
Pro86 Technical Regulations

Version 2.0, 9/28/2026

1. Introduction & General Rules

- **1.1 The "Golden Rule":** If a specific component or modification is not explicitly authorized in these regulations, it is **prohibited**. All vehicles must remain as delivered from the factory unless a modification is permitted herein.
- **1.2 Vehicle Eligibility:** Toyota 86, Subaru BRZ, and Scion FR-S, Model Years 2013–2020 (chassis codes ZN6/ZC6) equipped with the FA20 engine.
- **1.3 Vehicle Presentation & Appearance:**
 - **1.3.1 Professional Standard:** All vehicles must maintain a neat, clean, and professional appearance. Vehicles that are dirty, significantly dented, rust-perforated, or have missing body panels may be excluded from competition at the discretion of the Race Director.
 - **1.3.2 Paint & Finish:**
 - All body panels must be fully painted or vinyl-wrapped. Mismatched body panel colors are permitted.
 - Large areas of primer or bare Bondo/body filler are **prohibited**.
 - The vehicle must be clean and free of excessive dirt, mud, or oil prior to entering the track.
 - **1.3.3 Body Damage:**
 - Bodywork must remain securely attached. Tape (e.g., "racer's tape") may be used only for temporary emergency repairs during an event, subject to judgement of the event safety steward. Permanent use of tape to secure body panels is **prohibited**.
 - Significant body damage (e.g., crushed rockers, caved-in doors, or loose bumpers) must be repaired prior to the next event.
 - Missing bumpers, fenders, or headlights/taillights (or suitable blanking panels) are **prohibited**.
 - **1.3.4 Graphics & Numbers:**
 - Car numbers and class markings must be clearly legible and in good condition. Peeling, faded, or handwritten numbers are **prohibited**.

1.4 Fuel

- **1.4.1 Sanctioning Body Compliance:** Fuel type, octane rating, and additives must comply with the General Competition Rules (GCR) or Supplemental Regulations of the specific event sanctioning body (e.g., NASA, SCCA, ICSCC).

- **1.4.2 Ethanol Limit Exception:** Regardless of sanctioning body allowances, the maximum permitted Ethanol content is 20% by volume.
 - *Note:* E85 and ethanol blends exceeding 20% are strictly prohibited, even if the sanctioning body permits them in other classes.

2. Safety

- **2.1 Roll Cage:** Roll cages must meet ICSCC (Rule 1105.A.2) or SCCA (GCR Section 9.4.3) standards.
 - **2.1.1** 6-point to 8-point cage designs are permitted.
 - **2.1.2** No cage members may protrude through the firewall.
- **2.2 Fire Suppression:** A fire suppression system meeting sanctioning body general regulations is required.
- **2.3 Driver Restraint:** SFI/FIA approved harnesses and window nets are required per sanctioning body rules.
- **2.4 Master Switch:** An electrical master kill switch is required per sanctioning body rules.

3. Weight

- **3.1 Minimum Weight:** The minimum weight of the vehicle, including the driver (in full gear) and fluids at the end of a session, is **2,775 lbs.**
- **3.2 Ballast**
 - **3.2.1** Ballast may be added to meet the minimum weight requirement.
 - **3.2.2 Mounting Location:** Ballast must be mounted securely anywhere within the passenger compartment.

Note: Mounting in the trunk or engine bay is prohibited.
 - **3.2.3 Hardware:** To be considered "securely mounted," ballast must be fastened using Grade 5 / Metric 8.8 (or higher) bolts with backing plates to prevent pull-through.

