



The —Black —Crack —Report



The addiction you don't want to fight

Issue 13, February 2010

The 10/10ths Event Swap Meet Page

I have had a couple of our great drivers ask if I could add a page to the website where drivers can post items for sale or wanted items for specific events they will be attending. I know I usually have things to sell, many of them brand new in the box so I put the page together and I hope our drivers will find it of use.

It can be found at:

http://www.1010drive.citymax.com/Swap_Meet.html

I also added it as menu item on the left side of the 10/10ths Home Page. It is the 3rd menu choice from the top. I appreciate the suggestions I get and if you have something you would like to suggest for our events, please don't hesitate to give me a call or email me.



Our Next 2 Events :

- VIR Full Course March 15th & 16th, 2010 Only 6 weeks away !!!
- Putnam Park April 3rd, 2010 Only 8 weeks away !!

Registration for both events is open at www.1010thsmotorsports.com



The 10/10ths HPDE School

Most of you know I am a staunch believer in teaching and learning this sport correctly from day one. Most promoters, including 10/10ths have some very capable and experienced instructors, especially 10/10ths ☺, but what I believe we can improve upon is the structure, content and logical progression of driver training. We will continue to have our track day instructors and

classroom sessions, but we are also putting a lot of effort into developing a well thought out "HPDE School" at which you can get some professional instruction, following a well designed course content and on track exercises, each building on the other. Most often, when you go to an event and request or are assigned an instructor, you don't know ahead of time what will be taught in the classroom or told on the track. It is also difficult to track your past classroom sessions and/or lessons learned as well, especially if going to events from various promoters throughout the year.

The HPDE School will improve the quality and learning experience of your track day event. Our goal at this point is to develop a Level 1 and a Level 2 School, much like has been done with Autocross. These Schools will have a very well defined format and sequence of learning sessions, both in the classroom and on the track. Students will have a full day of classroom and track time which takes you through a logical progression of information and skills. You will be able to track your progress and I guarantee you will be a better driver after just one week end.

We have a great deal of work to do on the development of this but I have some key folks on board that know how to do this and have done it before with Autocrossers, and with huge success.

We may be able to hold our first HPDE School event later this year but it depends on a lot of variables. I will keep you up to date on the progress of the development and please do not hesitate to email me or give me a call if you have suggestions.



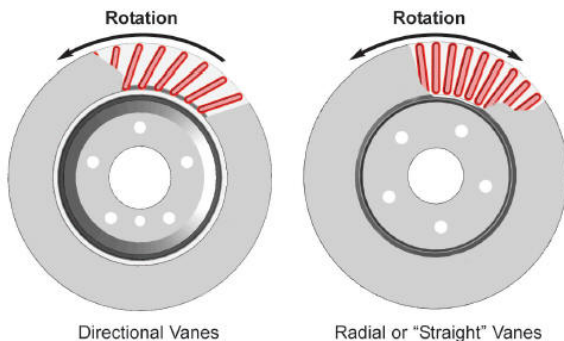
10/10ths Tech Corner

Installing and Using Plain, Slotted and/or Crossed Drilled Rotors.

Directional vs. Straight Vane Rotors

Most "normal" cars come with straight vane rotors, with internal cooling vanes that extend straight from the center of the rotor outward, like spokes on a wagon wheel. (See drawing on lower left) Although they don't cool as well as slanted vanes, they cost less and are "uni-directional" so you don't have to keep both left and right rotors.

Many track cars use rotors with slanted cooling vanes. These curved vanes pump more air through the rotors, resulting in improved cooling efficiency. Thus, there is a left and a right rotor. **When the directional rotors are properly installed, these internal vanes should lean toward the back of the car - as shown in the diagram.**



A message left on the 10/10ths Race Car when it was found to have the front rotors on backwards.

Plain rotors will normally be the least expensive.

I have put C-5 Brake brackets on my C-6 Corvette for the express purpose of buying cheaper, plain rotors vs the Z-51 crossed drilled rotors. They are about 75% cheaper per set, **BUT**, what I have found is you have to watch where the rotors were made. I have found rotors made in China to be much less durable than good ol American Made Rotors. This is not a political statement, just an observation of fact. I have been getting anywhere from 30 minutes to 2 hours of track time on the plain rotors made in China before they developed serious cracks. This is simply unacceptable. I have bought other plain rotors that have lasted much longer, and are still much less expensive than the cross drilled rotors. Shop around to get what works for you.



How do you know if you have a cracked rotor?

You will feel a very noticeable "thump" when applying the brakes. It will be very regular and the rate of the thump will increase with speed. Depending on the size of the crack, the thumping may be severe or slight, but it will be obvious that "something" is not quite right. ANYTIME you have that thought cross your mind, it is time to come into the pits and check things out. I would say that about 50% of the time, I notice it on the outlap as the rotor cracked when the car was sitting after a session. Uneven cooling is the major force at work in this case. Pay attention to the warning signs and act on them.

It is wise to always change your rotors in pairs, even if only one has cracked. This ensures even transfer of brake pad material to each rotor and can avoid having the car pull to one side. Also, if one rotor cracked, the other is probably not far behind.



