

Corvette Club of Michigan

Autocross 101

Autocross:

A low speed race against the clock, usually held in a parking lot on a course defined by traffic cones. This type of competition rewards driving skills more than pure horsepower.

Autocrossing allows you to drive your Corvette at its limit in a safe, legal environment.

CCM holds autocrosses about once a month from April through October. There are also events held by other Corvette clubs and other sports car clubs around Michigan and surrounding states.

We have an extensive class system, based on the performance potential of all the different Corvettes that have been made over the years. Your '53 Blue Flame Six won't have to run against the latest Z06.

Getting ready:

Prepare your car by first cleaning out all the pop bottles and other debris that has been accumulating over the winter. Be sure to look under the seats – high G braking and turning will dislodge things you haven't seen in years. Stuff rolling around in the car is distracting at best – and potentially dangerous.

Although your car will undergo a technical inspection when you get to the event, you should do your own inspection first. Your competition handbook will show you what to look for – mostly regular maintenance items that you should be checking anyway. Autocross specific preparations for the day of the event include:

Add air to your tires – 40psi is a good place to start.

Add an extra ½ qt of oil – high rev, high G turns tend to move all the oil to one side of the crankcase and starving the engine of oil leads to bad things.

While actually running, turn off “traction control” (C4) or put “active handling” (C5) in competition mode or off.

Prepare yourself:

Wear comfortable clothing, including shoes that will stay on your feet and allow proper pedal feel – no sandals or high heels!

Bring your helmet – Snell '95 or newer. They are available at motorcycle shops around town. We have a couple of “loaner helmets”, but everyone can't be using them at the same time.

Bring your driver's license, registration, etc, as you will need them to register at the event.

Bring extra clothing for changing weather conditions. We generally run rain or shine.

At the Event:

Know where you're going. There should be a flyer with a map in your SlipStream.

Arrive early to give yourself plenty of time to register, put your car through tech, walk the course, etc. You don't want to feel rushed.

You will be asked to "work" a shift either before or after you run, so allow time in your day for that.

Basic Driving Tips:

Driving position: You can't drive well if you're not positioned properly in the car. People generally sit too far back from the wheel.

Sit in the car with your back pushed well into the seat back.

Adjust the seat fore & aft to allow your right foot to be able to rest on the floorboard *underneath* the brake pedal (automatic). If you have a manual transmission, your left knee should be bent when the clutch pedal is on the floor.

Now adjust the seatback angle so that your wrist will rest on the top of the steering wheel (12:00) while your back is firmly against the seat.

Put your seatbelt on, using the "cinch" feature if your car has it. Get it as tight as you can. It may help to move the seat back a little first – tighten the belts – then move the seat forward to your "driving" position. This gets it a little tighter.

While driving, your hands should be at roughly the 9:00 & 3:00 position. Keep both hands on the wheel. If you need to shift, move your hand to the shifter only long enough to perform the shift, then move it back to the wheel. Never steer with your hand "upside down" on the top of the wheel (even on the street).

Keep your left foot flat on the floor except when actually shifting.

Vision: Now that you are seated properly, you need to know where to go. You will have the opportunity to walk through the course – several times – if possible. It's important to get the basic layout of the course committed to memory so you can concentrate on going fast when the time comes, instead of trying to figure out where to go.

While driving – always "look where you want to go". People tend to look at the steering wheel instead of the horizon. If you focus on the course ahead, you'll find that the car will magically follow the right path. If you focus on the pylon ahead, chances are you'll hit it (a 2 second penalty).

Always look at the next course element, as the proper car position in the turn you're in may depend on where you need to be for the next turn.

Keep your hands & feet busy: Generally, in autocrossing, you should always be at near maximum acceleration, braking, or turning – or some combination of the three. Coasting is a major waste of time – and time is the enemy!

Accelerating: While there's no need for a major burn-out when the light turns green, you do want to get away quickly. Corvettes have plenty of horsepower, so squeeze the trigger, rather than stand on it.

Braking: People tend to not brake hard enough. When approaching a turn, you should stay on the gas as long as possible, then stand on the brake pedal as hard as you can – you won't break it! You should be right on the verge of wheel lock-up or ABS intervention. With ABS you can brake deeper into the turn (staying on the gas longer) because you can begin turning with the ABS active.

Turning: Turns are where you lose time – so you want to minimize the time spent turning. While walking the course you should determine which turns offer the most opportunity. Some turns are just going to be slow, so just make them as short as possible. Other turns – especially turns that lead to straights – allow you to be more creative. Basically you want to take the line through the turn that allows you to get back on the gas the soonest. You should be rolling into the gas as you're unwinding the steering wheel exiting the turn – smoothly!

Be smooth: Corvettes have such an abundance of horsepower, brakes, & cornering ability, that it's easy to go overboard. The trick is to use the car to the max, while maintaining a smooth style. Often, the drivers who look the slowest will actually turn the quickest times.

As a beginner, the hardest part is staying on course. You should walk the course several times, then when you get in the car – start somewhat slowly. As you gain confidence in the course, build up your speed. Remember – only your fastest run counts!

General Autocross Procedures:

We use a “traffic signal” at the start line. As you approach the light, it will first turn yellow, slowly go forward until it turns red, then stop. When it's safe to start, the light will turn green. Leave promptly, however your time doesn't start until you pass through the beams a few feet past the start line.

Our club and most Detroit area clubs use red cones to define the right side of the course, and yellow cones on the left. This helps keep you “on course”.

When you get to the finish line, quickly bring your car down to a slow, safe speed, then continue to the pits or back to the start line.

We usually allow you to make “hot” laps bringing you right back to the start line, or you can take a break or make car adjustments and use the “rerun” line to make the rest of your runs.

While in the starting grid watch staging and start-line workers for signals to move.

While on the course watch for “red flag” conditions. If you are red flagged, bring your car quickly to a stop – then proceed when instructed by corner workers. You will get another run to make up for the flag.

Your times, as well as those of your competitors will be posted on the club trailer.

Help out where you can – it takes a lot of work to put these events on.

Have Fun! Driving a car at its limit is major fun. You will also be a much better driver in everyday life. Knowing what your car is capable of will offer you more options in time of emergency.