4. Engine & Engine Bay

- **4.1 Internal Components (Strict Stock):**
 - **4.1.1** The engine must remain internally stock to OEM specifications. Internal lightening, balancing, or modification of rotating assemblies is **prohibited**.
 - **4.1.2 No Rebuild Policy:** Engine rebuilding that involves machining is **prohibited**.
 - Overboring, sleeving, or honing of cylinders to increase clearance is **prohibited**.
 - Cylinders must retain the OEM standard bore size (86.0mm).
 - Replacement pistons must be standard-size OEM units only.
 - **4.1.3 Cylinder Head & Valvetrain:**

- **4.1.3.1** The cylinder head must remain an un-modified OEM casting. Porting, polishing, extrude honing, or media blasting of intake or exhaust ports is **strictly prohibited**. Casting flash must remain present.
 - **4.1.3.2 Decking/Resurfacing:** Machining the cylinder head mating surface is **prohibited**. If a cylinder head is warped beyond OEM specifications, it must be replaced.
 - **4.1.3.3 Valvetrain:** Camshafts, valves, valve springs, retainers, and pivots/rockers must be OEM. Titanium valves or retainers are **prohibited**.
 - **4.1.3.4 Valve Job:** Multi-angle valve jobs are permitted to restore sealing, provided they are centered on the OEM valve guide. Blending the valve seat into the port ("bowl blending") is **prohibited**.
 - **4.1.3.5 Head Gasket:** Head gaskets must be OEM or aftermarket replacements of **OEM thickness**. Thinner "high compression" head gaskets are **prohibited**.
- **4.2 Induction System:**
 - **4.2.1** The air intake system, including the airbox and filter housing, must remain OEM.
 - **4.2.2** The "Sound Generator" tube and mechanism may be removed and the firewall hole plugged.
- **4.3 Exhaust System:**
 - **4.3.1** Exhaust manifolds (headers), catalytic converters, and cat-back exhaust systems are unrestricted.
- **4.4 Cooling & Accessories:**
 - **4.4.1** Aftermarket engine oil coolers and larger radiators are permitted.
 - **4.4.2** Oil baffles and pickup tube modifications (for reliability) are permitted.
 - **4.4.3** Plastic engine covers may be removed.
 - **4.4.4** Air conditioning components (compressor, condenser, lines, evaporator) may be removed entirely.
 - **4.4.5** Heater core lines may be looped or plugged, but the heater core itself must remain unless removal is required for roll cage installation.
- **4.5 Engine Management (ECU):**
 - **4.5.1** The ECU hardware must remain OEM. Aftermarket standalone ECUs (e.g., MoTeC, Haltech) are **prohibited**.
 - **4.5.2** ECU software mapping ("tuning") is permitted.
 - **4.5.3** "Pedal dance" simulators or "Trac-Box" devices are permitted.
- **4.6 Engine Mounts**
 - **4.6.1 Strict Stock:** Engine mounts must be OEM stock rubber. Aftermarket mounts (Polyurethane, Solid, etc.) are prohibited.
 - **4.6.2** Stiffening additives (e.g., window weld, void fillers) are prohibited.
 - **4.6.3** The location of the engine and transmission must remain in the OEM position; lowering or relocating the drivetrain is **prohibited**.
- **4.7 Wiring & Electrical:**
 - **4.7.1** The wiring harness must remain stock. Cutting, thinning, or removing unused plugs/wires from the main harness to save weight is **prohibited**.

- **4.7.2** The battery may be replaced with a lightweight unit (e.g., AGM, Lithium) but must be securely mounted. If located in the cockpit, it must be in a sealed marine-grade box.

