

## **Autocrossing 5 Mid-Engined Porsches by Ed Fisher Jr.**

In the span of two seasons, I scored co-drives in several Boxsters and Caymans at local autocross events. I was in between nationally competitive cars and wanted to find out if a mid-engined Porsche might be my next autocross tool. In the end, I bought a 6th generation Corvette after it was moved down from A-Street to B-Street. When pandemic prices abate I may yet own one of these cars.

The five cars, in the order I drove them, were a 2008 Cayman, a 2005 Boxster, a 2008 Cayman S, a 2011 Cayman, and a 2019 Cayman GTS.

The relevant specs are:

-2008 (987.1) Cayman, 2.7L, manual trans, stiffer front sway bar, aftermarket struts and stock springs, autocross alignment, near-dead Bridgestone RE71R tires (I think they were 255/285) on 8.5" & 10" rims, competing in B-Street.

-2005 (987.1) Boxster, 2.7L, manual trans, all stock, autocross alignment (of dubious pedigree) well-used 245/275 Hoosier A7 tires on 8" & 9" rims, competing in A-Street-Prepared just because the owner wanted to try R-comp tires.

-2008 (987.1) Cayman S, 3.4L, manual trans, all stock, autocross alignment, 235 Michelin Pilot Sport tires on an 8" rim in front and 265 Falken RT660 tires on a 9" rim in the rear, competing in B-Street.

-2011 (987.2) Cayman, 2.9L, manual trans, Bilstein B8 replacement struts (w/stock springs), stiffer front sway bar, autocross alignment, 245/275 Falken RT660 tires on 8.5" and 10" rims, competing in B-Street.

-2019 (718) Cayman GTS, 2.5L turbo, manual trans, PASM, Sport-Chrono, track alignment, 235/265 Michelin Pilot 4S tires on 8.5" and 10.5" rims, competing in Super-Street.

### 2008 Cayman

I drove this car in one event for eight runs in the warm and dry. It had gone through several autocross owners, at least one who had the knowledge to set it up right. It was as sharp as a scalpel, transitioned beautifully, did not push excessively and was held back only by the old tires and low-torque engine. Luckily it was a very tight, super-transitiony course that day with little place to use much power, so I had exactly the right tool for the job and I knew it before the first run. Even so, the start was a straight-up drag race up through first gear and half of second. With the 245hp engine, it seemed like it took forever, coming from my C5. After the four morning runs, I was top PAX of 61 drivers. In the afternoon I was eclipsed only by a soon-to-be national champ in an A-Street Corvette. Those eight morning runs (with co-driver) seemed to kill the tires once and for all. I was unable to match my morning times in the afternoon, nor was the owner. This car showed me how capable the lightweight, big-tired base Cayman can be. On the right course, anyway.

### 2005 Boxster

I drove this car in three events for a total of 16 runs, some of which were wet. This car handled very well, felt usefully lighter than the next three cars and did not push. This was surprising and I half-suspect that some previous owner had done something to create this situation, or it could just as easily be a wonky alignment like some toe-out in the rear. (The present owner thinks the suspension is stock and I could not see anything non-stock when I examined it in my garage.)

With Porsche Stability Management turned off this car actually tended to oversteer at the limit, so I had to be careful with it at first. Braking was good as was transition speed, though nothing great in spite of the mid-engined design, I was a little surprised to discover. I credit the aftermarket struts and stiffer FSB on the 2008 Cayman (above) for its better transition speed as compared to this car. Being a non-S, everything (springs, shocks and bushings) is probably relatively soft in typical Porsche fashion, but that means excellent grip on our bumpy lot. The 2.7L motor is not torquey. Pulling off slow corners was painful.

Thanks to multiple events I got comfortable to where I could really throw this car around, slippin' and slidin' even in the wet. It was great fun with the R-comp grip, especially in sections where you can keep the speed up. If this car were in C-Street,

I might very well run it even though no way it can take the Mazda ND2 MX-5. It's a much more comfortable and practical car than the MX-5.

The owner (we rode with each other on some runs in each event) was amazed that it was possible to slide the car around, even in the wet on R-comps, and not spin with PSM off. He had developed an almost comical ability (always leaving PSM on, wet or dry) to approach each apex cone way too shallow and fast, wildly throw the car into the turn and allow the stability control to figure out how to prevent a spin. The apex he made for each corner was, therefore, about 15 yards beyond the theoretically correct location. This did not bother him at all! Once PSM had done its magic, he'd go on to the next corner and do the same thing over again. When I first rode with him, I couldn't stop laughing. It was actually half-fast. Almost. The car was not competitive in ASP or on PAX, being simply a stock car on R-comps, like the old days of Stock classing before Street.

