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- (d) Front lower control arm and strut rod bushings may be replaced by a concentric urethane bushing only.
 - (e) Rear Watts linkage may not be modified. However, the Watts link pivot bracket may be reinforced using Mazdatrix MZ-1-WATT or a similar double shear arrangement. The only purpose of the reinforcement will be to prevent the loss of control due to pivot bracket breakage. The Watts link axle pivot shall not be moved nor will the geometry of the Watts linkage be changed. The pivot bracket bushing will remain stock
 - (f) The leading mount of the rear trailing arms from the 84-85 models may be relocated 19 mm (center to center) higher to emulate the 79-83 models.
 - (g) Lip to 1 “dead coil” may be cut off the “dummy coil” spring in the right rear only, for the purposes of leveling the car. No modifications that affect the spring rates are allowed. No cutting of non “dummy coil” type springs allowed.

20. Fasteners

- (a) Fasteners are unrestricted provided they serve the same function as originally intended. Gaskets are unrestricted provided they serve the same function as originally intended. Any fastener that secures any butterfly plate in the carburetor or manifold must meet OEM specifications for length, size, thread, and type. Bolts holding the front sway bars and links may not be lengthened or shortened, however washers may be added and spacers may be lengthened or shortened.

21. Updating/Backdating

- (a) Cars may update/backdate components (i.e. a 1979 car may use 1984 body panels). Switching of components is only permitted within cars to the same make, model, body type, and engine size (i.e. no parts from a GSL-SE).

C 1316. PRO-3

A. General

1. Intent - It is the intent of the PRO-3 class to create a restrictive formula for BMW cars designed to emphasize driver ability rather than design and preparation of the car. The spirit of the formula will not allow any modifications that would increase the cost of competition, nor lend to an unfair performance advantage. The following rules are not intended as guidelines for the class but an actual list of allowable modifications. Unless specifically listed here, assume other modifications are prohibited.

2. Body Styles - All 1984 – 1991 BMW E30 series sedans, coupes and wagons fitted with the 2499cc M20 B25 BMW 6-cylinder motor, from here on referred to as E30 325i cars.
3. Safety - All cars must comply with ICSCC Production and/or SCCA GCR's safety rules. Roll cages must meet SCCA IT category specifications, attaching to the body at no more than 8 locations.

B. Allowable Modifications

1. General

- (a) E30 325i - Other than those items specifically allowed by the rules, no other part or component may be modified, removed, or disabled. All cars, engines and other OEM parts must be or must have been offered for sale in North America by BMW NA. Replacement parts must be OEM or others of equivalent OEM specifications found on North American 1987-1991 E30 325i. 1984-1988 325E vehicles wishing to run as a 325i are required to use the complete "i" engine, including wiring harness and ECU.

2. Body

- (a) All chassis and structure repair must be done as closely as possible to the factory specifications. No additional frame strengthening is allowed except where there is a strong historic argument for safety improvement. Body repair must maintain stock contours.
- (b) Doors, hood, trunk, and fenders must be stock. Interior fender lips may be rolled for tire clearance. Plastic fender liners may be removed. Hood and trunk latches and release mechanisms may be modified or removed, and/or retaining pins may be installed. The car must run with hood, doors, and trunk completely closed and secured.
- (c) Windshield must be OEM or equivalent glass. Windshield clips are allowed. Door glass and related assemblies may be removed from driver and front passenger doors. Side, rear door (if applicable) and rear glass may be replaced with plastic if secured with appropriate clips, straps and retainers.
- (d) Headlights and associated brackets, taillights and brake lights must be installed and functional. Protective headlight covers are allowed, but must be form fitting (e.g. thin plastic film) to each individual light bulb and must not serve to improve aerodynamics. The removal of fog/driving lights, turn signals and side marker lights is permitted; any resulting opening must be covered with a non-ventilating material.
- (e) Aerodynamic aids (front/rear spoilers, side skirts, and flares) are not allowed; except for those OEM parts available through BMW NA or equivalent.
- (f) Openings to duct air to the brakes may be modified, but not exceed the original design dimensions. The

stock engine under tray may be removed.

