

# **BMW CCA CLUB RACING - 2005 RULES**

*(Includes December Mid-Season Rules Changes)*

<b>PREFACE</b>	<b>2</b>
<b>GENERAL RULES</b>	<b>3</b>
<b>SAFETY</b>	<b>8</b>
<b>CAR CLASSIFICATION</b>	<b>14</b>
<i>STOCK AND PREPARED CLASSES</i>	<b>14</b>
<i>STOCK CLASSES</i>	<b>16</b>
<i>PREPARED CLASSES</i>	<b>23</b>
<i>MODIFIED AND SUPER MODIFIED CLASSES</i>	<b>27</b>
<i>HISTORIC CLASS</i>	<b>30</b>
<b>PROTESTS AND APPEALS</b>	<b>31</b>
<i>PROTESTS</i>	<b>31</b>
<i>APPEALS</i>	<b>32</b>
<b>RULES PROCESS</b>	<b>33</b>
<i>RULES CLARIFICATIONS</i>	<b>33</b>
<i>RULE CHANGES</i>	<b>33</b>
<i>CLUB RACING RULES COMMITTEE</i>	<b>33</b>
<i>RULES CHANGE CALENDAR</i>	<b>34</b>
<i>CHANGES IN MID-YEAR</i>	<b>34</b>
<b>CLUB RACING ADVISORY COMMITTEE (CRAC)</b>	<b>35</b>
<b>APPENDIX A - ROLL CAGE SPECIFICATIONS</b>	<b>36</b>
<b>APPENDIX B - ELECTRICAL DISCONNECT SPECS</b>	<b>38</b>
<b>APPENDIX C - VEHICLE CLASSIFICATION AND SPECS</b>	<b>39</b>
<i>STOCK AND PREPARED</i>	<b>39</b>
<i>MODIFIED</i>	<b>39</b>
<i>OFFICIAL VEHICLE SPECIFICATIONS</i>	<b>40</b>
<b>APPENDIX D - ENDURO SUPPLEMENTAL RULES</b>	<b>44</b>

## PREFACE

The philosophy of BMW CCA Club Racing is to offer all BMW CCA licensed club racers a competitive driving experience conducted in a fun, safe, and friendly environment on a reasonably level, class-based playing field for all types of factory authorized or constructed BMW's. The primary emphasis is on clean driving and machinery preservation. This philosophy will be maintained by the application of common rules and procedures by the BMW CCA Club Racing Stewards at each event.

These rules are intended to be simple, easy to read and brief. The rules are framed around the basic premise that all modifications or alterations to the stock car, as available by BMW in the United States through its authorized dealer network, are prohibited unless specifically stated herein as being allowed. All competitors are expected to conform to the stated philosophy, the rules and to embrace the spirit of BMW CCA Club Racing. That spirit is founded in the belief that the fun of the friendly competition is more important than the results and that mutual assistance among racers when possible enhances the experience for all.

The **STOCK** classes are for racecars with limited modifications to improve the basic performance of a factory stock BMW. All other modifications to the vehicle are intended for safety purposes only.

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

The **MODIFIED** classes are for racecars with a still higher level of modification than the Prepared Classes and require use of both a BMW engine and a BMW transmission. All Prepared class improvements are also allowed in the Modified classes.

The **SUPER MODIFIED** class is intended for racecars where the modifications exceed those allowed in the Modified classes and, additionally, for those designated purpose-built, BMW-powered racecars which meet the eligibility criteria. A BMW engine is required, but alternate transmissions are allowed. All Modified Class improvements are also allowed in Super Modified class.

