



Pineview Challenge Cup

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Pineview Challenge Cup

2023 Season

REV: 4/22/2023

The intent of this time attack series is to provide a “run what you bring” competition for any car, on any tire. All cars are evaluated on pounds, horsepower, and tires. While other factors are important, we want to keep the rules simple, and provide competitors with the flexibility of building and racing whatever car they want. That spirit of inclusion extends to the drivers, with classes for both highly competitive and casual racers.

There are many changes in the rules this year, the highlights include the following:

- The Pineview Cup classing formula is still used to determine a car’s performance level, but we won’t use that to place cars into classes. Instead, we assign a performance index number (PIN), similar to the PAX system in autocross.
- There are two classes, Challenge Cup and Clubman, plus a Masters division (65+).
- On-track sessions are no longer grouped by class, but by lap time. Sessions run 15 minutes, and you can set your fast lap at any time in that session.
- There is a new points system: 10 pts for 1st, 9 pts for 2nd, and so on.
- Tire list has been updated with new tires and points.

1. General rules

- The event *series* is open to members and track pass holders. Non-member/Guests may enter for 1 event, but need a member sponsor. The club can assign a member sponsor, if needed. The final race is for members and track pass competitors only.
- Race Direction may change the course configuration (the use of bypasses), and/or specify a counterclockwise direction at any event.
- There is a new [sign-up form](#) that adds you to the roster and automatically figures out your performance index number (PIN).
- Race Direction reserves the right to dyno and weigh cars, or put a GPS device in your car at any time to evaluate data and maintain parity in the classes. Note that we can calculate your lbs/hp ratio based on longitudinal Gs. If your car is found to be outside the expected values, you will lose points and/or be disqualified.
- If you make changes to your car that would result in a change in performance, (for example, changing tires), you must inform Race Direction of your new PIN (admin@pineviewrun.com).
- You must submit a tech sheet with your classing sheet. See our tech rules here: <https://pineviewrun.com/tech-inspection>

1.1 Schedule

The race series consists of ten races: four Saturday mornings from 9:00-12:00, five Thursday evenings 5:00-8:00, plus the final on Saturday 9/23. Your **top 8** races count towards your final score, plus the double-points final.

1. Saturday 5/6
2. Thursday 5/18
3. Saturday 6/10
4. Thursday 6/15
5. Saturday 7/1
6. Thursday 7/20
7. Saturday 8/5
8. Thursday 8/17
9. Thursday 9/14
10. Saturday 9/23 Double-points final

1.2 Race-day procedure

- Each event starts with a practice session, if you arrive late, you miss practice. There is no passing in practice; if you need room, back off or exit the track and have the track marshall find you room at track in.
- During the race sessions, cars are grouped by lap time. Race control will run up to a maximum of 5 cars/group. The actual numbers from race to race may vary, and will be as evenly spaced as possible, based on the number of entries and relative lap time(s) to achieve the most fair and efficient runs. The cars are released at evenly-spaced intervals for a 15-minute session, as is our normal practice for Pineview club day driving sessions.
- You may elect to do a single fast lap or run the entire session, it's up to you. Your fastest lap time during the 15-minute session is the one that counts. You can start the run, exit and re-enter the track any time during the session as long as Race Control deems it safe to re-enter.
- Race Control will space cars evenly on track at the start of the session. However, it's possible that a faster car may catch a slower car (due to a spin, mechanical problems, or drivers of different abilities). Do not pass or give a point-by. Come through the pits and the track marshall will find you space in that session.
- You will get two or three sessions per day, depending on the number of participants.

2. Performance Index Number (PIN)

All cars are calculated to a raw score using pounds divided by horsepower divided by tire points. This is the same formula we've used for years, that gave us classes C1 to C4. Unlike previous years, we use the raw score, and not the rounded score:

$$\text{RAW} = \text{lbs} / \text{hp} / \text{tire}$$

The raw score is used to determine the car's performance index number (PIN) using the following formula:

$$\text{PIN} = (1 - ((\text{RAW} - 1) * .03))$$

The PIN is calculated for you when you submit the sign up form. For more explanation and examples, see Appendix A.