5. Drivetrain

- **5.1 Transmission:**
 - **5.1.1** OEM Manual or Automatic transmissions are permitted.
 - **5.1.2** Internal gear ratios must remain OEM standard.
 - **5.1.3** Automatic transmission software tuning is permitted.
 - **5.1.4** Transmission coolers are permitted.
 - **5.1.5 Shifter & Shifting Mechanism**
 - **5.1.5.1** Short-throw shifters of the **lever-replacement type** are permitted (e.g., TRD, STI, Kartboy).
 - **5.1.5.2** The shifter assembly must remain in the OEM location and utilize the OEM mounting pattern.
 - **5.1.5.3 Prohibited:** Chassis-mounted shifters (e.g., CAE, IRP, Coolerworx) or any shifter that requires cutting the center console or transmission tunnel are prohibited.
 - **5.1.5.4 Shifter Bushings:** The rear shifter carrier bushing (stay bushing) may be replaced with an aftermarket Polyurethane or solid metallic bushing.
- **5.2 Differential:**
 - **5.2.1** Only the OEM Torsen Limited Slip Differential is permitted. Aftermarket mechanical LSDs (clutch-type, etc.) are **prohibited**.
 - **5.2.2** Final Drive Ratio: Permitted ratios are **4.10** or **4.30**.
 - **5.2.3** Differential coolers and high-capacity covers are permitted.
- **5.3 Clutch & Flywheel:** Aftermarket clutches and flywheels are permitted.
- **5.4 Differential & Drivetrain Mounts**
 - **5.4.1** Differential bushings and transmission mounts must be OEM stock rubber.
 - **5.4.2** Differential subframe inserts (e.g., Whiteline inserts) are prohibited.
 - **5.4.3** Rear Subframe bushings must be OEM stock rubber. Solid risers or aluminum subframe collars are prohibited.

6. Suspension

- **6.1 Shock Absorbers & Springs (Current Regulations: 2026–2027)**
 - **6.1.1 Permitted Shocks:** Shock absorbers may be replaced with off-the-shelf (OTS) units meeting the following criteria:
 - Must be Single-Adjustable (1-way) or Non-Adjustable.
 - Remote reservoirs are prohibited.
 - Must utilize OEM attachment points.

- Must have a published catalog number and be generally available (annual sales >100 units).
 - **6.1.2 Permitted Shock Examples:** Koni GTS, Bilstein B14, Bilstein B16 (single-way), Ohlins Road & Track (single-way), MCS 1-Way (Motion Control Suspension), RCE Super Street 1.
 - **6.1.3 Prohibited Shock Examples:** RCE Tarmac 2 (2-way adjustable).
 - **6.1.4 Springs (2026–2027):**
 - Spring rates, lengths, and manufacturers are **Unrestricted** (Open).
 - Helper/tender springs are permitted.
 - Coilover conversions are permitted provided they adhere to the shock rules in 6.1.1.
- **6.2 Future Regulation (Effective Jan 1, 2028)**
 - **6.2.1 Spec Shock Kit:** Effective January 1, 2028, the only permitted shock absorber kits will be the Bilstein B14 (PSS) or Bilstein B16 (PSS10). All other dampers will be prohibited.
 - **6.2.2 Permitted Part Numbers:**
 - Bilstein B14 (PSS): Part #47-228337 OR #47-330733.
 - Bilstein B16 (PSS10): Part #48-228299 OR #48-330725.
 - **6.2.3 Mandated Springs:**
 - Competitors must utilize the specific springs supplied by Bilstein within the permitted kits listed in 6.2.2. Substitution of springs (e.g., swapping for Swift or Hyperco linear springs) is **strictly prohibited**.
 - **Required Bilstein Spring Specifications:**
 - **Front:** Progressive Rate, main spring rate **257 lbs/in.**
 - **Rear:** Progressive Rate, main spring rate **378 lbs/in.**
- **6.3 Ride Height:**
 - **6.3.1** Minimum ride height is **4.0 inches**, measured from the lowest point of the rocker panel or frame rail to the ground with the driver seated.
- **6.4 Bushings**
 - **6.4.1 Stock Requirement:** All suspension, steering, and subframe bushings must remain OEM stock rubber.
 - **6.4.2 Prohibitions:** Polyurethane, Delrin, solid metal, or spherical bearing bushings are prohibited.
 - **6.4.3 Exceptions:**
 - **(A) Aftermarket Arms:** Non-OEM bushings/bearings are permitted **ONLY** if they are integral components of the specific aftermarket control arms or camber plates explicitly authorized in Sections 6.5 and 6.6.
 - **(B) Sway Bars:** Sway bar bushings may be OEM or the specific polyurethane bushings supplied within the permitted Eibach Anti-Roll Kit (See 6.7).
 - **(C) End Links:** Spherical rod ends or non-OEM bushings are permitted **ONLY** as integral components of sway bar end links (See 6.7.4).
- **6.5 Camber Plates & Upper Mounts:**