## GENERAL RULES

1. **Philosophy** - The BMW CCA Club Racing Program is designed to be fun, safe and competitive. Good sportsmanship, honesty, and a sense of fair play should exist at all BMW CCA Club Racing events.
2. **13/13 RULE** - The "13/13 rule" of vintage racing will be in effect at all BMW CCA Club Racing program events. Conduct which jeopardizes safety or results in dangerous or damaging situations will not be tolerated. Under this rule, any single or multi-car incident which results in car damage will cause the following:
  - A. The BMW CCA Club Racing Competition Steward will collect and review all information relating to the incident, including corner worker and other observer reports, driver statements, and damage reports in order to make a determination of fault and assess penalties. The Technical Steward will assist the Competition Steward with mechanical inspection and damage assessment. The Competition Steward should consider all available information and the input of his steward team in making the final assessment.
  - B. A driver who is found to be at fault will be:
    1. Excluded from competition for the remainder of the event at which the incident occurs. For a multi-day event, the Steward's determination may be for the entire event or the balance of the race day in which the incident occurs.
    2. Placed on probation for a thirteen (13) month period. If during this probation period the driver is involved in another contact incident, competition privileges will be suspended for thirteen (13) months.

For SINGLE CAR incidents only, the event Competition Steward is authorized the discretion to assess penalties of 3, 6, or 13 months probation. If the driver is on probation from a previous incident, then a 13-month suspension will be assessed.

3. Subject to suspension from the next BMW CCA Club Racing event in which they could have competed.
  4. Excluded from the event results or listed as "DQ".
  5. Excluded from any event points or awards that may otherwise be available
  6. Required **attendance at** the "rookie meeting" at the next event in which they compete.
- C. In addition, a penalty may be assessed by the event Competition Steward for any infraction of the rules, incident, or personal conduct that is not keeping with the spirit and intent of BMW CCA Club Racing.

The following are examples of actions that could warrant a penalty:

1. Passing under yellow or red flag
2. Blocking
3. Technical rules infraction

4. Unsportsmanlike conduct (both on and off track)
5. Reckless and dangerous driving

The addition of penalties for passing under yellow (or red) flags, blocking, technical rules infractions, unsportsmanlike conduct, and reckless and dangerous driving is intended to emphasize the focus on SAFETY and good sportsmanship that are the tenets of BMW CCA Club Racing. Assessment of penalties for these incidents will be based on evaluation by the event Steward of the competitor's attitude and behavior. For example, blocking may initially incur a furlled or waved black flag warning.

The racer is allowed one defensive movement of his racecar on any given segment of the track (straight or turn) to protect his overall race position. Any additional movement or movements is considered a blocking maneuver and subject to penalty. **Racers are reminded that BMW CCA Club Racing is a class-based program. Racecars that are obviously slower should yield to faster cars that are not in their class. Failure to comply is also considered blocking.**

Repeated violation and/or additional incidents will, at the discretion of the event Competition Steward, result in a penalty up to and including probation or suspension.

Any driver involved in an on track incident causing visible damage to their or another driver's car must report to the event Technical Steward with the car (if drivable) within 30 minutes of the checker flag of the session in which damage incurred. Failure to do so will subject the driver to a minimum of a 6 month probation penalty in addition to any other penalty assessed as a result of the incident.

All incidents shall be resolved as soon as practical after the incident is reported/observed with the objective being resolution and assessment of penalty before the end of the event.

Drivers who are penalized will be notified in writing by the event Competition Steward of the penalty assessed. Drivers are required to carry said notice with their logbook and present notice of such penalty to race Competition Stewards at any races they participate in while the penalty is in effect.

Drivers are responsible for their guests and crew. Inappropriate actions by guests or crew can result in a 13/13 penalty for the driver.

3. **Driver Eligibility** - Only BMW CCA Club Racing Program current and licensed drivers are eligible to compete.
4. **Return from Suspension** – Any driver attempting to return from suspension of his BMW CCA Club Racing license will undergo a mandatory review of his application by the Chairman. If accepted, the Chairman may apply restrictions or conditions to the applicant's license, including a return under

probationary status. In every case a driver returning from suspension will return under a provisional license and the requirements of that license category.

The Chairman may also refuse readmission to the BMW CCA Club Racing program if it is determined to be in the best interests of the program and its participants.

