

2024 Leroy Engineering Miata Cup Class Rules

CLASS OBJECTIVE

The purpose of this class is to create an opportunity for local autocross competition that is affordable, attainable, and based on the cars that we see most commonly in our shop. The goal is to create a place for cars that are otherwise non-competitive in the traditional SCCA classing and create an exciting venue to race and enjoy them.

CATEGORY VALUES

- Vehicle modifications must not prevent daily use on public roads. All vehicles must remain street legal and meet local and federal law.
- Performance Improvements Through “Bolt-On” Modifications
 - Modifications that enhance the performance for both autocross and street driving, and not detracting from one or the other.
- Level playing field
 - The goal is to allow cars from 90-15 to compete based solely on raw time. Therefore, some of the rules are below the max that the 99-05 and 06-15 cars can take, to keep the racing competitive.

Spirit of the class

The spirit of this class is for modified NA/NB/NC Miata's that are autocrossed/tracked on the weekend, but also driven as daily's during the week. This means they have enough suspension, wheel and tire upgrades to drive well at the track but are fully compliant with all EPA and DOT laws, and also not too harsh or stripped as to become uncomfortable on the street. They also can be competitive while retaining all the creature comforts that make them enjoyable street cars. (radio, AC, etc)

Class Rules

If something is not listed as allowed, then it is assumed it is not allowed. The below rules leave a large amount of freedom for custom upgrades and limitless cosmetic modifications, while limiting the overall performance to keep racing tight, and budgets low.

Eligible vehicles

1990-1993 1.6 NA Miata
1994-1997 1.8 NA Miata
1999-2000 1.8 NB Miata
2001-2005 1.8 NB Miata (non-mazdaspeed)
2006-2015 2.0 NC Miata

BODYWORK AND INTERIOR

- A. Any interior modifications are allowed provided the car retains a “complete interior” (no gutted cars). All cars must maintain the following features:

1. Functioning HVAC system. AC may be deleted.
2. OEM seat belts. Harnesses may be added, but the OEM belts may not be removed
3. Carpet, door cards, dashboard, and parcel shelf carpet. Any of these items may be replaced with aftermarket versions, provided they weigh the same or more than the original parts.
4. Soft top and frame, or a hardtop. All runs must be done with at least one of the two installed.

B. The seats may be replaced with the following restrictions. The seating surface must be fully upholstered. The top of the seat, or an attached headrest, may not be below the center of the driver's head. Seats must be attached using the OE body mounting holes/studs. Additional mounting points may be added.

C. Fenders may not be cut or flared but the inside lip may be rolled to gain additional tire clearance. (The outer fender contour may not be changed.) Plastic and rubber wheel well splash shields may be modified or removed for tire clearance and to accommodate a rolled inside fender lip.

D. Addition or substitution of spoilers, splitters, rear wings, bumper covers, valances, side skirts, and non-functional scoops/vents is allowed provided they are for cosmetic or cooling purposes only.

WHEELS AND TIRES

- A. Any wheels are allowed provided they meet the following requirements;
 1. They fit under the body without any modifications other than rolling the fenders
 2. Maximum diameter of 17"
 3. Maximum width of 9"
- B. The series is designed around the Falken RT660 tire. However, any of the following 200 TW tires are allowed, in any size up to the maximum listed

Tire	Maximum width for NA/NB	Maximum width for NC
Falken Azenis RT660	225	205
Dunlop Direzza ZIII	225	205
Toyo Proxes R1R	225	205
Kumho Ecsta V730	225	205
BFGoodrich G-Force Rival S	225	205
Bridgestone POTENZA RE-71RS	205	N/A
Yokohama Advan A052	205	N/A
All other unlisted 200tw or higher tires	205	N/A

SHOCK ABSORBERS/STRUTS

- A. Shock absorber bump stops may be altered or removed.
- B. Any shock absorbers or coil-overs may be used. Shock absorber mounting brackets which serve no other purpose may be altered, added, or replaced, provided that the attachment points on the body/frame/subframe/chassis/suspension member are not altered. No shock absorber may be capable of adjustment while the car is in motion.

BRAKES

- A. Non-standard brake rotors may be used provided they are of equal or larger dimensions (diameter and overall thickness) than the OEM size. (1.6 brakes cannot be installed on 1.8 cars) Aluminum rotor hats are allowed. Cars originally equipped with solid (non-vented) rotors may utilize vented rotors. Cross-drilled and/or slotted brake rotors may be fitted.
- B. Brake lines may be substituted with alternate DOT-approved flexible brake lines.
- C. Air ducts may be fitted to the brakes provided the air directed to the brake rotor originates forward of the wheel well. Modifications to fender liners, undertrays, and splash guards for routing of ducts is permitted. Backing plates and dust shields may be substituted, modified, or removed. Deflectors that mount to components within the wheel well and serve to direct air towards the rotors are permitted. Modifications for brake ducting may serve no other purpose.
- D. Original equipment ABS braking systems may be electrically disabled or removed.
- E. Disc brake calipers and mounting brackets may be replaced provided they bolt to the standard locations and the number of pistons is equal to or greater than standard. A functioning emergency brake of the same type, operation, and actuation as OE must be present.
- F. Any brake pad may be used.

