



# 2025 Rules

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## Introduction

Welcome to 86 Challenge. Drivers of all skill levels are welcome and there is no charge to participate.

See [86challenge.us](https://86challenge.us) for more information, including schedule, historical results, and forms for registering for GT Radial's Championship Cash Prize and tire contingency program.

Questions, corrections, and clarifications can be raised on our [Facebook Group](#) or [Discord server](#).

## 1. General Rules

1.1. Chassis must be one of the following (hereafter referred to by its *Designation*):

Chassis	Designation
• 2012–2016 Scion FR-S	Gen. 1
• 2012–2020 Subaru BRZ	
• 2017–2020 Toyota 86	
• 2022+ Subaru BRZ	Gen. 2
• 2022+ Toyota GR86	

### 1.2. GT Radial Sponsorship

- 1.2.1. Participation in GT Radial Championship Cash Prize and tire contingency are optional and require submitting [registration forms](#) directly to GT Radial
- 1.2.2. Participants in the Championship Cash Prize and tire contingency must display 1 large GT Radial decal on the windshield and display 2 smaller GT Radial decals, one on each side of their car

### 1.3. Timing

- 1.3.1. The following timing methods are accepted, but transponder time will take priority if more than one time is available for a given lap:

Timing Method	Time Penalty (s)
Official timing transponder	0.0
Data logger with at least 10Hz GPS (e.g. Aim Solo 2)	0.2
Data logger with at least 1Hz GPS (e.g. iPhone)	0.5

- 1.3.2. If a driver participates in multiple run groups, they must declare in advance which run group will be used for official timing. Please declare which run group will be used for timing on your event registration form if you sign up for multiple run groups.
- 1.3.3. If a driver participates in a dedicated 86 Challenge run group, their timing will be taken exclusively from that run group.

#### 1.4. Classes

- 1.4.1. Cars will be classed according to rules and modification points listed in the following sections.
- 1.4.2. A car may be used in multiple classes if driven by different drivers. Please comment on your event registration form if you are co-driving a car and what group you are driving in.
- 1.4.3. Prior to a driver's first event of the season, they may declare to run in a higher class than their modification points would normally dictate.
- 1.4.4. A driver shall not compete in more than one class during an event.
- 1.4.5. If a driver modifies their car mid-season and moves up or down a class, the points earned in the previous class will NOT be carried over to the new class. Drivers may choose to not earn points in the new class and keep the points in the previous class. Drivers participating in the GT Radial Championship Prize challenge cannot change classes.

#### 1.5. Scoring

- 1.5.1. Championship points are awarded at the end of each event according to the chart below:

Finish Position	Points
1st	10
2nd	7
3rd	5
4th	4
5th	3
6th	2
7th+	1

- 1.5.2. At the end of the season, the driver with the most points from 7 of the best scores out of 10 events wins the championship.
- 1.5.3. Ties will go to the competitor with the lowest time at the same configuration Thunderhill East regular event during the season. If there is still a tie, the participant with the fastest time at Laguna Seca regular event during the season will be awarded the win.

#### 1.6. In-season rule changes

- 1.6.1. Changes which make the rules more *restrictive* will be announced 60 days ahead of enforcement
- 1.6.2. Changes which make the rules more *permissive* may be enforced immediately
- 1.6.3. All rule change will be announcemented and will include the date on which they are effective

## 2. GT Radial Stock Class

*This class is designed to keep costs to a minimum and be attractive to drivers with nearly-stock vehicles. Participants are eligible for GT Radial Championship Cash Prizes and GT Radial Tire Contingency.*

2.1. Vehicles in this class are only allowed performance modifications included in this section

2.2. In order to balance performance between Gen. 1 and Gen. 2 cars, a time handicap will be added to Gen. 2 lap times, according to the table below. For any tracks/configurations not listed below, the closest comparable track configuration will be used

Track	Handicap Time (s)
Buttonwillow Raceway #1	2.5
Buttonwillow Raceway #13	2.0
Buttonwillow Raceway New Track	1.5
Laguna Seca	2.5
Sonoma Raceway	2.5
Thunderhill 5-mile Bypass	4.0
Thunderhill East	2.5
Thunderhill West	1.5