5. **Unlisted Modifications** - Any modification, adjustment, alteration of stock items and/or installation of equipment or part(s) that provide a performance improvement of any magnitude and are not specifically and purposefully listed is NOT allowed. In other words, if the rules don't say you can do it - DON'T. Drivers are reminded that they assume ultimate responsibility for their racecar's conformance to all rules, regulations and specifications even if they did not perform the work themselves. Every driver should insist that all work done to and all parts installed on his racecar are accomplished in a manner that ensures conformance with all applicable rules. Any modification allowed at a particular level of preparation is allowed at all higher levels, i.e. modifications allowed in stock class are also allowed in prepared, modified and super modified.
6. **Eligible Vehicles**
  - A. Open-wheel cars are eligible in historic and demonstration classes only.
  - B. BMW manufactured automobiles, using BMW manufactured chassis, engine case and transmission case. Engine and transmission must have been factory designated for automotive application.
  - C. Factory-approved racecars are eligible. (Documentation of factory approval is the responsibility of the car owner).
  - D. Purpose-built, BMW-powered racecars specifically approved by BMW Club Racing.
7. **Car Numbers, Class Identification, Decals**
  - A. All cars must display easily readable numbers and class designation for identification. These must be displayed on each side, front (hood) and rear of the vehicle, of significant size and color differentiation from the body color so as to be clearly seen by event officials. Side and hood numbers shall be a minimum of 8 inches high with a 1-1/2 to 2 inch stroke. The rear number shall be a minimum of 3 inches high with a minimum 1/2" stroke. Class identification shall be near the numbers and be a minimum of 3 inches high. Class identification will consist of 2 letters, i.e. A-Modified = AM, I-Prepared = IP, J-Stock = JS. Identification for a car in Super Modified will be the letters SM.
  - B. Competitors may request assigned numbers from the National Registrar. The goal will be to allow racers to use requested numbers. Where duplications exist, deference will be given to the racer with the lowest Club Racing license number (as long as he/she is a paid registrant at least two weeks before an event date) so long as the racer is considered active with a current license. Race officials reserve the right to assign car numbers for specific events.

- C. Club Racing officials may require series and sponsor identification (decals) in specific size, contrast and placement to be displayed on cars before being allowed to race.
8. **Steward's Decisions** - All decisions of the BMW CCA Club Racing Stewards concerning safety, eligibility, acceptance or other issues covered by the Club Racing rules are binding and not protestable or appealable at that event. If the racer does not agree with the Stewards' decision(s), prior to the next entered event he/she may appeal directly to the National Chairman. The National Chairman will render a decision within 10 days of the receipt of the appeal. The National Chairman's decision is final and not eligible for further appeal within Club Racing. Vehicles entered in the program must, in addition to meeting safety and classification rules and regulations, be presented in an attractive and eye pleasing manner. BMW CCA Club Racing Stewards reserve the right to refuse to accept any vehicle which they feel does not "conform to the spirit" of the BMW CCA Club Racing Program.
  9. All operational decisions such as, but not limited to, flagging calls and alteration of the intended schedule, are not appealable. The Competition Steward may alter the provisional race results through the application of post-race penalties up to and including disqualification. Post race penalties are appealable under the provisions of the appeal process.
  10. **Reclassification** - BMW CCA Club Racing National officials reserve the right to reclassify a racecar based upon a review of previous performance.
  11. **Award Eligibility** - Vehicles must compete in the class to which they are classified to be eligible for awards.
  12. **Tow Points** - All racecars must be equipped with a front tow point and a rear point is highly recommended. Tow points shall not protrude dangerously from the bodywork. These tow points must be easily accessible without removal or manipulation of bodywork or other panels, be capable of sustaining the stresses of towing and should have an interior dimension wide enough to accept a standard size tow hook.
  13. **Alcohol and Drugs** – No driver may participate in any on-track activity within an event while under the influence of a substance, prescriptive or otherwise, including alcohol, which has the potential to negatively affect the driver's performance. Alcohol is not to be consumed by any racer, member of a racer's crew, his guests, event volunteers or event staff until such time as the last car in any run group or session is off the track.
  14. **PREGNANCY POLICY:** The BMW CCA Club Racing Medical Committee has determined that driving racecars while pregnant poses many risks to unborn children. During the first trimester the risks for injury to the child from x-rays possibly needed to stabilize an injured driver can result in birth defects. After the first trimester the potential for placental injury in a non-life threatening crash is high.