3. Interior

- (a) The dashboard pad must be retained. Glove box lid and any console component secured entirely to the floor may be removed. Any steering wheel may be used other than a wooden one. Any shift knob may be used. Gauges may be replaced or added. The wiring harness may be removed or modified provided it serves its original purpose. Window, mirror, computer display/switches, and associated wires may be removed. Any locking mechanisms for doors, trunk and fuel filler may be disabled and/or removed. Climate control knobs may be removed or replaced. Hoses, plumbing, and heater core (including the housing and fan unit) may be bypassed or removed. An auxiliary fan or blower may be added for the expressed purpose of defogging the windshield and/or rear window. Any interior mirror may be used. Air bag systems shall be removed.
- (b) The driver's seat and/or passenger's seat may be replaced with any other seat. Sun visors, passenger and rear seat and associated hardware, carpeting, insulation, headliner and sunroof trays, interior lamps, radios, speakers and trim panels may be removed. Rear deck must be sealed completely if fuel cell is located in trunk. Loose items such as floor mats, tools, spare tire, etc., must be removed.
- (c) Interior door and quarter panels, rests and handles may be removed. If removed, such gutting must be done with keeping a nice appearance in mind, and leave no sharp or

- 3. (c) hazardous edges. Functional latch and release mechanisms must remain in front doors, but may be modified or removed from rear doors if applicable. Factory intrusion bars must remain in all doors.

4. Weight and Ballast

- (a) A minimum weight for cars with driver will be honored at all times. Ballast is allowed, but must be located on the passenger floor, aft of the firewall and no further rearward than 1" of the rear stock seat bolt holes of the front passenger seat. Ballast shall be in segments no heavier than 50 lbs, and shall be capable of being removed to be weighed apart from the car. Each segment shall be fastened securely to the floor with a minimum of two (2) bolts, SAE grade 5 or better with locking nuts, with large-diameter, load distributing washers.

E30 325i minimum with driver is 2,650 lbs.

5. Engines

- (a) The engines used in Pro-3 will be stock BMW engines correct for the series in which they are installed. No internal engine

modifications will be allowed except for those outlined in these rules. Engines may be bored to a maximum of .040 inch over standard bore size. Factory replacement pistons or their equivalent (with the exception of diameter) must be used. Cast or forged equivalent pistons shall provide the same dome/dish/valve relief configuration, ring groove width and spacing, pin height relationship, and weigh no less than factory standard bore pistons. Piston rings are unrestricted. Valve guide material is unrestricted. Where a factory specification for original cylinder head thickness can be proven, a tolerance of .025 inch less than the service limit will be permitted. Under no circumstances may the compression ratio be increased by more than one-half (.5) point. The application and/or use of any painting, coating, plating, impregnating substance (e.g., anti-friction, thermal barrier, oil shedding coatings, chrome, anodizing, etc.) to any internal engine surface is prohibited. Factory or OEM equivalent rocker arms must be used but may be de-burred and/or polished to remove casting imperfections and improve reliability. Removal of material (lightening) beyond the minimum to accomplish this task is prohibited. Head studs may be used in place of the OEM stretch head bolts, provided the studs perform the same function as the head bolts. All engine components not otherwise listed in these rules shall meet factory specifications for stock parts. One (1) engine stay rod may be added. The Stock ECU containing the BMW part number ending in: 153, 173, 380, 524, 525 must be used without modification except for the replacement of the "ECU chip" with a standard performance chip from Dinan, Conforti (labeled as Bonneville Motorwerks or Turner Motorsport), or Mark Dsylvia. The ECU may not be modified, and the chip must be used with software as provided by Dinan, Conforti, or Mark Dsylvia in a standard program readily available to anyone. The aftermarket chips may NOT contain a custom program. The engine harness must be stock, except for allowable repairs that maintain the original continuity of wires and all of the stock sensors must operate as stock. No additional or alternate sensors may be used that interfere with, influence, or modify the operation of the ECU and stock engine wiring harness. Data acquisition and storage of engine parameters is allowed, however, except for an RPM pickup wire, no additional sensors, wires, or equipment of any kind may be connected to the ECU or chip.

On-board adjustability of engine these parameters is not allowed. E30 325i required engine is the North American specification 2499cc M20 B25 injected 6-cylinder.