### 2008 Cayman S

I was in this car for one event for five runs in the warm and dry. Falken RT660 tires for the front were on back-order so we were running on Michelins with new Falkens in the rear. Slightly sharper handling than the 2005 Boxster, probably due to stiffer springs and bushings on the S model, but it was limited by a push that was easy to provoke on either corner entry or exit, probably exaggerated by the front to rear tire mismatch. Somewhat more torque than the base models, but of limited usefulness in this case due to the corner exit push.

Transition speed was lacking. Could that be down to the relatively narrow Michelins in front instead of the wider Hoosiers on the 2005? I guess so. The 3.4L motor still lacks low-end torque coming off really slow corners but feels adequate in the mid-range. This car needed a thicker front sway bar, wider wheels and better front tires, and a more extreme alignment, so it was not representative of what it could be as an autocross machine. I was faster than the owner but got pounded in the overall standings.

### 2011 Cayman

In the left seat in one event for eight runs in the dry, cool to warm conditions. This car was a well-prepped example for B-Street, though without the ultra-rare LSD. (I doubt it needs it.)

Handling was sharp, grip was good, transition speed good, could provoke push if you tried hard enough, but corner exit behavior was very nice. Torque is still lacking with the 2.9 and not great gearing (by this time Porsche was putting in their too-high second gears, for some unfathomable, fun-killing reason in their "fun" car) though significantly improved from the older 2.7. I had raced against this car and owner several times in B-Street at regionals against my full-prep C5 and we were always very close. I think he's one of those rare fast guys who's never been to a national event. (He has a Lemons team and for all I know he's done hundreds of regional autocrosses.) We leapfrogged each other every run this day as conditions warmed. I lost to him by a small margin in the end. We were both top 10 PAX at a smallish event.

I think in B-Street I might rather have this 987.2 non-S than a 987.1S, especially if I factor in how much nicer the 2nd-gen cars are in general and how bullet-proof the non-direct-injected 2.9L engine has proven to be, but my vision may be clouded by the unprepared 987.1S I drove. I once saw a unicorn 987.2 non-S car for sale, all the right autocross options including LSD and none of the wrong options. For all I know it was the only one made, having been specified by a buyer who wanted the most track-worthy, non-S car possible, for some strange reason. (Maybe he didn't trust direct-injection.)

### 2019 718 Cayman GTS

I drove this car in one event for six runs in the dry. This was one of the more difficult cars to autocross I've driven, entirely because of the turbo-lag at low rpm in 2nd. It's quite horrible, even with the variable-geometry turbo. Then, when the huge torque finally comes in (usually so late it's at the wrong time) it hits like a 2-by-4 to the back of the head and there's no telling where you end up. This is a **very** quick car from corner to corner if the motor is on boost.

In all fairness, the owner was definitely better at throttle modulation than I, able to often settle for a smaller amount of boost even though more would have been usable but not practically achievable. Maybe I could eventually master it, though I can't see myself ever warming to it. The owner says that on the track (where he spends the majority of his time) the lag is much less noticeable because the motor is higher in the rpm range even in the slowest corners. He was amused at my frustration.

This car was clearly the best handler of the five, probably because it was lower, with stiffer springs and bushings and was a later generation chassis. Porsche always continuously improves their models. This car also remained distressingly pushy, in spite of dialing in all the camber possible in the front.

Why, Porsche, why? Why do you feel the necessity to save us from ourselves even in a GTS model, making it impossible to have a sports car that's balanced at the limit without resorting to artificially degrading grip at one end or replacing expensive suspension components? If Chevrolet can give us the adjustability needed in their sports car, why can't you? Is it because the mid-engined design is too easy to spin at the limit for the typical driver so you must enforce a *plow, baby, plow* at all costs rule?

We were limited by the marginal grip of the Michelins in the cold of morning, but the 4S tires improved tremendously in the warm afternoon with two drivers. Once warm, they were really not far off the Falken RT660 in my estimation. It was an enjoyable car to autocross, in spite of the tendency to push, excepting the awful turbo dynamics. On a high-speed but transitiony course with no really slow corners this car might very well be a match for the C6Z06 in A-Street. But one slow corner and you give away a half-second, easy. (I can't imagine trying to campaign a base 718 with the non-variable venturi turbo in A-Street... talk about tilting at windmills!)

After driving this car, I have even more respect for Rachel Baker's Super-Street win in a 718 GTS at Bristol Tour in 2020 over Foley, a national champion, in a Porsche GT3. I was working course during that heat and she was really driving that thing smoothly, if on a bigger, faster course than I had. Still, it was something I

could not do during this first event in the car with some tight corners and maybe never could do. Yes, I'm definitely spoiled by the instant, linear torque of a big naturally aspirated motor. I bet the later 4-liter naturally aspirated motor they put in this chassis is a revelation.