ANTI-ROLL (SWAY) BARS

- A. Substitution, addition, or removal of any anti-roll bar(s) is permitted. Bushing material, method of attachment, and locating points are unrestricted. Frame bracing to stiffen sway bars are allowed.

SUSPENSION AND BRAKES

- A. Ride height may only be altered by lowering springs or coil-overs.
- B. Suspension bushings may be replaced with poly bushings.
- C. Differential mount bushings may be replaced with poly bushings.
- D. Steering racks may be de-powered, or replaced with OEM non-powered racks.
- E. Extended ball joints, aftermarket control arms and bearings are allowed.
- F. A single brake master cylinder brace may be added provided it is bolt on and serves no other purpose

ELECTRICAL SYSTEM

- A. The make, model number, and size of the battery may be changed but not its voltage, and it must remain mounted in the OEM location.

- B. The addition of electrical grounding cables and associated distribution blocks/terminals is permitted. Holes may be drilled for mounting only. This does not permit the use of electrical enhancement components such as condensers, voltage controllers, etc.
- C. Switches and controllers to running cooling fans are allowed.
- D. The addition of gauges to monitor engine temps and functions are allowed, provided they are for passive monitoring purposes only.

ENGINE AND DRIVETRAIN

- A. Cars must run the OEM engine for each car year. Engine swaps are not allowed.
- B. Engines may be rebuilt with the following limitations:
 - 1. Maximum of 1mm overbore
 - 2. Maximum of 10:1 Compression
 - 4. Oil pump pressure may be increased
 - 5. All other specs must be within the OEM allowances for a rebuild.
- C. The air intake system up to, but not including, the throttle body may be modified or replaced. **Forced induction systems are not allowed.** The existing structure of the car may not be modified for the passage of ducting from the air cleaner to the engine inlet. Holes may be drilled for mounting. Emissions or engine management components in the air intake system, such as a PCV valve or mass airflow sensor, may not be removed, modified, or replaced, and must retain their original function along the flow path.
- D. Exhaust manifolds, headers, downpipes, and associated EGR tubes may be replaced with alternate units provided the EGR system remains intact. Relocation of the oxygen sensor on the header is permitted, including lengthening or shortening oxygen sensor wiring. Exhaust heat shields which cover only, and attach solely to, these parts may also be replaced, removed, or modified. All other exhaust heat shields may be modified the minimum amount necessary to accommodate allowed alternate exhaust components. Mounting brackets/hardware which serve no other purpose are considered part of the exhaust components.
- E. Any catalytic converters are allowed provided they are CARB or 48 state legal. Catalytic converters must be mounted in the original location and meet all local and federal laws.
- F. The engine management system may not be changed, tuned, or replaced.
- G. Ignition timing may be set at any point on factory-adjustable distributor ignition systems.
- H. Any modifications to the engine bay for purely cosmetic reasons are allowed. This includes relocating parts, cutting the valve cover back, powder-coating or painting parts and removing covers, brackets and hoses provided there is no performance gain, and the system remains EPA legal.
- I. Any Limited Slip Differential is allowed.
- J. Engine cooling radiators may be replaced with alternate parts subject to the following restrictions:
 - 1. Radiator core dimensions (width, height, thickness) cannot be smaller than the standard part.
 - 2. Radiator must mount to OE radiator mounts.
 - 3. Fluid capacity and dry weight of the radiator must be no less than that of the standard part.
 - 4. Installation of an alternate radiator may serve no other purpose (e.g., to allow a cold air intake passage).

K. The flywheel, clutch disk and pressure plate may be modified or replaced.

Championship Format and Rules

Race Schedule

There will be 7 races in the season. These races will take place at several different autocross venues in the NE Ohio and NW PA SCCA clubs.

Cars must be marked with the class letters **LMC**.

If cars are classed in multiple classes, cross out the class not being run with tape or a magnet.

There is not currently a PAX multiplier for this class.

Driver/Car Allowances

Each car may have up to 2 drivers. (A primary and a co-driver).

All drivers must complete the entire series in the same car, with the following exceptions

- a. Driver's primary car breaks or fails to pass tech
- b. Driver's primary car is unable to make the event (co-driving with someone who isn't able to make the event and thus isn't able to supply the car)

If the primary car is unable to complete, the driver may opt to use another eligible car already registered and in the series.

Championship points

For all cars registered in the championship, points will be awarded as follows for each event

Position	Points awarded
1	30 pts
2	27 pts
3	25 pts
4	23pts
5	22 pts
6	21 pts
7	20 pts
8	19 pts
9	18 pts
10	17 pt
11	16 pts
12	15 pts
13	16 pts
14	15pts

15	14 pts
16	13 pts
17	12 pts
18	11 pts
19	10 pts
20	9 pts
21	8 pts
22	7 pts
23	6 pts
24	5 pts
25	4 pts
26	3 pts
27	2 pts
28	1 pts
29+	0 Points

Finishing position is based on raw time for each event.

For the season, the lowest 2 finishes (or DNF's) will be tossed out for each competitor. So each competitor only needs to attend 5 of the 7 races.

The final race of the session is NOT eligible as one of the 2 dropped scores.

In case of a tie, the first highest dropped scores will be used. If the tie still exists, the second dropped scores will be used. If there is still a tie, then the highest average finishing position will be used.