- (b) The alternator, power steering (if so equipped), and crankshaft pulleys must remain their stock diameter and material. Accessory drive belt shall remain the stock V-belt design. The alternator must be working and must be charging according to the manufacturer's specifications while the vehicle is running.
- (c) Balancing and blueprinting are allowed. Lightening

of parts beyond the minimum required to balance is prohibited. Cylinder head port matching is permitted, but no material may be removed further than 1 inch in from the manifold mounting face(s).

- (d) All engine breathers and coolant overflow lines must vent to a catch tank of at least one-litre capacity.
- (e) Any engine lubricant may be substituted; any lubricant additive is unrestricted. Oil pans, pan baffles, windage trays, oil lines and filters are unrestricted. A pressure accumulator such as an Accusump may be used. Any lines that pass through the passenger compartment must be metal or metal braided except for the oil pressure gauges. All lines must be securely fastened and safely routed. No dry sump system may be used.
- (f) A single engine oil pan skid plate may be added. It shall be made from a single piece of aluminium or steel and shall serve no other purpose but to protect the engine oil pan. It shall not be shaped in a way to improve aerodynamics or used as ballast and may not exceed 20" wide by 24" long, by 3/16" thick. The leading edge must be attached to the lower radiator support and the trailing edge attached to the front subframe.

6. Fuel System

- (a) Only 100% petroleum based pump gas will be allowed. No racing or aviation fuels, or any other fuel additives are allowed.
- (b) Fuel pumps, pressure regulating valves, filters, lines, and hoses are unrestricted. Fittings may be modified only for the addition of an AN fitting. Pumps may not be mounted inside the passenger compartment. Any fuel line that passes through the passenger compartment must be metal or metal braided. All lines must be securely fastened and safely routed. No fuel coolers, stock or otherwise, may be used
- (c) A fuel cell may be used, but must be constructed and certified in accordance with FIA FT-3 or higher specifications. All safety fuel cells shall consist of a foam-filled fuel bladder enclosed in a metal container of .036 inch steel or .059 inch aluminium that fully surrounds the bladder. Internal body panels may be modified to accommodate the installation of fuel cells as long as the modifications serve no other purpose. There must be a metal bulkhead between the driver/passenger compartment and the compartment containing the fuel cell. The fuel cell must not be installed any closer to the ground than 6 inches, unless

enclosed within the bodywork or OEM floor pan. The fuel cell may not be installed forward of the factory fuel tank. The installation of more than one cell is permitted, however total fuel capacity is restricted to no more than twice the volume of the original factory OEM fuel tank. A positive locking fuel filler cap shall be used. Fuel filler lines, pickup and return openings and breather vents shall be designed and installed so that if the car is partially or totally inverted, fuel shall not escape.

- (d) Fuel injection manifold(s) shall not be replaced with manifold(s) from a different model, type, or engine size. Fuel injectors shall remain stock. External throttle linkage to the standard fuel injection may be modified or changed.

7. Air Cleaner / Intake

- (a) Air cleaner assemblies, intake hoses, tubes, pipes, resonators, intake mufflers, housings, filters, etc., located ahead of the air metering/measuring device (i.e., air flow meter assembly) may be modified, removed or replaced. Velocity stacks, ram air or cowl induction is not allowed unless fitted as original equipment. Modifications to the front grill and headlight area for the purpose of cold air induction are not allowed. Air measuring/metering devices (i.e., air flow meter) shall be the swinging gate – potentiometer type as provided on E30 BMW 325i cars and may not be modified or replaced. The stock intake manifold shall be used. No internal polishing or coating of the manifold is permitted, and port matching is restricted to no more than 1 inch in from the cylinder head mounting face(s).
- (b) Water to an intake manifold may be blocked or plugged.

8. Exhaust

- (a) Exhaust emission control devices such as air pumps, associated lines, nozzles, canisters, and electrical/mechanical EGR devices may be removed. Any holes remaining after removing such devices shall be completely plugged. If fitted catalytic converter(s) may be removed.
- (b) Exhaust manifold(s)/header(s) are unrestricted. Exhaust tubing design is unrestricted, as long as the exhaust exits behind the driver, directed away from the car.

9. Ignition

- (a) Any coil that fits in the stock bracket may be used. Any spark plug and ignition wire set may be used. All other ignition components must remain stock.

