

2. Approved Weights

a. All race cars in the Sport, Prepared, Spec E36, and E30 M3 Touring classes must meet or exceed the minimum weight as specified in Appendix D. The race cars may be weighed at any time during the event. A car found to be underweight after a practice or qualifying session must add ballast according to the ballast placement rules in order to meet the minimum weight requirement and may be penalized. The Tech Steward or Competition Steward will prohibit such a car from competing in blatant cases or, at a minimum, will require the race car to start the next race from the back of the grid. A race car found to be underweight after a race session will be disqualified from race results. A notation will be made on the current event page of the vehicle's logbook. The car shall be weighed at the next event and must meet minimum weight requirements before being allowed to compete. The Competition Steward may also apply other penalties under the 13/13 Rule.

b. Current weight limits are based on published BMW NA or BMW AG weights, which are found in Appendix D, Vehicle Classification and Specification. (1) Vehicles of the same engineering designation (such as E36, E46), type (such as 325, 330, 318), configuration (such as two-door, four-door, all-wheel drive) and horsepower will be weight equalized to the lowest of the model year factory weights.

~~c. Sport class race cars are measured without the driver or their personal safety gear and must meet or exceed the appropriate stock weights published herein.~~

~~d. Prepared, Spec E36, and E30 M3 Touring class race cars are measured with the driver and their personal safety gear in the vehicle and total weight must meet or exceed the allowed prepared weight published herein.~~

5. SPORT CLASSES

A. The **SPORT** classes provide an entry point for club racers which accurately reflects typical track car modifications. The focus will be on safety, budget, and reliability. Updating or backdating is allowed provided the converted vehicle meets ALL specifications of the vehicle to which it is converted.

B. **Sport classes** are based on factory-published horsepower and weight. Sport class race cars are weighed with the driver and safety equipment in the car and total weight must meet or exceed the allowed prepared weight published herein.

C. Consumable items normally subject to wear and tear under street driving conditions such as belts, wiper blades, and filters may be replaced with replacement parts available from commercial retail sources.

D. Engine

1. All component part numbers must be identical to those contained in the engine as delivered from the factory to the US market, except as noted in the rules below.

2. The engine must be as delivered from factory. Internal and external hardware (nuts, bolts, etc) may be replaced with OE equivalent or better items performing the same fastening functions (for example, studs/nuts/washers replacing bolts). All hardware must be the same size/diameter and weight as OE. No other modifications of any type are allowed after the air filter or before the exhaust port.

3. Air intakes, air filters, and air boxes may be replaced. Intake plenums must remain stock for the year and model car being raced (i.e. a 96 M3 cannot use a 95 M3/M50 intake plenum).

- a. Vehicles with a design that houses both the mass air meter (for example, E46, E90) and the air box as a single integrated housing may change the housing, transferring the OE air flow meter to the new air box. Air Mass meters must remain stock.
4. The engine must run on the fuel type consistent with the original BMW factory engine design (either gasoline or diesel). Selection and mixing of commercially available leaded or unleaded fuel and octane ratings are free. Commercially available octane boosters are allowed. Ethanol (other than that normally added to gasoline available to the public), methanol, toluene, nitromethane, superoxygenated fuels, nitrous oxide, and/or custom-mixed fuels are not allowed.
5. Stock fuel injection for the chassis, model, and engine must be retained, except models sold in the US market with in both fuel injected and carbureted versions which are given the following allowances:
 - a. Mechanical fuel injection may be replaced with carburetors.
 - b. Carbureted cars may substitute up to maximum of 40 mm downdraft. Jets and emulsion tubes are free.
 - c.. Modifications to the intake manifold to accept a 40 mm downdraft are allowed.
6. Engine management systems other than the stock DME are not allowed. Replacement performance chips for OBD-I and earlier formats, as well as software downloads for OBD-II format, are unrestricted with the following exceptions:
 - a. The remaining DME internal configuration must remain as stock and retain the correct model version identification and variant code.
 - b. External or "piggyback" devices such as the Split Second that either alter or modify sensor or metering signals into or out of the DME are prohibited.
 - c. Substitute engine management systems such as MOTEC, EFI, or any Alpha-N system are prohibited.
7. Exhaust system may be modified or substituted as follows:
 - a. Exhaust manifolds/headers must remain stock, as delivered from the factory to the US market for the year and model car as raced, except for newer model cars equipped with catalytic converters integral to the exhaust manifold which are subject to modification as detailed below.
 - b. Catalytic converters may be removed. In cars equipped with an exhaust manifold containing a catalytic converter, the exhaust manifold may be modified from the leading edge of the factory catalytic converter backward, and the converter removed.
 - c. Exhaust configuration is free after the factory exhaust manifold/header and the exhaust must exit the bodywork only utilizing one or more of the factory exit locations.
8. Machining for balancing purposes only is allowed.
9. All pistons, including aftermarket replacements, must be factory replacement equivalent and match factory dome, dish, valve relief depth, ring groove placement and dimensions, weight and wrist pin height, etc.; compression must meet factory specifications.
 - a. The maximum allowable overbore is limited to the largest available factory replacement piston, not to exceed .020 inch (0.50 mm).
10. Hoses – Any hose or line passing through any part of a bulkhead or panel must be grommeted to prevent abrasion or use an appropriate metal bulkhead fitting.