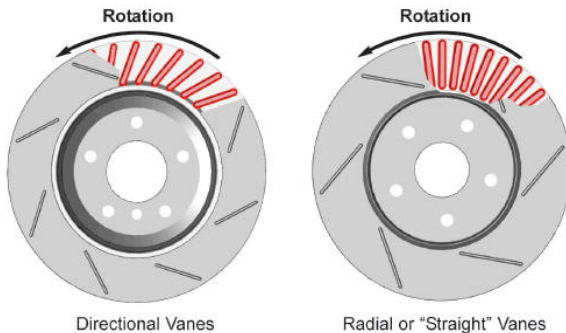
Slotted rotors

As with the plain rotors discussed above, the internal vanes should lean toward the back of the car.

The direction of the slots on the outside of the rotor do not dictate whether the rotor is a left or a right. .

Although you may think otherwise - don't use the slots to decide which side to mount the rotor. Pay attention to the internal cooling vanes.

For slotted rotors with straight internal cooling vanes, the manufacturers usually recommend that the slots face the rear of the car, just as the slanted vanes do.



Slotted rotors with slanted vanes.

Install with the slanted vanes facing towards the rear of the car.

Other things to consider with "slotted rotors"

There are "Open" and "Closed" slotted rotors.



OPEN Slotted Rotors actually have openings that extend through the rotor, within the boundaries of the slot. Some advantages are:

- Has the advantages of both drilled & slotted rotors
- Allows the disc to expand and contract and prevents the disc from cracking or warping
- Increasing cooling area and retains more friction surface
- Slots relieves thermal stress
- Slots are self cleaning and the pad build up will not clog the slots and are exhausted via the rotor edge keeping the disc surface clean
- Reduces brake pad dust buildup and keeps the wheel clean through vacuum effect



CLOSED Slotted Rotors do not extend into the interior of the rotor but are only about 50% depth into the rotor face. Some advantages are:

- Help remove heated gases
- Keeps remove brake dust from the rotor surface
 - Brake dust will eventually build up in the slot however.



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Drilled and/or Drilled and Slotted rotors

It is not possible to tell if a drilled rotor is installed properly, simply by observing the drill pattern. Different manufacturers use different patterns with spiral "arms" that appear to lean in either direction, regardless of the internal cooling fin orientation. As with slotted rotors, one **must** check the direction of the internal cooling vanes in order to determine the proper orientation of drilled rotors



*This is the Right Side of a C-6 Corvette.
What is wrong with this picture?*



Dimpled Rotors

Yes, there are even dimpled rotors. Many of the manufacturers market this as a design that gives the esthetic appearance of a drilled rotor. There are no real benefits to this design.



Some problems with drilled rotors..

1. Blank rotors that have had the holes drilled into them.
 - a. These tend to crack quickly under heavy use as the holes simply give the crack a starting place.
 - b. These rotors may not be balanced after drilling holes in them. This must be a very well defined and engineered process to ensure a balanced rotor.

Some things you can do to reduce the frequency of your rotors cracking.

1. ***DO NOT*** set the parking brake when you come in from a session !!
2. ***Utilize the "cool down" lap to do just that. Take it easy on the brakes so they can cool somewhat prior to coming into the pits.***
3. ***Try to park your car on a level surface so you can push it about a foot or so a few minutes after parking. This will move the section of rotor from under the brake pads to fresh air, thus promoting a more even cooling.***
4. ***Install them correctly.***
5. ***Add brake cooling ducts and hose to your brakes.***
6. ***DO NOT*** paint your calipers. This only holds more heat in.
7. ***Experiment with brake pad compounds to find what works best for you.***



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Guest Article

By: Greg Robb, Performance Racing Group

Preparation Part II

So you have decided what your goals are going to be in 2010. Right? You have come to a decision concerning time and money that will be expended, right? Now, what is lacking is the plan to take you where you want to go.

Driving skills: are you considering advanced driver training? Do it between now and mid-April. Do not let $\frac{1}{2}$ or $\frac{3}{4}$ of the year slip away before using your newly acquired skills. This will allow you to get the most from your efforts. For those of us living in the Northeast and Midwest, what better reason to get a few days respite from the winter weather?

Travel plans: now you have set your schedule of events make your travel plans. For the most part, track day guys and club racers drive to the events. So air travel is not an issue, but lodging is! Many venues have limited hotel space. You also do not know what other events that may attract other travelers to you the same area. You could find yourself staying 30 miles from the track. No fun! So make you reservations now. Keep your confirmation info, you can always cancel later.

Transport: many track day participants and all club racers transport their cars in trailers. Transport equipment is one area that is highly neglected - the trailer in particular. Almost everyone from the SCCA regional competitor to the professional racing teams has a trailer story- usually, none of them good, and some even tragic. So get the truck serviced, and the trailer needs work, as well. Check all the lights and electric brakes, as the wiring on these things is not impressive. Wheel bearings are the most neglected item, and tires are the most trouble. Make sure the tires are in good condition and you know the proper load rating. Most tag trailers are made quite cheaply and *do not last forever*. Watch for rippled skins, loose fasteners, sheared rivets, floors coming up and doors not fitting well.