10. Battery

- (a) The battery may be moved from its stock location as long as it is not placed within the passenger


compartment. The battery may be replaced with any 12-volt battery. The positive terminal on the starter solenoid shall be covered. (Fall 2010)

11. Cooling

- (a) Any radiator may be used provided it fits in the stock location and requires no body or structural modification to install. Fans may be removed or added. Manual/automatic fan switches may be modified or removed. Thermostats are open. Oil coolers may be added, modified or replaced. A/C systems and components may be disabled or removed.
- (b) Wire mesh screens with a minimum opening of 3/16" may be fitted to protect the engine radiator and oil cooler. All screens must be fitted behind all bodywork.

12. Drive Train

- (a) A BMW OEM or dimensionally equivalent steel flywheel must be used. Any clutch disc and or all-steel pressure plate of the stock diameter may be used provided they bolt directly to an unmodified stock flywheel. Multiple disk clutches are prohibited. Lightening of the flywheel and pressure plate beyond the minimum for balancing purposes is prohibited.
- (b) Any stock transmission, including automatics, correct for the body series may be used. Internal transmission components and gears may not be modified. Shift linkage may be modified or replaced. Transmission cooling lines and radiators may be modified or added. Any lubricant or additive may be substituted.
- (c) Only OEM drive shaft and drive shaft components may be used. The drive shaft vibration damper attached between the transmission and drive shaft may be removed.
- (d) The differential housing must be a stock OEM unit, correct for the body series. The ring/pinion gears are limited to the following OEM ratios: 3.73, 3.91, 4.10, 4.27, 4.44 and 4.45; and must fit in the stock housing. Limited slip devices are unrestricted. Any lubricant or additive may be substituted. Cooling covers, lines and radiators may be modified or added.
- (e) Engine, transmission, and rear differential mounting material is unrestricted. Drive train mounts of alternate material and design may be used, but there can be no change to the engine's fore, aft, rotational or vertical location from stock. Drive train mounts must attach in their stock location using the stock mounting brackets. With the exception of the transmission brackets as outlined herein, the brackets




may not be modified to permit use of an alternate mount. An alternate transmission mounting bracket may be used in the event the rear factory mounting tabs have been broken off, provided the alternate mounting bracket maintains the stock position and configuration of the transmission and serves no other purpose.

13. Wheel Studs

- (a) Wheel lug bolts, studs and lug nuts are unrestricted, but must be made of steel and they may not be smaller than stock.
- (b) Wheel spacers may be used.

14. Wheels and Tires

- (a) Wheels are specifically restricted to 14" or 15" diameter and maximum width of 7", with a minimum weight of 9.5 lbs each. Manufacturer is free. A spec tire will be used on all four wheels at all times. If the PRO-3 spec tire becomes unavailable during a racing season, the licensed PRO-3 drivers will meet with the Race Steward and assist the Race Steward in selecting a new spec tire. If the spec tire changes during a racing season, the old spec tire will remain legal until the end of the season. PRO-3 drivers are required to have enough spec tires on hand to complete an event/race weekend. Failure to use the spec tire will result in loss of qualifying time and/or race disqualification.



The PRO-3 spec tire is Toyo Proxes RA1 or RR and must be one of the following sizes: 225-50/14, 225-45/15 or 225-50/15. Shaving of the spec tire is allowed.

15. Brakes

- (a) All cars must use the correct stock rotors and calipers available for the model. Hot/cold treating of the rotors is allowed. Brake pads, linings and fluid are unrestricted. Brake lines may be replaced with metal braided lines. Backing plates may be removed or modified. Rubber OEM guide bushings may be replaced with a solid guide bushings. An adjustable proportioning valve may be used to limit pressure. The master cylinder and brake booster must remain stock and unmodified. The booster vacuum line may be disconnected. Parking brake mechanisms and components may be removed. Air ducts may be used for brake cooling. Anti-lock Brake Systems must be disabled or removed.

16. Suspension and Steering

- (a) Power steering components may be disabled or removed.