- a. Hoses must be properly anchored to the body or panels at least every twenty-four inches using protective, cushioned line clamps or factory type line retainers.
 - b. SAE pressure safety factor will be a minimum 4 to 1 factor (if your engine develops a max oil pressure of 100 psi, use hose that has a minimum 400 psi working pressure)
 - c. Hoses shall be temperature-rated to a minimum of 300 °F.
 - d. No slip-on or push-on connections are allowed except as supplied by the factory.
11. Accusumps and oiling system changes – Accusumps are permitted.
12. The oil pump and associated pick-up may be replaced with an OEM bolt on replacement.
- a. Dry sump systems are not permitted.
13. The oil pump shaft and sprocket may be altered or replaced for reliability as long as improved reliability is the only purpose and result of the alteration. The bolt may be safety-wired, or the shaft and sprocket may be replaced with aftermarket units that have improved attachments (for example, splined). The sprocket must remain the same size and have the same number of teeth as the original part.
14. Oil pan baffle and oil pan are free
15. Motor and transmission mounts may be replaced with aftermarket parts of any (including metallic) material, but must be the same height as stock for the model year and options of the vehicle.
16. Fittings and adaptors required to add supplementary gauges are free.
17. Spark plugs and spark plug/ignition wires are free. Coils and coil packs must remain stock.
18. Aftermarket water pumps that increase flow/efficiency and are of the same design type as stock are allowed. The factory stock pulley must be retained and no other changes are allowed to accommodate any pump, factory or otherwise.
19. Cruise control systems may be completely removed.
20. Emission control systems, in their entirety or in part, may be disabled and/or removed.

E. Cooling System

1. Any radiator may be used, providing it is mounted in the original location, maintains the same plane as the original core and requires no body or structure modifications to install. Screens of 0.25-inch minimum mesh may be mounted in front of the radiator and/or oil cooler and contained within the bodywork.
2. The mechanical (engine driven) cooling fan and fan clutch may be removed or replaced. Electrically operated puller or pusher fans with manual or automatic actuation may be fitted.
3. Cooling system hoses may be replaced by those of alternate materials.
4. Thermostats and thermostat housings may be replaced by units with an alternate operating temperature or material.
5. The coolant expansion tank may be replaced with an alternate BMW OE tank or a metallic tank of equivalent capacity and function of a BMW OE tank.
6. Engine, transmission, and differential oil coolers are free. Coolers must meet the following specific installation requirements:

- a. All coolers mounted below the factory water radiator must be protected from debris intrusion with steel screening.
- b. Additional, non-stock parts necessary to install oil coolers are permitted. Parts to attach engine oil coolers are limited to those that essentially maintain stock oil filter configurations.