- **6.5.1** Front camber plates and top hats are unrestricted provided no modification to the chassis mounting points is required.
- **6.5.2 Permitted Examples:** OEM stock, Pedders offset mounts, Verus Adjustable.
- **6.6 Control Arms & Alignment Hardware:**
 - **6.6.1 Front Camber:** Camber bolts (OEM or Whiteline eccentric) are permitted.
 - **6.6.2 Rear Camber:** Rear camber adjustment may be achieved via **ONE** of the following methods (not both):
 - (A) Aftermarket threaded Rear Upper Control Arms (RUCA).
 - (B) Aftermarket adjustable Rear Lower Control Arms (LCA) listed in 6.6.3.
 - **6.6.3 Permitted Adjustable LCA Models:**
 - **SPC Performance: Part #67660 (Quantity: 2 required).**
 - **Whiteline: Part #KTA216A (Supplied as a complete pair).**
Note: The Whiteline "Motorsport" arm (Part #KTA139A) is prohibited to ensure parity with the stamped-steel SPC arm.
 - **6.6.4 Rear Toe:** Aftermarket adjustable rear toe links are permitted to allow for precise alignment.
 - **Permitted Models:**
 - **SPC Performance:** Part #67655.
 - **SPL Parts:** Part #SPL RTAEL FRS (Titanium Series Rear Toe Arms with Eccentric Lockout).

*Note regarding SPL: Competitors should use the **EL** (Eccentric Lockout) version to prevent alignment slip.*
 - **6.6.5 Front Control Arms:** The front lower control arms must remain OEM.
 - **6.6.5.1** Aftermarket replacement arms, extended ball joints, or roll-center correction kits are prohibited.
 - **6.6.5.2** Bushings must remain OEM rubber (per Section 6.4.1).
- **6.7 Anti-Roll Bars (Sway Bars):**
 - **6.7.1** Permitted bars include any OEM sway bar from an eligible model year, or Eibach aftermarket bars.
 - **6.7.2** Disconnecting sway bar end links is permitted.
 - **6.7.3 Eibach Part Reference:**
 - **Eibach Anti-Roll Kit (Front/Rear):** Part #82105.320
 - **Eibach Front Bar Only (25mm):** Part #82105.310
 - **Eibach Rear Bar Only (19mm):** Part #82105.312
 - **6.7.4 Sway Bar End Links:** Front and rear sway bar end links are unrestricted, provided they utilize factory mounting locations on the suspension and sway bar. Adjustable end links with spherical rod ends or polyurethane bushings are explicitly permitted.

7. Tires & Wheels

- **7.1 Spec Dry Tire**

- **7.1.1** The exclusive dry tire permitted for competition is the **Hankook Ventus RS4**.
- **7.1.2** Spec Dry tires may be used in wet or rain conditions at the competitor's discretion, unless the Race Director has declared a 'Wet' session and explicitly mandated the use of Rain Tires for safety.
- **7.1.3** Tire shaving is permitted.
- **7.2 Tire Size:** Maximum tire width is **245mm**.
- **7.3 Wheels:**
 - **7.3.1** Diameter: 17 inches.
 - **7.3.2** Maximum Width: 9 inches.
 - **7.3.3** Minimum Weight: **15 lbs** per wheel.
 - **7.3.4** Wheels must have a public catalog number.
- **7.4 Spec Rain Tire**
 - **7.4.1** The exclusive tire permitted for use as a dedicated rain tire is the **Continental ExtremeContact Sport 02**.
 - **7.4.2** Rain tires may be used at the competitor's discretion during any session, or as mandated by the Race Director during "Wet" declared sessions.
 - **7.4.3** Tire shaving or cutting of tread on rain tires is prohibited.