### Summary

-I think that any of the first four cars can be made into a very pleasurable autocross car with proper attention to and knowledge of setup detail. In Street, where more front camber is not available, probably all will tend to pushiness, less you intentionally degrade rear grip, and all will therefore be hard on front tires given the paltry one degree of negative camber available. Maybe testing with a very small amount of toe-out in the rear could produce the best compromise for a skilled driver. Or maybe replacing the rear anti-sway bar with an adjustable unit instead of the front (only one or the other can be replaced in Street class) could be the ticket to balanced handling and reduced roll.

-The turbo GTS will often be frustrating on the autocross course, I think, due to the power characteristics. If it were well-classed maybe we'd learn to live with it in the interest of winning, but it's not well-classed, so why bother? For contrast, I've done some autocrossing in a Mazadaspeed Miata in BSP where class rules limit it to the small, old-school, stock turbo. It has less than 2/3rds as much power but is such a better autocross engine due to the negligible turbo lag given the other modifications that are legal in that class that help it to spool a little faster. (I still don't care for the non-linear torque curve.) That car is 600lbs lighter, I admit.

-None of these cars can hold a candle to the transitional ability of a Mazda MX-5 ND in spite of the mid-engined design. The Mazda is just so much lighter. They do change direction faster than fifth and sixth generation Corvettes and that's fun.

-In my totally subjective opinion none of these cars brake as well as the 2011 base C6 Corvette (non-Z51) on Falken RT660s I drove just after the GTS, except maybe the GTS. I really don't know why this should be. Seems like they should brake better given the weight distribution. Maybe it's down to pad differences, but braking didn't seem to be as controllable or direct as the Corvette. C5 and C6 base brakes are, admittedly, marginal on a racetrack in the hands of a decently fast

driver. They just don't have the heat capacity to take lap after lap of hard driving on a course that's tough on brakes. Corvette track rats must upgrade at least the fronts, but for autocross, the Corvette brakes are fine.

Porsche brakes typically are much better on-track in my experience and do not require upgrading on a stock or near-stock car for track-days, even in the hands of a fast driver, though we must recognize the horsepower differences. The GTS I drove had full-race pads that were high-torque and quick to bite when warm but with poor modulation characteristics. It was therefore not optimum for autocross, though we were sure to drag the brakes on the way to the start so that we began each run on consistently warm pads and rotors. I think on a softer, less radical pad it would have been fine and a match for the Corvettes. The 2011 Cayman had performance pads, but not full race, which should have been perfect for autocross. It had the same front rim width as the C6 Corvette and the same tire, with less camber and less weight in front, yet it didn't brake as well. The other Porsches were on stock pads. Their braking was nothing to write home about either.

I admit that I don't understand this. I was consistently slightly disappointed in the autocross braking from the first to the last of these five cars. I suspect that it had nothing to do with the brakes and more to do with soft springs and bushings. Possibly the lower polar moment also makes the cars feel less settled under braking as compared to the high-polar moment Corvette, in which case the issue I have has nothing to do with brakes at all.

-If the first four cars in the list above were in C-Street, I don't think they could win against the ND2 very often, though it would be great fun to try. Performance-wise the GTS is probably a B-Street car, able to hold its own against the M2 and Supra, probably beat them more often than not. I don't think it could win very often in A-Street, much less in Super-Street where it is presently classed, but Rachel Baker did it at least once, so what do I know?

-As street cars, any of these would be excellent and fun cars to own. I think they're designed to be tremendously rewarding at 90% effort on a twisty road. I certainly understand that design focus from a business standpoint. I never drive more than 80% to 90% on any public road and I remember to this day how astounded I was

by the first 1999 Boxster I test-drove. (This was before I started autocrossing.) I had test-driven the new, redesigned 2003 Honda Accord Coupe off the showroom floor only an hour before. It was getting rave reviews for its handling. It drove like a *school bus* compared to the Boxster.

Only when pushed to the limits of traction do the shortcomings of these cars manifest, but what mass-produced sports car is any different? Certainly, both my fifth and sixth generation Corvettes were much worse cars at 90% as they came from the factory, especially the C5 on those early run-flat tires. I remember when, intending to sell it, I once returned the C5 back to near-stock, including the original shocks that had only 13k miles on them, after autocrossing it fully prepped for B-Street for several years on expensive, specially valved dampers. It felt shockingly bad even though it was not on run-flats any longer.\*

\*When I did finally sell the car, it was aligned well on Koni shocks, had a moderate front bar and had Z06 titanium mufflers with a by-pass mod that made it sound killer without being very loud. It was a much better-driving car at that point than stock.