F. Suspension

1. Nonadjustable, single, or double-adjustable shocks/struts are allowed. Remote reservoir shocks/struts are prohibited. Rear shock absorbers that are originally equipped from their manufacturer with spherical bearings in their lower connection may be used.
2. Adjustable front camber plates/slotting to achieve suspension settings is allowed. Pick-up points cannot be welded or machined for adjustment purposes.
3. Rear camber adjustment is allowed.
 - a. Suspension components that control rear camber may be replaced with aftermarket components to provide this adjustment.
4. Height-adjustable front coil-over setups mounted in the original location are permitted.
5. Rear springs are free but must be mounted in the original location. Adjustable rear spring perches may be used to adjust ride height so long as they mount in the springs' original manner and location. Height-adjustable rear coilovers are allowed only in cars originally factory equipped with coilover rear suspensions.
6. Sway bar sizes, configurations, end links and end link connectors are free. Adjustable sway bars are allowed so long as they cannot be remotely adjusted or adjusted by the driver from inside the car.
7. Suspension bushing material is free.
 - a. Bushing material does not include replacement of bushings with spherical bearings or rod ends such as Heim ends except as noted below.
 - b. Solid bushings are allowed if fixed in place and allow rotation in a single plane or axis.
8. Spherical bearings are permitted in the following components.
 - a. Front upper strut mounts/camber plates.
 - b. Upper and lower rear shock mounts.
 - c. Rear lower control arms.
9. Devices with spherical bearings intended to maintain the linear alignment of the rear springs throughout their expansion/compression range are allowed.
10. Any bolt-in front strut tower brace is allowed. A bolt-in or welded-in rear shock/strut tower brace is permitted.
11. Additional welding of sway bar pick-up points and trailing arm pickup points for reinforcement and safety is allowed. Pick-up points must remain as per factory placement. Front sub-frame, motor mount areas, control arm pick-ups, rear lower control arms, idler arm, and steering box mounts can be strengthened for safety with additional welding.
12. For those cars that can accept them without modification to the chassis, the component, or the pickup points, E36 M3 front lower control arms are allowed.

G. Tires and Wheels

1. Any DOT-approved, nationally marketed, generally available, "road race version" tire is allowed. "V" or higher speed-rated tires are required for all cars, except those for which "V" rated tires are not universally available. In all cases, the speed rating of the tire must be equal to or greater than the speed potential of the vehicle.
2. Rain tires – Any rain tire must be based on a DOT approved tire (for example, a grooved, DOT-approved Hoosier RS04 tire would be legal). Any other treaded tire permitted under Paragraph A may also be used as a rain tire. Requests for approval of any other rain tires must be submitted to the National Technical Steward.
3. Any tire used must be, or have been (for discontinued designs), readily available for purchase by all participants on an equal basis through typical retail market outlets.
4. Tire tread shaving is permitted.
5. Tread must have adequate rubber to ensure safely completing the full race session. Any tire deemed "unsafe" by the BMW CCA Club Racing Stewards will be disallowed and the car will be prohibited from participation until the problem is resolved to the approval of the Stewards.
6. Any wheel and DOT-approved tire combination in which the top of the tread section is fully covered by the factory bodywork when viewed from above is allowed.
7. Spacers may be used. Spacers must be hubcentric, or hub extenders must be used.
8. Exterior fender and wheel openings shall remain unmodified. Inner fender lip rolling, flattening, or grinding at any wheel opening is allowed for tire clearance purposes, so long as the exterior profile remains unmodified. Fender flaring is prohibited, exception for 1600, 1800 and 2002 models which may use BMW OEM Turbo flares or aftermarket dimensionally equivalent flares.

H. Brakes

1. Brake calipers and caliper brackets must be of the same type and size as original for the year and model of the car.
2. Caliper mountings and bushings are free.
3. Brake rotors must be the same diameter and thickness as originally supplied on the car year and model as raced. Grooving and slotting of rotors is allowed.
4. Ducting of air to rotors is allowed. Removal, modification, or replacement of dust shields (backing plates) is allowed.
5. Brake pad material is free.
6. Brake fluid is free.
7. Rubber brake lines may be replaced with braided steel over Teflon.
8. The emergency brakes, mechanisms, and controls may be removed.

I. Differential

1. Ratio of the ring and pinion is free.
2. Non-factory limited slip of any type is allowed, including welding of the gears.

3. Differential mount bushings are free.
4. Finned, larger capacity differential covers may be used.

J. Transmission/Flywheel Assembly

1. A US-spec, BMW OE transmission, as originally equipped for the chassis, model, and year must be used.
 - a. No changes are permitted to the case or internals.
2. The shifter mechanism may be modified or replaced.
3. Flywheel assemblies, including clutch related items, must retain stock configuration and weight.
4. Clutch and pressure plate shall have the same weight and have the same size and number of clutch disk(s) as originally equipped for the chassis, model, and year. Aftermarket replacements are allowed but must be otherwise identical to the stock configuration and weight.