We do not recommend racing while pregnant and BMW CCA Club Racing expressly prohibits racing after the first trimester.

Female racers who are pregnant or suspect they may be pregnant are encouraged to seek medical advice from their physician(s) regarding their participation in BMW CCA Club Racing

Additionally, the racer is required to notify the National Licensing Coordinator that she is pregnant as soon as practically possible after such determination. She must provide a statement from the attending physician that establishes the end of the first trimester. While pregnant, the racer must note such on her event Medical Information form which is a required part of each entry application.

Anyone wishing to participate as a driver in any BMW CCA Club Racing event while pregnant must sign an acknowledgement of this policy and waiver of liability and return it to the National Licensing Coordinator.

### **IMPORTANT NOTE:**

**No express or implied warranty of safety or fitness for a particular purpose shall result from publication of, or compliance with, these rules and/or regulations. They are intended as a guide for the sport and are in no way a guarantee against injury or death to participants, spectators or others.**



# SAFETY

*These safety regulations are adapted from various racing organizations. If you are in doubt as to an interpretation, ask. If you are going to err, do so on the side of being too safe!*

## 1. TECH INSPECTION

- A. ANNUAL TECH** - All racecars must complete a comprehensive annual inspection prior to participation in any Club Racing event within the current calendar year. Before the annual tech inspection, the car owner must complete the Annual Tech Inspection form and validate it with his signature. It is then presented to and signed off by an authorized Club Racing tech inspector. Following successful completion of the inspection, the form must then be attached to the logbook for presentation to the Tech Steward at each event for the remainder of that calendar year. All official Tech Stewards are authorized to sign off annual tech inspections. Club Racing may designate other authorized inspectors and will publish a comprehensive list of approved inspectors on the national Club Racing website.
- B. EVENT TECH** - All cars must be comprehensively prepared prior to arrival at the track. If the racecar has completed a current-season annual technical and personal equipment inspection, and it is so noted officially in the racecar's logbook, the racer should present only the current logbook to the event Technical Steward. The racecar and personal safety equipment do not need to be presented unless there is an outstanding discrepancy noted from in the logbook from the prior event, or the Technical Steward requires it. The Technical Steward may ask for the racecar to be presented for inspection at any time during the event.

Any vehicle deemed unsafe by BMW CCA Club Racing Stewards will not be allowed to compete until all deviations or shortcomings have been addressed to the Stewards' satisfaction.

Equipment and/or modifications will not be considered as having been approved by reason of having passed through inspection unobserved.

Any racer who fails to present his racecar for a required or requested technical inspection will be immediately disqualified for the remainder of the event and placed on a mandatory 13 month probation. The racer may be suspended for 13 months if both the Technical Steward and the Competition Steward agree that circumstances warrant such action.

- C. TECH FOR RULES COMPLIANCE, WEIGHING** - Tech Stewards may require onsite detailed tech inspection for rules compliance including weighing any car entered in an event and/or may announce detailed tech of entries in a specific class or classes at a race.
- D. IMPOUND** - In order to promote careful adherence by all competitors to the car classification and preparation rules, Club Racing Stewards reserve the right to conduct impound and inspection of any or all racecars in any or all classes at any time. Cars found to be at variance with the

class rules will be denied their finishing positions, and the variances will be recorded in the individual logbooks.