### 2.3. Engine

2.3.1. Engine tuning must be unmodified

2.3.2. Oil coolers, accumulators, and/or sump changes are allowed

2.3.3. Gen. 2 intake charcoal filters shall be present and unaltered

### 2.4. Alignment

2.4.1. Front camber shall not exceed (be more negative than) -2.5 degrees

2.4.2. Front camber may be adjusted using only the following parts:

Description	Allowed Parts
Crash bolt (i.e. 14mm lower bolt used in upper position)	<ul style="list-style-type: none"><li>• Toyota SU003-02818</li><li>• Subaru 901000394</li></ul>
Camber bolts (in either/both positions)	<ul style="list-style-type: none"><li>• SPC 81280</li><li>• SPC 81305</li><li>• Whiteline KCA416</li><li>• Whiteline KCA414</li><li>• Eibach 5.81305K</li></ul>
Front Strut Mounts	<ul style="list-style-type: none"><li>• Pedders PED-580096</li><li>• Whiteline KCA335</li></ul>
Camber plates	<ul style="list-style-type: none"><li>• Any</li></ul>

2.4.3. Rear camber with stock, unmodified, and undamaged components is not restricted

2.4.4. Rear camber with adjustable components shall not exceed -2.0 degrees

2.4.5. Rear camber may be adjusted using only the following parts:

Description	Allowed Parts
OEM-style, adjustable, steel rear lower control arm	<ul style="list-style-type: none"><li>• SPC 67660</li><li>• Moog RK100136</li><li>• Whiteline KTA216A</li></ul>
Camber bolts	<ul style="list-style-type: none"><li>• H&amp;R TC112</li></ul>

2.4.6. Toe angle may be adjusted without limitation

- 2.4.7. Cutting or bending of any vehicle sheet metal or suspension components to change alignment or ride height is not allowed

## 2.5. Wheels

- 2.5.1. Wheels must have a maximum width of 8.0 inches  
2.5.2. Wheel spacers are allowed

## 2.6. Tires

- 2.6.1. Tires must be one of the following:

Models	Sizes
GT Radial Champiro SX2 or HPY	• 215/45R17 • 225/45R17
Michelin Primacy HP (OEM)*	• 215/45R17
Michelin Pilot Sport 4 (Gen. 2 OEM)*	• 215/40R18

- 2.6.2. OEM tires (marked with \*) are only allowed for a competitor's first 2 events  
2.6.3. Points earned with OEM Michelin tires will not be eligible toward GT Radial tire contingency nor toward GT Radial Championship Cash Prize

## 2.7. Aero

- 2.7.1. STI and TRD lips are not allowed  
2.7.2. Gen. 1 BRZ tS wing is not allowed  
2.7.3. Gen. 2 ducktails (OEM or equivalently-sized) are allowed

## 2.8. Safety

- 2.8.1. Any safety device may be used  
2.8.2. Cars equipped with a full aftermarket safety system (bucket seats, racing harnesses, neck restraint system, full or half roll cage, etc.) are allowed, as long as total curb weight of the car with full tank of fuel remains above 2800 lbs without driver. The car will need to be weighed at a location approved by the Rules Board before it is allowed to enter Stock Class.

## 2.9. Misc

- 2.9.1. OEM-style, off-the-shelf, non-adjustable, and non-rebuildable dampers with unaltered valving are allowed  
2.9.2. Braking upgrades are allowed  
2.9.3. Replacing OEM parts with newer/older OEM parts is allowed (e.g. dampers, sway bars, etc).  
2.9.4. No lightweight replacement parts are allowed (e.g. battery, lighter than OEM trunk) or removal of parts allowed.  
2.9.5. Removal of spare tire, floor mats, and tools is allowed.  
2.9.6. Non-OEM cat-back exhaust with a weight greater than 32 lbs is allowed (no removal of any catalyst)

# 3. GT Radial Street Class

*This class allows moderate modification flexibility and balances competition between generations through Modification Points. Participants are eligible for GT Radial Championship Cash Prizes and GT Radial Tire Contingency.*

- 3.1. Drivers are allotted 3 modification points according to [Modification Points](#)  
3.2. Minimum weight is 2800 lbs without driver and with a full tank of gas  
3.3. Wheels

3.3.1. Wheels must have a maximum width of 9.0 inches

### 3.4. Tires

3.4.1. Tires must be one of the following:

Models	Sizes
GT Radial Champiro SX2 or HPY	• 17" only with 245mm maximum width
Michelin Primacy HP (OEM)*	• 215/45R17
Michelin Pilot Sport 4 (Gen. 2 OEM)*	• 215/40R18

3.4.2. OEM tires (marked with \*) are only allowed for a competitor's first 2 events

3.4.3. Points earned with OEM Michelin tires will not be eligible toward GT Radial tire contingency nor toward GT Radial Championship Cash Prize

## 4. Touring Class

*This class allows for significant modification freedom and times are adjusted based on Modification Points. Participants are eligible for GT Radial Tire Contingency.*