K. Body/Chassis/Interior

1. Chassis/body must be the same material as supplied by the factory.
2. Any body repair or reinforcement must follow that as described in the factory authorized repair manual or bulletins.
3. Ducting of air to rotors and engine – Fog lights/covers may be removed to facilitate ducting of air to brake rotors and engine.
4. Fog lights may be removed and replaced with blanking plates.
5. Headlight removal is not permitted.
6. Seats are free subject to the safety guidelines contained in the Safety section of these rules.
7. Steering wheels and shift knobs are free. Quick-release steering wheel attachments are allowed. Steering locks must be disabled.
8. Aftermarket front one-piece bumper/air dam units are allowed provided the original crash bar is maintained OR the assembly is otherwise reinforced to equal strength as the original assembly.
 - a. The material composition of the aftermarket unit is unrestricted.
 - b. Stock factory appearance for a variation of the specific chassis code must be retained (ie. E36 325 may use an M3 bumper cover, but may not use an E46 M3-look cover or any other aftermarket body kit. Likewise, an E30 325i may use an E30 M3 front bumper support and cover).
9. Aerodynamic Devices
 - a. Front Splitters, Spoilers, and Air Dams - Aerodynamic parts allowed on the front of the car are limited to only those that came as factory standard for US market cars, excluding special production models, for the given chassis code being raced (ie. An E36 325 can use an E36 M3 factory chin lip when using the M3 front bumper, but neither the E36 325 or E36 M3 may use the E36 M3 Lightweight splitter assembly. Likewise, no E30 can use E30 M3 Evo parts)
 - b. Rear Spoilers, Wings, and Diffusers – Aerodynamic parts allowed on the rear of the car are limited to unmodified profiles of only those parts that came as factory standard for US market cars, excluding special production models, for the given year and model being raced (ie. An E30 M3 may

use the stock US-model rear wing, An E30 325i may not use an E30 M3 wing due to the modification required for fitment, and an E36 M3 may not use any rear wing/spoiler as all versions were either from special production models (M3 LTW) or dealer-installed options)

10. Modifications to the underside of the vehicle for the purpose of improving aerodynamics are not allowed (for example, diffusers). Any aerodynamic pieces originally factory-installed on the year and model of car as raced are permitted.

11. Interior may be removed, except dash and door panels, providing the car "conforms to the spirit" of the BMW CCA Club Racing Program (that is, it is aesthetically pleasing). The "interior" is defined to include carpeting, seats, headliner, sound-deadening materials, trim panels, trunk trim, console, radio, entertainment and navigation systems, speakers, sun visors, door mechanisms, and the sunroof mechanism.

a. The OE driver and passenger door panels may be replaced with a metallic panel with a minimum thickness of .060 inch or a comparable panel constructed of plastic or composite material, securely attached to the door.

b. Window glass and window actuator mechanisms may be altered or removed.

c. The dash must be intact but anything attached to it (vents, glove box, airbag cover (where appropriate), etc.) may be removed.

d. If the sunroof mechanism is removed, the panel must either be securely sealed (bolted/welded/bonded) or secured in place with two retaining straps one inch wide and extending three inches beyond the sunroof opening on each side. The panel must be flush with the roofline.

(1) The sunroof panel must be of the same material as originally manufactured except if the original panel was made of glass, then an alternate panel of metal must be installed.

e. In cars with a sunroof cassette the entire cassette may be removed.

12. Any door adjacent to a seat equipped with seat belts or harness must be capable of being opened from both inside and outside the car.

13. Wiring to components that may be removed according to the rules may also be removed.

14. Fuses and relays for unused components may be removed.

15. All heating and air conditioning components may be removed.

16. Ducting to provide airflow to additional coolers (transmission, oil, and differential) is permitted.

17. Windshield washer fluid reservoir, pump, fluid lines, and nozzles may be removed.

18. The steering column may be mounted to the optional roll cage front cross bar (A to B as indicated on the Roll Cage Diagram), if installed.

19. Spare tire, tools, and associated assemblies may be removed.

20. The interior mirror may be replaced with any interior mirror meeting or exceeding the visibility of the factory part.

21. The battery size, type, chemistry, and weight are free, but must be 12-volt. Additional battery hold-downs are encouraged. Batteries must remain in their original location except for 2002 and E21 cars. E30 cars in which the battery was originally in the engine compartment may relocate the battery to the standard E30 trunk location.