Then there is the law. People with duallies hauling gooseneck or fifth-wheel trailers need to make sure you are within the law of any state that you are traveling through. I have been on the losing end of this myself. The totorhome crowd needs to watch, as well. You think you are getting away with something, do you? Think again. As government tries to satisfy its' insatiable hunger for tax dollars, the totorhome user is a prime target for increased government revenue.

For those of you who are going to have engine built or paintwork done, get it in now. Do not procrastinate, these things take time. Engine builders and painters are equals when it comes to slowing down the project. So get it in early. Remember one thing, quality is time consuming and expensive, *which is the way it should be*.

The Car: What plans do you have for it? For you track days guys, brake and suspension upgrades, induction system, body kits, what else? Get on shopping for them now. No vendor can keep everything on the shelf (*even if they say they can*). Some imported brands, such as Brembo or Spal, may not even have it in the country. I have that problem right now with Pagid brake pads. Assess what you need and get it in the process. When you are ready to do the job, you will have it right there. For those who have others do their work, get it to them soon. Right now they are probably slow and can get it done pretty quickly. If you want to wait until the last minute, you could be the loser. For the club racers, get started. You have several months to be completely ready. No excuses at the 1st race. Remember, it is about driving, making you and your car faster. Major projects at the event are *expensive, time consuming and not much fun*. If you do it right, you will save time and money. Your evenings will spent with friends, steaks and cold beer (*as they should be*)!

Spare parts and consumables: think about everything and anything that brought the project to a halt. Time wasted is money wasted. Sort through what you have. If it is used, give it careful scrutiny. If necessary, *throw it out* (I know, hard to do for some of you). Plan in advance of buying what you need. If possible, organize group buys. At Performance Racing Group we would be pleased to assist you with this. Remember this. *Buying at the track* (assuming you can) *is expensive and rightly so*.

You have heard all I can say on this, except for one thing. Most failures occur **before you get to the track**. They only show themselves (sometimes to your embarrassment) when you are there.



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10/10ths 2010 Schedule

This is our current 2010 schedule. I hope to see you at the track soon.

- | | | |
|---|--|---------------------|
| • <u>Virginia International Raceway</u> | <u>March 15th & 16th</u> | <u>(Mon / Tues)</u> |
| • <u>Putnam Park</u> | <u>April 3rd</u> | <u>(Saturday)</u> |
| • <u>Putnam Park</u> | <u>May 8th & 9th</u> | <u>(Sat / Sun)</u> |
| • <u>Autobahn</u> | <u>June 19th & 20th</u> | <u>(Sat / Sun)</u> |
| • <u>Putnam Park</u> | <u>Aug 28th & 29th</u> | <u>(Sat / Sun)</u> |
| • <u>Putnam Park</u> | <u>Oct 23rd & 24th</u> | <u>(Sat / Sun)</u> |

We are able to get started much earlier this year than in 09 and I am hoping for the same perfect weather we had at all our events last year. I have not given up on Mid-Ohio and will still be working on an event there.

Registration is OPEN for all these events on the 10/10ths webpage at:
http://www.1010thsmotorsports.com/2010_Schedules.html

We will be running the same 3 group format with:

- Novice
- Intermediate
- Advanced

The Advanced group will most certainly again get to experience the training style, rolling race starts as this was a huge success in 2009, both for the fun factor and the learning / experience aspect. We have a couple drivers who have already started converting their cars to full race mode as a result of their 10/10ths experience.



Check Out the New 10/10ths Hat



The new 10/10ths Hat is in stock and available. This one size fits all hat is made with some great stitching and simply looks fantastic. You can find it on the 10/10ths website along with our cool T-Shirts.





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2010 10/10ths Alumni Program

I have extended the deadline to sign up as a 10/10ths Alumni. It is a great way to save a few \$\$ if you plan to do two or more events or even a single 2 day event by receiving 10% off all registration fees. You can register as a 10/10ths Alumni at: .

http://www.1010thsmotorsports.com/2009_Savings.html Available until March 14th, 2010

You Can Help 10/10ths Motorsports !

I hope you enjoy the monthly 10/10ths Motorsports Newsletter. Please feel free to forward this to any of your friends and point them to the 10/10ths Motorsports website. I believe word of mouth advertising is the best route to introduce both new drivers and experienced drivers to the 10/10ths Motorsports events. For those that have come out to the events, Thank You Very Much and I look forward to seeing you again.

My Favorite 2009 Photo



If you see this guy running behind you down the straight, gaining ground, you might want to think about taking up basket weaving !!!

This method does save on gas, tires and brakes however.



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<http://www.forgeline.com>

Take a look at the great Forgeline Wheels on the 10/10ths Race Car at our next event.



<http://www.hawkperformance.com>



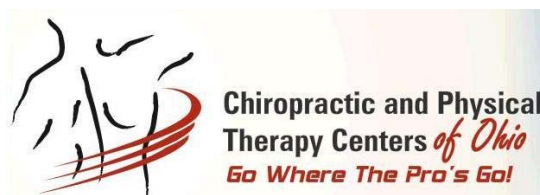
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