4.1. Drivers are allotted 10 modification points according to [Modification Points](#)

4.2. Maximum tire width: 255 mm

4.3. Minimum weight is 2750 lbs without driver and with a full tank of gas

4.4. Event standings will be determined by *Adjusted Track Time*, as defined below:

$$\text{Adjustment Factor} = \frac{\text{Gen. 1 Stock record at event track}}{\text{Gen. 1 Stock record at Thunderhill East Bypass}}$$

$$\text{Touring Handicap} = \text{Modification Points} \times \text{Adjustment Factor}$$

$$\text{Adjusted Track Time} = \text{Raw Time} + \text{Touring Handicap}$$

4.5. You can use the following table to find the *Touring Handicap* given Modification Points and a track:

Track/Points	-1	-0.5	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Thunderhill West	-0.7	-0.3	0	0.3	0.7	1	1.4	1.7	2.1	2.4	2.7	3.1	3.4	3.8	4.1	4.5	4.8	5.2	5.5	5.8	6.2	6.5	6.9
Thunderhill East	-1	-0.5	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Thunderhill 5-Mile	-1.7	-0.8	0	0.8	1.7	2.5	3.3	4.1	5	5.8	6.6	7.5	8.3	9.1	9.9	10.8	11.6	12.4	13.3	14.1	14.9	15.8	16.6
Sonoma	-0.9	-0.5	0	0.5	0.9	1.4	1.8	2.3	2.8	3.2	3.7	4.1	4.6	5.1	5.5	6	6.4	6.9	7.4	7.8	8.3	8.7	9.2
Buttonwillow	-1	-0.5	0	0.5	1	1.5	2	2.4	2.9	3.4	3.9	4.4	4.9	5.4	5.9	6.4	6.9	7.3	7.8	8.3	8.8	9.3	9.8
Laguna Seca	-0.8	-0.4	0	0.4	0.8	1.3	1.7	2.1	2.5	2.9	3.3	3.8	4.2	4.6	5	5.4	5.8	6.3	6.7	7.1	7.5	7.9	8.3

## 5. Unlimited Class

*This class allows unconstrained builds to achieve the ultimate 86 lap times. For people who don't like conforming to rules!*

5.1. Anything goes!

## 6. Modification Points

This section applies only to GT Radial Street Class and Touring Class.

## Chassis

Points	Chassis
0	Gen. 1 (2013–2020 model years)
2	Gen. 2 (2022+ model years)

## Tires

Any tire not on this list will automatically be 6pts

Points	Tires
-1	<ul style="list-style-type: none"> <li>• 17" GT Radial SX2</li> <li>• 17" GT Radial HPY</li> <li>• 17" Michelin Primacy HP</li> </ul>
0	<ul style="list-style-type: none"> <li>• Michelin Pilot Sport 4 (OEM size only 215/40R18)</li> <li>• Yokohama Advan Apex V601</li> </ul>
1	<ul style="list-style-type: none"> <li>• 18" GT Radial SX2</li> <li>• GT Radial SX2 RS</li> </ul>
2	<ul style="list-style-type: none"> <li>• Continental ExtremeContact Sport (ECS)</li> <li>• Dunlop Direzza ZII Star Spec</li> <li>• Dunlop Direzza ZIII</li> <li>• Falken Azenis RT615K</li> <li>• Federal 595 RS-RR</li> <li>• Goodyear Eagle F1 Supercar 3</li> <li>• Hankook Ventus RS-4</li> <li>• Kumho Ecsta V730</li> <li>• Maxxis VR-1</li> <li>• Michelin Pilot Sport 4S</li> <li>• Michelin Pilot Sport Cup 2 (180TW)</li> <li>• Michelin Pilot Sport Cup 2 Connect</li> <li>• Nankang NS-2R</li> <li>• Nexen N'fera SUR4</li> <li>• Nitto NT01</li> <li>• Nitto NT05</li> <li>• Toyo Proxes R888</li> <li>• Yokohama Advan AD08R</li> </ul>
3	<ul style="list-style-type: none"> <li>• BFGoodrich g-Force Rival S</li> <li>• Bridgestone Potenza RE71R</li> <li>• Bridgestone Potenza RE71RS</li> <li>• Continental ExtremeContact Force (ECF)</li> <li>• Falken Azenis RT660</li> <li>• Goodyear Eagle F1 Supercar 3R</li> <li>• Maxxis Victra RC-1</li> <li>• Maxxis Victra VR2</li> <li>• Nankang AR-1</li> <li>• Nankang CR-1</li> <li>• Nexen N'Fera SUR4G</li> <li>• Yokohama Advan A052</li> </ul>