22. E36 chassis vehicles may use BMW part 51 71 8 410 212, x-brace.
23. Engine undertray (single or multiple sectioned) may be replaced in its entirety with an aftermarket piece(s) that matches the form, fit, and function of the original piece(s).
24. Fuel filler restrictors may be removed from the fuel filler neck.
25. Fender well liners may be removed.
26. All E30 chassis cars may use the factory E30 convertible front reinforcements.

L. Fuel System

1. Fuel cells may be used. If a fuel cell is used, the stock tank may be retained or replaced. If retained, only one of either the fuel cell or stock tank may provide fuel for combustion. In such cases the remaining storage source (cell or tank) must be empty of any and all substances, except that the fuel cell may retain the bladder and foam.
2. All safety fuel cells shall be constructed and certified in accordance with FIA FT-3 specifications. All safety fuel cells shall consist of a foam-filled fuel bladder enclosed in a metal container at a minimum.
 - a. At a minimum, all fuel bladders shall be constructed in accordance with the FIA FT-3 or higher (FT-3.5, FT-5, etc.) specifications. Foam internal baffling is required.
 - b. The bladder shall be installed in a container of .036-inch steel, .059-inch aluminum, or .125-inch Marlex, fully surrounding the bladder.
 - c. Fuel cell bladders require recertification by the manufacturer after five years. Only one recertification good for two years is permitted, giving bladders a seven-year total life after which they must be replaced.
3. Fuel cells shall be located within twelve inches of the original fuel tank location, except in models where the original fuel tank is located beneath the rear seats, in which case the cell must be mounted in the trunk. Additional reinforcement may be added to support the fuel cell, but such reinforcement shall not be attached to the roll cage in Sport and Prepared classes. The floor pan may be modified for installation but not for aerodynamic benefit. There shall be a sealed metal bulkhead between the driver/passenger compartment and the compartment containing the fuel cell.
4. For cars in which the factory stock tank is non-metallic, all factory-installed heat shields must remain intact.
5. A second fuel pump is allowed.
6. A mechanical fuel pump may be replaced with an electrical fuel pump provided that it is wired so that it is controlled by the ignition system, to ensure shut down in the case of an accident requiring electrical cut-off.

M. Data Acquisition

1. Additional data acquisition devices, including gauges, are permitted in Sport Classes, as long as the driver is not able to adjust any setting on the vehicle at any time while the car is in motion. These devices are to be used for information gathering ONLY.
 - a. The OE gauge panel (Instrument Cluster) must remain in place.
 - b. Additional devices may be located anywhere within the cockpit, including in front of the stock gauges.

6. PREPARED CLASSES

A. The **PREPARED** classes allow participation with a higher level of modification than the Sport classes, but remain in keeping with the spirit of the “original” vehicle. All Sport class improvements are also allowed in the Prepared classes.

B. **Prepared classes** are based on the stock class of the chassis and model; for example, a chassis/model classed as a “J” class car in Sport will be a “J” class car in Prepared class.

C. Prepared class race cars are weighed with the driver and safety equipment in the car and total weight must meet or exceed the allowed prepared weight published herein.

D. Allowed modifications in addition to those allowed in Sport Classes:

E. Engine

1. Intake system:

a. Four-cylinder engines originally equipped with carburetion are permitted two carburetors.

Engines with six or more cylinders that were originally equipped with carburetion are permitted three carburetors.

b. Carburetion in excess of the limits of Section 6.E.1.a above will result in the car being moved up one class. Modifications or changes to the intake manifold to accept additional carburetor(s) are allowed.

c. Throttle bodies, including the connector between the plenum and the throttle body, are free but must remain in original configuration (for example, multiple throttle bodies may not be substituted for a single throttle body).

d. Intake plenums may be swapped, but must be OE BMW from the chassis generation being used (~~ie~~ A 96 M3 can use a 95 M3 M50 plenum, but an E46 325 with an M54 engine cannot backdate to an M50 plenum).

e. Fuel injection air-metering devices must remain in the stock configuration and operation. Alternate air flow meters (AFM) and mass airflow meters (MAF) that retain the same metering method (air flap, hot wire, or hot film) may be used, but an AFM may not be substituted for a MAF or vice versa. The wiring and connector for the air-metering device may be altered to allow the use of an alternate legal air-metering device.

2. Camshaft lift and duration may be changed from stock. Cam gears, Vanos shims, and valve seats and springs are free. Alternate valve retainers of the same material as stock and equal or heavier weight than stock are allowed. Cam timing is free.