2.1 Weight

The competition weight of the car is the weight of the car *as you race it*. Meaning, all your tools and spares are out of the trunk, there's gas in the tank, and you're in the seat with your helmet and other race gear. All cars will be weighed at the start of the season. Race Direction reserves the right to weigh your car at any time during the season. Cars that are underweight may be disqualified, and have points removed from previous races.

2.2 Horsepower

This is a measurement of the horsepower of your car, as measured on a Dynojet dyno. For Mustang, Land and Sea, or dynos that read lower, multiply measured horsepower by 1.12. We understand that not everyone dynos their car, and so you may submit a dyno sheet from an engine in a similar state of tune. You should be able to find dyno charts online. Don't cheat, all data will be public.

If you have an unmodified engine, you may use the manufacturer's figures multiplied by .9. For example, if your ND Miata is rated at 155 hp from the manufacturer, use 139.5 hp (155 * .9).

2.3 Tire points

Tire ranking is based on years of data, rather than a coarse measurement such as treadwear (UTQG). You'll see there is a large variation of tire points, especially in the 200 treadwear category, which encompasses endurance, autocross, and budget tire compounds.

Front-wheel drive cars are particularly handicapped at Pineview Run. To compensate, multiply tire points by 0.8 to get the final value.

Pts*	FWD	UTQG	Type	Examples
2.8	2.8**	500+	All-season	Any UTQG 500+ (no FWD bonus)
3.5	2.8	400-500	Various	Any UTQG 400+
4	3.2	300-380	Summer	Accelera 651 Sport (200), BFG SC2, Continental ExtremeContact Sport, Federal SS595 (260), Firestone Firehawk Indy 500, Michelin Pilot Sport 4S, Pilot Super Sport, any 300+ TW not listed
4.5	3.6	200-280	Older 200; 220+ TW	Avon ZZS, Bridgestone Potenza S001, Champiro SX2 (260), Conti SC6, Dunlop Z2, Falken 615K+, Federal RS-R (220), Maxxis VR1 (S1), Nitto NT05, Pirelli PZero PZ4, any 220-280 TW not listed
5	4	200	Enduro 200	Accelera 651 Xtra (100), BFG Rival, Champiro SX2 RS (200), Hankook RS4, Maxxis VR1 (S2), Nankang NS-2R, Toyo R1R, Yokohama AD08R
5.5	4.4	100-200	Faster 200; Older 100TW	Continental ECF, Cooper RS3-R, Dunlop Z3, Federal RS-RR and RS-Pro, Kumho V730, Maxxis RC1 (R1), Michelin Pilot Sport Cup 2, Pilot Sport Cup 2 Connect (240), Nexen Sur 4G, Nitto NT01, Toyo R888R, RA1, Yokohama AD08R
6	4.8	100-200	Super 200; Newer 100TW	Bridgestone RE71R, BFG Rival 1.5 S, Falken RT660, Federal FZ201M (100), Goodyear Eagle F1 SC3, Maxxis RC1 (R2), Nankang AR1, CR-S, Nexen Sport R, any 120-200 TW not listed
6.5	5.2	40-200	Hard slick; AX	Bridgestone RE71RS, Federal FZ201S (40), Hankook Z214 C5/C51, Toyo RR, Yokohama A052, any 100 TW not listed
7	5.6	40-60	Med slick; DOT max	BFG R1, Federal FZ101, Goodyear Eagle RS, F1 SC3R, Hankook Z214 C7/C71, Hoosier R7, SM7/7.5, SM Wet, Kumho V710, Michelin PSC 2R, Pirelli Trofeo R, any 60-80 TW not listed.
7.5	6	0-40	Soft slick	BFG R1S, Goodyear RSA, Hankook Z214 C9/91, Hoosier A7, H20 Wet, any non-DOT racing slick or 40 TW not listed.

* Race direction reserves the right to change tire points at any time to balance competition.

** No tire may be less than 2.8 points, for any driveline configuration.

2.4 In-season Adjustments

If you change the pounds, horsepower, or tires on your car, use the [sign-up form](#) again to recalculate your PIN.

- For competitors driving on slick tires, you should fill out a second PIN Worksheet with your rain tires (if they are a different tire value).
- For anyone planning to race more than one car or tire, fill out a PIN worksheet for each.