8. Brakes

- **8.1 Calipers**
 - **8.1.1 Permitted Calipers:**
 - OEM Stock sliding calipers.
 - OEM "Performance Pack" Brembo calipers.
 - Aftermarket 4-piston calipers (e.g., AP Racing, Wilwood).
 - **8.1.2** Calipers with more than four (4) pistons are strictly prohibited.
 - **8.1.3 OEM Performance Package Brembo Uniformity & Rotor Allowance:**
Competitors electing to utilize OEM Performance Package Brembo calipers or equivalent Toyota factory Brembo packages (collectively, "OEM Brembos") must install them on all four (4) corners. Mismatching or mixing OEM Brembos on one axle with stock sliding calipers or aftermarket calipers on another axle is strictly prohibited. All other vehicles may utilize any combination of calipers conforming to 8.1.1 and 8.1.2, including aftermarket 4-piston front calipers with OEM stock sliding rear calipers. Competitors utilizing the four-corner OEM Brembo setup may utilize aftermarket 1-piece replacement rotors (blank, slotted, or drilled) conforming to factory OEM Performance Package Brembo dimensions (326mm front/316mm rear outer diameter, 30mm front/20mm rear thickness). Two-piece (2-piece) rotors are strictly prohibited.
- **8.2 Rotors & Pads**
 - **8.2.1 Maximum Rotor Diameter:** The maximum rotor diameter is **300mm**, with the exception of vehicles equipped with OEM "Performance Pack" Brembo calipers, which may utilize the corresponding OEM-sized rotors (326mm Front / 316mm Rear).

- **8.2.2** Brake pads and fluid (DOT 4/5.1) are unrestricted.
- **8.2.3** Brake lines are unrestricted provided the OEM ABS system, booster, and master cylinder remain unchanged.
- **8.3 Exceptions & Wheel Weight**
 - **8.3.1** OEM Exception (No Penalty): Competitors utilizing OEM Brembo (Performance Pack) calipers are exempt from any wheel weight penalty and may adhere to the standard 15 lb minimum wheel weight.
- **8.4 Brake Cooling**
 - **8.4.1** Brake ducting systems are permitted for the front brakes only.
 - **8.4.2 Backing Plates:** OEM dust shields may be removed or replaced with aftermarket vented backing plates (e.g., Verus, APR) to accept duct hoses.
 - **8.4.3 Routing:** Flexible high-temperature hoses may be used to channel air from the front of the vehicle to the brake rotors.
 - **8.4.4 In-Line Fans:** Electric in-line blowers (bilge pumps) are prohibited. Cooling must be passive.

9. Body & Aero

- **9.1 Bodywork:**
 - **9.1.1** Body panels must remain OEM steel/aluminum. Lightweight replacement panels (carbon fiber hoods, fiberglass doors) are **prohibited**.
 - **9.1.2** Fenders may be rolled inside for tire clearance, but the outer profile of the fender must remain unchanged. Widebody kits and fender flares are **prohibited**.
 - **9.1.3** Plastic fender liners and splash guards may be removed.
 - **9.1.4** Seam welding of the chassis is **prohibited**.
 - **9.1.5 Fog Lights & DRLs**
 - **9.1.5.1** Fog light assemblies and Daytime Running Lights (DRLs) located in the front bumper may be removed to facilitate brake cooling intakes.
 - **9.1.5.2 Integrated Assemblies (2017+ Models):** For 2017–2020 models (Toyota 86 & Subaru BRZ), the entire integrated Fog Light/DRL housing and/or the black plastic bumper bezel (including the "triangular" 86 bezel) may be removed.
 - **9.1.5.3** The resulting holes may be used as air intakes for brake ducting hoses.
 - **9.1.5.4** Cutting of the main bumper skin, grille, or lower splitter area to create *new* air inlets is prohibited. Air must be sourced from the grille area or the factory fog light/DRL locations.
 - **9.1.5.5 FR-S Specific Note (2013–2016):** On Scion FR-S models, the front turn signal is located within the bumper cover. When removing fog light components for brake ducting, the **turn signal assembly must remain installed and functional**. Removing the turn signal housing to increase airflow is prohibited.
- **9.2 Hood & Trunk:**
 - **9.2.1** The OEM hood latch system must remain functional, OR it may be replaced with hood pins. If the stock latch is removed, hood pins are **mandatory**.