3. Non-OE ignition boxes are allowed for distributor-based engines (ie MSD box).

4. OBDII-equipped cars may retrofit engine electronics to the pre-OBDII factory system that was available on models with the same engine type. Likewise vehicles originally equipped with OBDI engines may use an engine from an OBDII car and keep the original electronics to the receiving chassis (for example, E36 325 receiving an M52B28 motor and retaining the original OBDI chassis electronics).

5. Engine management systems other than the stock ECU are not allowed. ECU software is free so long as the ECU configuration remains stock. Devices that alter, condition, or otherwise modify the inputs to the

ECU or the signals from the ECU are prohibited. Alpha-N programming and DTA, Motec, EFI, Split Second, and all other replacement or "piggyback" engine management systems are prohibited.

6. All pistons must be factory replacement equivalent and match factory dome, dish, valve relief depth, ring groove placement, weight, and wrist pin height, etc. Compression must meet factory specifications. The maximum allowable overbore is limited to the largest available factory replacement piston, not to exceed .040 inch (1.00 mm). The compression ratio may be changed only within the tolerances affected by resurfacing for trueness and must be within factory tolerances.

7. Fuel injectors are free.

8. Exhaust headers are free.

9. Engine Swaps

a. An "Engine Swap" occurs when a car receives an engine that is different from the one it contained when delivered from the factory. The engine being installed must have been available from the factory in the US market for the chassis/variant and body style and exterior contour it is being installed into (ie. neither an E36 with an E36/7 alloy-block 2.8L, an E46 M3 with non-S54, nor E46 non-M chassis with an S54 are not Prepared legal).

b. The class of an engine swap car will be based upon the engine.

c. An engine swap car must use the transmission associated with either the donor engine or chassis; no other transmission is allowed. No modification to the transmission or bell housing is allowed.

d. Use of an unmodified alternate factory driveshaft or modified stock drive shaft to facilitate the installation is allowed. The stock driveshaft is defined as that which came from the receiving chassis. No modifications to the driveshaft that are not specifically required for the installation are allowed. The driveshaft configuration may not be changed. The driveshaft material must be as stock.

e. No other driveline modifications are allowed beyond those specifically allowed in the Prepared class.

f. The weight of an engine swap car must meet the greater of:

(1) The weight required for the original configuration of the car as delivered from the factory.

(2) The weight required for the new configuration of the car based on the engine donor chassis.

~~(3) If using the S54 motor this weight shall be that specified for the E46M3 regardless of the engine donor chassis.~~

(4) The weight of the heaviest version of that chassis in its class (for example, an E36 318 or 325 chassis receiving a 2.8-liter motor must weigh as much as an E36 328).

~~(5) The weight of the same car with an iron block (for example, a 2.8-liter alloy block installed in an E30 chassis must weigh as much as an E36 328).~~

~~g. Engine swaps using "Euro" engines move the car into the appropriate Modified class.~~

10. E36 Chassis Swaps

a. An “E36 Chassis Swap” occurs when a motor and transmission from a an E36 standard variant (not E36/7 Z3) is placed within an E36 chassis that is different from the one it was placed in when delivered from the factory.

b. The class of the chassis swap car will be based upon the engine.

c. A chassis swap car may update/backdate with chassis-specific components, including using “M” model components, such as suspension or sub-frame.

d. The weight of a chassis swap car must meet the greater of:

(1) The weight required for the original configuration of the car as delivered from the factory.

(2) The weight required for the new configuration of the car based on the donor chassis.

(3) The weight of the heaviest version of that chassis in its class (for example, a car with an M52B28 engine installed in an E36 318 or 325 chassis receiving must weigh as much as an E36 328).

11. Oil filter housings may be replaced with alternate or aftermarket oil filter housings or oil distribution blocks. Remote oil filters may be used with alternate or aftermarket oil distribution blocks that do not incorporate an oil filter housing.

12. The power steering reservoir may be replaced and associated lines may be replaced with braided steel lines using AN fittings.

F. Suspension

1. Upgrading to suspension components from “M” series chassis within the E36 chassis family (that is, E36M3 to E36) is allowed.

2. Vehicles with stock four-lug hubs may be upgraded to BMW five-lug hubs.

3. Quicker-ratio units for steering boxes or rack and pinion steering assemblies may be used provided they are BMW components.

