) will want to use lower rpms than less powerful cars or ones with automatic transmissions.

Squealing Tires. Bottom line... If your tires are **YELLING** at you, it's because you are adding too much power, braking too hard, and turning too late trying to make a corner. On TV it makes cars sound like they are going fast, but in your case, you are going too slow because you are trying to go too fast and scrubbing off your momentum. Slow it down, set the turns up earlier, smooth the drive out of the corners and you'll decrease your times (plus add a lot more life to your tires).

Don't worry about the blinkers, wipers or horn. You're bound to hit them as you drive. Don't let it throw you. We've all done it!

More, Later... There are many more techniques for getting better times but start with the ones listed above. After you've learned them, you'll be ready to buy a book on autocrossing (see Recommended Reading) or attend a driver's school and learn the advanced techniques of heel/toe, shuffle steer, late apex, and more. Now you are ready to read this:

Go to as many events as you can. Go to the ones with the toughest competition - winning something local is fun but losing to someone fast will probably teach you more. Attend drivers' schools in your area, or travel to another region. On off weekends, you might try an SCCA event or show up at a non-Corvette club event. You won't get their points but you'll gain experience and you might surprise your buddies with a quicker time at the next NCCC autocross.

Always remember to have fun, even when you are being stomped by some national hot shoe. You'll never stop learning - the best drivers will tell you this still applies after ten or twenty years! Remember, *seat-time, seat-time, seat-time*. Nothing will make you go faster sooner. And nothing is less expensive in improving your times.

Autocross Etiquette

Autocross is a social sport, and most drivers are happy to give you advice and critique your runs. Ask someone with a similar car if you may follow them through a course walk. Maybe they'll even think aloud for you (don't do too much talking yourself, or you will be making them walk again). Ask if you can ride with them. If you're not sure when to line up, go ahead and ask. Ask someone to look at the chalk on your tires to see whether you need more air. Ask someone to watch your run if they have time, and tell you what needs changing. They'll be glad to.

There are a few **bad times to ask for advice**, though. Here's a quick list:

- When they are walking the course. (They're trying to memorize it.)
- When they are staring into space or have their eyes closed, they're probably going over their run or plan.
- When they are in grid. They are only thinking about the course.

Sometimes events will conspire to keep a good driver from competing. It may be a broken car, it may be an injury that prevents them from being able to change tires. *This is your chance!* Offer that driver a ride as ace-driver in your car. You'll get a second opinion on how to run your car, see how fast it will really go (giving you a target and a lack of an excuse of why you were slow), and the co-driver will be able to stay in the points race for his or her class. So what if they use up \$20 worth of tires. Not a bad price for a private instructor all day!

It's OK to borrow someone's helmet or use their battery powered compressor your first time out, but don't abuse your fellow competitors helpfulness in helping you get started in the sport . Try to get your [Snell Approved helmet on order](#) and your own tools as soon as possible. You'll then be repaying the favor to the next novice.

Try to help out. There is more work to be done than the mandatory course-work. This is an all-volunteer organization, so help is always appreciated. Luckily, this also puts you in a position to talk to other drivers, because the veterans are helping out, too. If you share the work, they'll have more time to talk to you. Likewise, showing up early will help out the registration and tech crew, and give you more time to walk the course. Read the next section on how to help, if you're looking for ideas to lend a hand.

Everyone stays to help clean up the course and pit areas. Keeping the sites is important to everyone, so leave your pit area cleaner than you found it.

The awards and or trophy presentation is a continuation of the event, and people talk about the course or their cars or runs. It's nice to have everyone show up, to cheer the winners, even if you didn't get a trophy yourself.

And be sure to thank the organizers and workers that helped you to have a great day!

Corvette Competition Classes

As a member, you will have access to the official NCCC Rule Book. It will tell you about legal modifications, rules on re-runs, and many other topics. You may look through the region's copy to see what's there. The Link for the NCCC 2022 Rules is [HERE](#)...

ALL CLASSES HAVE MEN'S CLASS AND LADIES' (L in front) CLASS



FACTORY STOCK (S) CLASS - (pure stock no changes)

- CLASS CL – Classics 53 TO 62 (all run in one class)
- CLASS A - 1965 TO 1974 with 396, 427, or 454 CID (all run in one class)
- CLASS B - 1963 TO 1972 with 327 or 350 CID over 300 HP or LT-1 (all run in one class)
- CLASS C - 1962 TO 1980 (see NCCC Rulebook)
- CLASS D - 1971 TO 1982 (see NCCC Rulebook)
- CLASS E - 1984 TO 1991 (except ZR1)
- CLASS F - 1990 TO 1991 (see NCCC Rulebook)
- CLASS G - 1992 TO 1996 and all years of ZR1's
- CLASS H - 1997 TO 2004 (except Z06)
- CLASS J - 2001 TO 2004 (Z06's)
- CLASS K - 2005 to 2013 (except Z06)
- CLASS M – 2006 - 2014 and some Z06's
- CLASS MM – 2017 C7 Grand Sports
- CLASS N – 2009 to 2019 Z06, (1/15) and ZR1 (1/19)
- CLASS P – 2020 and newer Stingray Including Z51 – no Z06's

NOVICE (N) CLASS - 1953 to Today (all years run in same class)

NCCC Championship Points

The NCCC Championship Series is the system for year-end awards and trophies. Unlike SCCA competition, where the champion of each class is the driver with the highest number of points at the end of the season for that class, NCCC works on a total cumulative points system which includes points from autocrosses, rallies, funkhanas, car shows, fun runs, drag races, etc. This allows NCCC members to get points if they are not particularly interested in autocross.



Calculations for points and eligibility criteria are outlined in the current year's NCCC supplemental regulations. Usually, the points are awarded based on how you finish, or place, in your class, then added to the overall standings for Men or Women. You must be a member of the NCCC and be driving a Corvette to compete for Championship points. Support your local NCCC club and go to as many events as possible.

- Autocross Points: 1st = 9 points, 2nd = 7 pts, 3rd = 6 pts, 4th = 5pts, etc.
- Fastest Time of the Day (FTD) = 10 points
- Travel Points (over XXX miles traveled to an event) = Additional 2-4 points.
- Worker Points (those not competing) = 2 points
- Event Chair/Co-Chair (not competing) = 9 points
- Hosting Club (Sanctioned event) = 100 points

The top 15 men and top 15 ladies in cumulative championship points from sanctioned events will be recognized at the end of the season. The Championship trophies are awarded at the annual banquet held by the region, and all members are invited (encouraged!) to attend, whether receiving a trophy or not.



[If the locals are too slow, here's where to go to compete at the national level](#)

Recommended Reading

Secrets of Solo Racing by Henry A. Watts

How to Make Your Car Handle by Fred Puhn

Back to Reality

You've had a blast driving in the Autocross. The adrenaline was high, you're ready for another event. You can't wait to start improving your skills. But don't forget what you have learned.

Before you leave, adjust your tire pressures to recommended levels for street driving.

Stop by a local gas station to top off your tank. You might find other competitors that you can caravan with and have dinner on the way home. Bench racing is typically the theme at the table. Don't forget to check when and where the next Autocross will be held!

Driving in Autocross is a real thrill. But don't forget when you leave the course, that you're in traffic again. Take your new car control skills with you for emergencies and obey all road laws!

Remember, save your spirited driving for Autocross, where it's legal!