- 9.2.2 Trunk latches must remain functional or be replaced with pins/springs.
- 9.3 Towing:
 - 9.3.1 Tow eyes or straps are **mandatory** front and rear.
 - 9.3.2 Tow points must be accessible without removing bodywork and capable of towing the car's full weight.
- 9.4 Aerodynamics:
 - 9.4.1 Aftermarket aerodynamic aids (wings, splitters, canards, diffusers) are **prohibited**.
 - 9.4.2 Front lips are **prohibited**.
 - 9.4.3 OEM or OEM-style trunk cosmetic spoilers are permitted.
 - 9.4.4 The OEM Subaru tS Carbon Fiber wing is **prohibited**.
 - 9.4.5 Hood vents are permitted only if blocked/sealed on both sides.
- 9.5 Glass:
 - 9.5.1 Windshield and windows must be OEM glass or equivalent.
 - 9.5.2 Lexan front windshield is permitted if 1/4" minimum thickness.
 - 9.5.3 Side door glass may be removed entirely. If retained, the glass must be OEM or equivalent and must remain functional (can be rolled up/down) or be permanently fixed in the closed position.

10. Interior

- 10.1 Dashboard & Trim:
 - 10.1.1 The upper dashboard shell must remain installed and securely mounted.
 - 10.1.2 Lower dash panels, glovebox, center console, headliner, carpet, soundproofing, and rear seats may be removed.
 - 10.1.3 Driver and passenger door cards may be removed only if necessary to fit roll cage door bars. If removed, sharp metal edges must be covered/protected.
- 10.2 Driver Controls:
 - 10.2.1 The steering wheel is unrestricted. Quick-release adapters are permitted.
 - 10.2.2 **Steering Column Lock:**
 - 10.2.2.1 The steering column lock mechanism is **permitted to remain installed**.
 - 10.2.2.2 It is the sole responsibility of the competitor to ensure the steering lock does not engage while the vehicle is in motion or being towed.
 - 10.2.2.3 **Push-Button Start Advisory:** Competitors with Push-Button Start (Keyless Access) are **advised** to mechanically disable the steering lock mechanism (e.g., removal of the locking assembly or pin). In the event of a battery failure or Master Switch activation, the electronic steering lock cannot be disengaged, which may result in significant vehicle damage during towing/recovery.
 - 10.2.3 Pedal covers are unrestricted.
 - 10.2.4 A driver's side dead pedal/footrest is permitted.
- 10.3 Electronics & Data:

- **10.3.1** Aftermarket gauges (oil pressure, water temp, etc.) are permitted.
- **10.3.2** Data acquisition systems (Aim, Garmin, etc.) are permitted provided they are standalone and do not interfere with vehicle management systems.
- **10.4 Safety:**
 - **10.4.1** Airbags must be removed. Airbag wiring and sensors may be retained.
 - **10.4.2** Unused bracketry (e.g., rear seat brackets) may be removed only if it does not compromise chassis structural integrity.

11. Fuel System

- **11.1** Fuel pumps may be replaced but must not exceed OEM flow specifications.
- **11.2** Extended capacity fuel cells are permitted (refer to SCCA specifications).
- **11.3** Anti-starvation modifications (hydramats, surge tanks) are permitted subject to rules 11.4.
- **11.4 Fuel Starvation & Surge Tanks:**
 - **11.4.1 Anti-Starvation:** Passive in-tank solutions (e.g., Verus/Velox fuel door, Holley HydraMat) are permitted.
 - **11.4.2 Surge Tank Allowance:** Aftermarket external fuel surge tanks are **permitted**, provided they are separated from the driver's compartment by a metal firewall or sealed enclosure.
 - **11.4.3 Fuel Pumps:** Secondary external lift pumps are permitted only if utilized in conjunction with a permitted surge tank.