G. Brakes

1. Rotors are free (except carbon rotors are not allowed).

2. Calipers are free with the following limitations: four-piston maximum, two-piece design, one caliper per wheel.

3. The number of master cylinders must be as supplied by the factory, except that early production cars (such as the 1600, 1800, and 2002) may update to a tandem master cylinder for the safety of the dual-circuit system.

4. Master cylinders may be modified or replaced to increase volumetric flow, however the unmodified stock fluid reservoir and brake booster must be retained.

5. Brake Drums are free (for example, 1600/2002 and 320 models).

6. Upgrading to “M” specific components is allowed on all non-“M” cars of the same generation (i.e., E36 325 may use E36 M3-fitment brake parts but not E46 M3-specific parts unless otherwise categorically allowed above).

H. Transmission/Flywheel Assembly

1. The flywheel is free except that it must be constructed of ferrous material and/or aluminum.
2. The clutch disk may be lightened or replaced with alternate materials.
 - a. The clutch disk shall be the same diameter and number of clutch disk(s) as originally equipped for the chassis, model, and year.
3. The pressure plate may be replaced but shall use the original equipment mounting holes.

I. Body/Chassis/Interior

1. Openings in the front air dam/bumper cover to provide for ducting to additional coolers (oil, transmission, and differential) are permitted.
2. Rear spoilers and wings are free providing they do not exceed maximum body width, are no higher than the roofline and do not extend more than two inches past the farthest part of the rear bumper as viewed from above the car.
 - a. Vehicles with a roofline that extends to the rear for the full extent of the body may have these devices extend no more than three inches above the roofline.
3. Front splitters are free providing they do not exceed maximum body width, do not extend rearwards past the front axle centerline, do not extend more than three inches past the farthest part of the front spoiler or bumper as viewed from above, and follow the general outline of the spoiler.
 - a. Installed devices must be consistent with the spirit of the original design of the car such as those presented by aftermarket sources.
 - b. Dive plates are allowed.
4. No aerodynamic device may be installed that has the capability of being controlled, altered, or adjusted by the driver or by any other means while the car is in motion.
5. Front windshields may be replaced with polycarbonate of minimum 6 mm thickness.
 - a. Front windshield retaining clips or straps are required for non-glass windshields.
 - (1) A minimum of four exterior retaining clips (two top and two bottom) or two exterior retaining straps and two interior windshield supporting bars are required.
 - b. If an edge of a polycarbonate windshield is not accessible for measurement, a 0.125-inch diameter inspection hole must be drilled near a bottom corner of polycarbonate windshields to allow confirmation of thickness.

J. Data Acquisition

1. The stock gauge panel (Instrument Cluster) may be removed in whole or in part.

7. MODIFIED and SUPER MODIFIED CLASSES

A. The **MODIFIED** classes are for race cars with a still higher level of modification than the Prepared Classes and require use of both a BMW engine and BMW transmission. All Sport and Prepared class improvements are also allowed in the Modified classes. Class for competition will be based on engine displacement.

B. The **SUPER MODIFIED** class is intended for race cars where the modifications exceed those allowed in the Modified classes and, additionally, for those designated non-BMW purpose-built chassis, BMW-powered race cars that meet the eligibility criteria (Chevron, DP). All Modified Class improvements are also allowed in Super Modified class.

C. Allowed modifications in addition to those allowed in Sport and Prepared classes:

D. Metallic treatments are permitted (for example, plating, coating).

E. Engine

1. The car must retain a BMW OE engine block and head. Schnitzer heads are allowed on M10 engines. All other changes, relocations, substitutions, alterations, and modifications are free. Fuel type restrictions listed in the Sport class section remain in place.

2. Engine/drivetrain configuration must remain as stock. Front engine rear drive cars may not relocate the engine to the rear, etc.

3. Turbocharging/Supercharging – For the purpose of class determination, engines with turbocharging or supercharging shall have the actual engine displacement increased by a factor of 1.5 (150%), regardless of boost level.

4. Dry sump oiling systems are allowed.

a. The oil tank(s), cap(s), oil filter(s), and any fittings attached thereto shall be isolated by a metal bulkhead(s), so that in the event of any spillage, leakage, or failure, oil will not reach the driver.

5. Exhaust is free, including side-exit.

F. Suspension

1. Free.

a. Cockpit adjustability of any suspension component is allowed only in Super Modified.

G. Data Acquisition

1. Free.

H. Tires and Wheels

1. Any tire and wheel combination meeting the safety requirements of the BMW CCA Club Racing Program technical inspectors is allowed.