Points	Tires
5	Treadwear 40–99
6	Racing slicks or any other unlisted tire

### Engine & Drivetrain

Points	Modifications
0.5	Gen. 1 Aftermarket intake, header, front-pipe, overpipe, and/or any removal of OEM catalytic converter
0.5	Gen. 1 NA tune for $\leq 93$ (R+M)/2 octane rating (non-OEM)
1.5	Gen. 1 NA tune for $>15\%$ ethanol content or gasoline $>93$ (R+M)/2 octane rating
0.5	Gen. 2 Aftermarket intake, header, front-pipe, overpipe, and/or any removal of OEM catalytic converter
1	Gen. 2 NA tune for $\leq 93$ (R+M)/2 octane rating (non-OEM)
1.5	Gen. 2 NA tune for $>15\%$ ethanol content or gasoline $>93$ (R+M)/2 octane rating
5	Forced induction and tune for $\leq 93$ (R+M)/2 octane rating
2	Forced induction tuned for $>15\%$ ethanol content or gasoline $>93$ (R+M)/2 octane rating
0.5	Lighter than OEM rotational inertia flywheel, clutch, and/or driveshaft
0.5	Non-OEM limited slip differential
1	Non-OEM Transmission
2	FA20 to FA24 engine swap
X	Any other engine swap or hybrid system (contact Rules Board for individual engine swap classing)

### Front Aero

Points	Modifications
0	Small Front Aero: STI lip, TRD lip, or any device extending $<50\text{mm}$ from bumper
1	Medium Front Aero: Device extending $50\text{--}74\text{mm}$ outward/rearward from bumper
1.5	Large Front Aero: Device extending $75\text{--}124\text{mm}$ outward/rearward from bumper
3	Unlimited Front Aero: Device extending $>125\text{mm}$ from bumper
0.5	Canards/dive planes, hood vents, fender vents, or vertical deviation on splitter

### Rear Aero

Points	Modifications
0	Really Small Rear Aero: OEM rear spoilers, OEM wings, aftermarket $<60\text{mm}$ height
0.5	Small Rear Aero: Aftermarket rear spoiler $>60\text{mm}$ height
1	Medium Rear Aero: Gen. 1 BRZ tS wing, SARD LSR, wings with max width of $1400\text{mm}$
1.5	Large Rear Aero: APR GTC-200, Voltex Type 12, wings with max width of $1460\text{mm}$
2	Unlimited Rear Aero: Wings wider than $1460\text{mm}$ , higher than $245\text{mm}$ , or chord length $>250\text{mm}$
0.5	Any rear diffuser extending in front of the rear axle or behind the rear bumper

## Suspension

Points	Modifications
0	OEM-style, non-adjustable dampers
0.5	Non-OEM springs
0.5	Adjustable dampers or modification to damper valving
0.5	Remote reservoirs

## Weight Reduction

Points	Modifications
1	Removal of any interior trim pieces or seating not required for installation of a roll cage

## Free Modifications

Points	Modifications
0	<ul style="list-style-type: none"> <li>Any in-cabin safety equipment</li> <li>Any interior removal as needed to accommodate safety equipment</li> <li>Any replacement drop-in air filter for OEM intake</li> <li>Gen. 2 charcoal airbox filter removal</li> <li>Intake resonator removal</li> <li>Aftermarket radiator or oil-cooler</li> <li>Aftermarket calipers, rotors, pads or brake ducting</li> <li>Any interior removal as needed to accommodate safety equipment</li> <li>Any alignment bolt/kit, bump steer kit, tie rod end, roll center adjuster</li> <li>Any spherical bushings including strut top mounts</li> <li>Any bolt-on chassis bracing</li> <li>Any oil-catch can, oil baffle pan</li> <li>Any transmission or diff cooling system</li> <li>Any lightweight battery</li> <li>Any cat-back (no removal of any catalyst) exhaust</li> </ul>

## Prohibited Modifications

Points	Modifications
∞	<ul style="list-style-type: none"> <li>Active aero devices</li> <li>Active dampers</li> <li>Aftermarket ABS or TCS, or modified driver assist firmware</li> <li>Air suspension</li> <li>Any advanced driver-assistance systems (ADAS) system</li> <li>Any non-aluminum or steel wheels (e.g. carbon fiber, magnesium, titanium)</li> <li>Any non-pump-gasoline or non-ethanol/gasoline fuel</li> <li>Cutting, removing, or reshaping exterior parts not required for pointed modifications</li> <li>Changing suspension type (e.g. double A-arm, inboard shocks/springs) is prohibited</li> </ul>