- (b) Shock absorbers may be replaced provided they attach to the original mounting points. The number and type of shock absorbers shall be the same as stock. The interchange of gas and hydraulic shock absorbers is permitted. Remote reservoir shock absorbers are prohibited. External adjustments of shock control shall be limited to two (2). No shock absorber may be capable of adjustment while the car is in motion. MacPherson struts may use substitute struts, and/or may use alternate inserts. Spring seat ride height location may be altered from stock. Remote reservoir struts and/or inserts are prohibited. Springs of any origin may be used, provided they are of the same number and type as originally fitted, and that they shall be installed in the original locations using the original system of attachment. The joining of two or more coil springs by any means is prohibited. Devices to limit droop are permitted as long as it is the only service they provide. Spacers, including threaded units with adjustable spring seats, may be used with coil springs. Coil-over threaded body/struts are permitted. Minimum ride height shall be 5" measured from the flat of the rocker panel, not including the pinch weld, jack points, or suspension mounting hardware.
- (c) Any anti-roll bar(s) and associated mounting bracket(s) may be added or substituted, provided their installation serves no other purpose. The mounts for these devices may be welded or bolted to the structure of the vehicle. Heim rod ends may be fitted. Bar attachment and pivot points on the chassis and control arms shall remain stock, except as provided for in these rules. (Fall 2010)
- (d) MacPherson strut front suspensions may decamber the wheels by the use of eccentric bushings at control arm pivot points, and/or by the use of slotted adjusting plates at the top mounting point. If slotted plates are used, they shall be located on existing chassis structure and may not serve as reinforcement for that structure. Material may be added or removed from the top of the strut tower to facilitate installation of the adjuster plate. Caster may be adjusted by means of shims or eccentric bushings, and/or at the upper strut mounting point/plate. Independent rear suspension mounting holes may be slotted and reinforced for purposes of camber and/or toe adjustment. Bushing material, including that used to mount a suspension subframe to the chassis is unrestricted. No other relocation of any suspension component or mounting point is permitted. Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s). The front suspension wishbone retaining bracket and bushing (aka, "eyeball") may be replaced with

alternate designs, but must be mounted to the chassis in the original location as the stock bracket and may only serve to allow adjustment of caster.

- (e) A cross-brace may be added from one shock or strut tower to the other. The brace and/or its mounting bracket can not be anchored to any other part of the car and shall serve no other purpose.

17. Fasteners

- (a) Fasteners and gaskets are unrestricted provided they serve the same function as originally intended. Any replacement fastener used in an OEM application (example: flywheel bolts) must meet OEM specifications for length, size, thread, and type.

18. Updating and Backdating

- (a) Cars may update/backdate components as long as components come from vehicles covered in 1316.A.2 and 1316.B.1.a (example: a 1989 car may use 1987 bumpers, but E30 M3 brake components cannot be adapted for use on an E30 325i).

- C **1317.** ITE cars shall conform to current Oregon Region SCCA rules.
- C **1318.** Formula Mazda. This class shall run under current SCCA rules.
- C **1319.** Spec Miata. This class shall run under current Oregon Region SCCA rules, except if the spec tire changes, the previous seasons spec tire will remain legal for the following race season.
- C **1320.** S2. This class shall run under current SCCA rules.
- C **1321.** Sport BMW. Deleted Fall 2006.
- E **1322.** Honda Challenge 4. This class shall compete under current year NASA rules with the exception of NASA required safety equipment. Current year ICSCC Competition Regulations, Section 11 - Technical and Safety Inspections shall apply to all vehicles and competitors of this class.
- C **1323.** Club Spec Miata (CSM). These rules are not intended as guidelines or suggestions and they will be vigorously enforced. All permitted components / modifications below shall not perform any additional function or purpose other than the original part.

A. Make of Car

- 1990 - 1993 Miata 1600 cc @ 2300lbs (with driver)
- 1994 - 1997 Miata 1800 cc @ 2350 lbs. (with driver)
- Ballast must be mounted on the pan in the area normally under the passenger seat and/or on the pan in the passenger front footwell area.
- 1994 - 1995 1800 cc cars must use a 45 mm throttle restrictor. Mazdaspeed, **Part # 0000-06-9945.**
- 1996 - 1997 1800 cc cars must use a 45 mm throttle restrictor. Mazdaspeed, **Part # 0000-06-9945.**