2. Any tire used must be, or have been (for discontinued designs), readily available for purchase by all participants on an equal basis through typical retail market outlets.

3. Tire and wheel packages must be completely covered by the bodywork and have sufficient clearance to prevent rubbing that could be considered dangerous.

4. Non-DOT-approved race tires (“slicks”), including rain tires, are allowed.

I. Brakes

1. Brakes are free. Non-metallic rotors are allowed only in Super Modified. Cockpit-adjustable brake biasing is allowed.

2. Brake lights are required and must be as bright and as easily seen as stock brake lights.

J. Differential

1. Free.

K. Steering

1. Free.

L. Transmission Assembly

1. Modified cars may use any BMW OE transmission and any BMW OE ratios. Super Modified may use non-OE transmissions from any manufacturer and source.
2. Flywheel lightening or replacement is allowed. Modified cars must use a ferrous and/or aluminum flywheel. The flywheel is free in Super Modified.
3. Clutch, pressure plate, and actuating mechanisms are free.

M. Drive Shaft

1. The drive shaft of Modified class cars must be constructed of the same materials as the stock drive shaft. In Super Modified, the drive shaft material is free.

N. Body, Chassis, Interior and Windows

1. Fenders may be flared or boxed to cover wheels and tires.
2. Doors, fenders, hood, bumpers, side skirts, rear fascia, and deck lids may be replaced with parts of alternate material(s) and design, provided that their shape maintains the recognizable external features of the standard BMW automobile.
3. Cutting of non-stock openings and removal of headlights is allowed. Ducting for any purpose is allowed.
4. Windows:
 - a. Windows, with the exception of the windshield, may be replaced with alternate materials.
 - b. Front side windows may be removed.
 - c. Vent holes are permitted in polycarbonate windows.
5. Removal of interior is allowed providing the car "conforms to the spirit" of the BMW CCA Club Racing Program (that is, it is aesthetically pleasing).
6. Partial tube-frame construction is allowed. Construction must be based upon factory chassis. VINs on the cowl and doorframe must be in place, or the door sill tag must be intact if originally supplied. The A, B, and C pillars must be OE both in angles, length, and location. Roof must be OE. OE rocker panels must be used.
7. Non-critical sheet metal (spare tire wells, etc) may be removed. Removal may not be primarily intended to provide aerodynamic benefit, except between the front of the car and the front axles, and between the rear of the car and the rear axles. Any sound deadening or insulation may be removed, except as required around a stock fuel tank when it is retained.
8. Body seams may be fully welded or stitch welded.
9. Batteries are free, and may be replaced and located anywhere in the chassis. Wet-cell batteries located in the passenger compartment must be contained in a marine-style box.

10. The moveable sunroof panel may be replaced by a panel of any metallic or composite material.

11. Chassis that have alternate OE roof panels may use any of the OE panels or exact replicas. The roof must be installed according to factory specifications.

a. Non-OE roof panels are permitted in Super Modified.

12. Underbody aerodynamic aids, other than those stock to the model and chassis, are not permitted between the front and rear axles. Undertrays are allowed between the front of the car and the front axles, and rear diffusers/venturi devices are allowed between the rear axle and the rear of the car. Rear underbody aerodynamics must terminate no further back than one inch past the rear of the stock bumper location as viewed from above. If under-car fuel tanks have been removed, a panel that duplicates the bottom profile of the stock tanks may be attached. These panels must not extend past the location of the stock tanks more than a small amount required to affix the panels.

13. Splitters are free, provided they do not exceed maximum body width, extend no further forward than four inches from the stock front bumper as viewed from above, and are subject to the underbody aerodynamics restrictions.

14. Wings are free, provided they do not exceed maximum body width, are no higher than a line parallel to the ground at the highest point of the roofline, and extend no further than 16 inches behind the rear bumper as viewed from above. Vortex or velocity generators that do not violate these restrictions are permitted.

a. Vehicles with a roofline that extends to the rear for the full extent of the body may have these devices extend no more than three inches above the roofline.

15. All wiring is free provided required components (such as brake lights) function as required.

16. External mirrors may be replaced.

O. Fuel Cells

1. Modified and Super Modified class cars must have a fuel cell, except for cars where the factory stock fuel tank is located forward of the rear axle (for example, E21, E30, E36, and E46 chassis), in which case the stock fuel tanks may be used.