3. Timing and Scoring

We use an AMB closed-loop timing system. You may bring your own AMB (MyLaps) transponder, or we have a limited number you can rent.

- Rental transponders must be reserved in advance. We recommend attaching a quick-release bracket (\$8 from Pegasus Racing Supply) to your vehicle; they are sturdy and save on zip ties.

3.1 PIN and Adjusted Lap Time (Score)

During each event, your fastest lap is multiplied by the performance index number (PIN) to give an adjusted lap time that can be compared equally with other cars of varying performance. This is similar to the PAX system in SCCA autocross, and allows drivers of different cars to be evaluated against each other.

For example:

Car A has a PIN of **.963** and does a **1:13.5** lap time, for an adjusted lap of **70.780** (.963 x 73.5).

Car B has a PIN of **.938** and does a **1:15.3** lap time, for an adjusted lap of **70.631** (.938 x 75.3).

The driver in Car B beats Car A, because the total score was lower 70.631 vs 70.780.

The following penalties apply to timed laps, *after* PIN adjustment:

- **Two wheels off track** - All laps in that session incur a 1 second penalty, not just the lap when the penalty occurred.
- **Four wheels off track** - The driver will be penalized 1 second as above, and 1 point against the race *series*.
- **Oiling the track** - If your car drops fluids on track, you may be billed for cleanup, per club rules. You may be further penalized, at the discretion of Race Direction.

3.2 Race points

Your top 7 races count towards your final score, plus the double-points final. The maximum score is 90 points.

1st place	10 pts	6th place	5 pts
2nd place	9 pts	7th place	4 pts
3rd place	8 pts	8th place	3 pts
4th place	7 pts	9th place	2 pts
5th place	6 pts	10th+ place	1 point

If two or more competitors are tied on points after the final race, all tied competitors will drive the same car. Driver order will be chosen at random, and the fastest lap wins the Pineview Challenge Cup.

3.3 Classes and divisions

There are two classes, Challenge Cup and Clubman Cup, and one division for 65 and older.

- **Challenge Cup** - The main event, for all the glory.
- **Clubman Cup** - For newcomers and the more casual racer. No previous winners of the Pineview Challenge Cup, nor any previous Class Champion, may enter this division.
- **Masters Division** - Drivers 65 and older must enter either the Challenge Cup or Clubman Cup race series and will accrue points in that class. In addition, all Masters competitors will be scored separately against other competitors who are all 65 and older. There is no PIN calculation for Masters division, the placements and points are decided by actual lap time.

3.4 Awards

Awards are given at every event, and special awards will be given at the end of the year.

- **Event Awards** - 1st-3rd place trophy for each class and regular awards from our sponsors at each event.
- **Challenge Cup Champion** - Name engraved on the perpetual Challenge Cup trophy, Championship jacket, bragging rights, and other awards.
- **Clubman Cup Champion** - Trophy, and welcome to the Challenge Cup class next year!
- **Masters Division** - Top scorer in the 65 and over class will get special recognition.

Appendix A: PIN Calculation

While we are not using the familiar C1 to C4 classes in 2023, the legacy classing *formula* is used to calculate the PIN for each car. When you multiply your lap time by your car's PIN number, you will essentially get a class C1 lap time.

The PIN value is derived from years of data, and is based on a theoretical record lap in each class. In the future we may need to adjust the PIN value calculation, especially since the rules were developed for the original layout, and the bypasses may imbalance the parity. Yearly refinement is expected.

The PINs, and *theoretical* best laps are listed here for transparency.

PVC Class	PIN	Lap
C1	1.000	1:10.000
C2	0.970	1:12.165
C3	0.940	1:14.468
C4	0.910	1:16.923

Some C1 cars (Billy, GT3 Cup) went under the theoretical best lap of 1:10. This is not an error, as those cars evaluated to less than 1.0 raw score, and were in C1 because it was an open class. You may also notice that the theoretical lap times for C2, C3, and C4 are a bit lower than the actual record laps, as these theoretical laps represent a car developed to the limit of the class rules, and driven flawlessly.

Note that you can't have a PIN value less than .815, the spreadsheet automatically sets a limit of .815 for any cars with lower PINs.