- E. INSPECTION** - Tech Stewards may request disassembly and inspection of any entered car to ascertain its compliance with these rules. If the car is found to be in compliance Club Racing shall stand the expense of disassembly, inspection and reassembly. If found not to be in compliance the competitor shall bear these expenses.
  - F. CLASS DECLARATION** – The entrant’s presentation of a racecar’s logbook to the Tech Steward for event participation approval is a statement that the car’s declared class is in compliance with all applicable rules. The racer assumes final responsibility for properly declaring the class of the car.
- 2. HELMETS** rated with a SNELL automotive rating of **SA-2000** or newer are required. (Snell **M**-rated helmets are **not** allowed). Drivers of vehicles without full windshields are required to have either a full-face helmet with shield in place or use protective goggles. It is recommended that all drivers wear either a full-face helmet with the shield in place or protective goggles.
  - 3. ROLL CAGES** - All classes require a full roll cage. A horizontal brace is required in the rear hoop. All cages must be mounted metal-to-metal, of approved materials and of proper size as listed in Appendix A. Side impact “doorbars” may be added to any cage and the drivers door panel may be modified or removed to accommodate them. Side impact bars may be bolt-in or removable configuration.
    - A. STOCK** class roll cages shall be bolted or welded into the car, contained entirely within the driver/passenger compartment, and include six (6) attachment points as shown in Appendix A. Two (2) additional bars may be extended from the front cage downbar to the front wheel well to protect the driver’s feet/legs. Carpet/padding may be cut for roll cage installation (installation **MUST** be metal to metal). Rear braces may pass through interior trim panels. Cage tubing cannot be welded or bolted to the sides or roof and cannot be attached to stiffening devices in trunk or engine compartment.

**NOTE:** Stock class car cages may **NOT** include braces to the rear shock towers. The few cars that were approved with this configuration will be grandfathered and allowed to remain in Stock **IF** they submit documentation in writing to the National Technical Steward (NTS) including copies of log books, etc. proving they had been authorized this construction for Stock class. The NTS will respond in writing; such authorization must remain in the car’s logbook. Without such documentation, the car will compete in Prepared classes.
    - B. PREPARED** class - Main hoop braces may be mounted at the rear shock mounts, towers or suspension pickup points. Such rear braces may pass through any rear bulkhead or panel separating the driver/passenger compartment from the trunk/cargo area/fuel tank/fuel cell area, provided the bulkhead or panel is sealed around said cage braces.
    - C. MODIFIED and SUPER MODIFIED** - cage construction is free provided it complies with the basic structure outlined in Appendix A. The cage attach points and number of attach points are free.

4. **SAFETY HARNESS** – A safety harness, not more than five years old, which meets SFI and/or FIA standards is required. It must be either a 5 or 6 point competition harness (with 2" sub belt) and properly mounted and installed in accordance with the manufacturer's instructions. The harness cannot be mounted to the seat or seat rail. The harness must be mounted to the chassis backed by large diameter washers or to the roll cage or to an existing DOT-approved harness mounting point. All mounting points must meet the harness manufacturer's mounting location requirements. No two harness straps can be attached to a single mounting bolt. No Y-type shoulder harnesses are allowed. **Any harness that is designed for use with a supplemental restraint (e.g., HANS, ISAAC) MUST be used in conjunction with that device.**

**NOTE: Harnesses meeting SFI standards will have a two year life span and harnesses meeting FIA standards will have a five year life span beginning on January 1,2006.**

The shoulder harness straps must be mounted such that the angle of the straps from the driver's shoulders to the anchor point must not be above horizontal nor at an angle greater than 40 degrees below horizontal. The anti-submarine straps should be mounted such that they will not allow upward vertical movement of the lap belt due to "crushing" of the front seat cushion in any situation.

The design of some seats can, in many cases, render the shoulder harness straps ineffective as they slide from the shoulders under lateral loading. It is mandatory that seats that do not allow the shoulder harness straps to remain on the shoulders in all situations be modified with a slot for the harness straps to pass through, or be replaced with a racing seat which has provisions for routing the straps. This is a mandatory modification that must be completed before the vehicle will be eligible to compete. A "sternum strap" or similar solution is allowed, but is not a substitute for proper shoulder strap arrangement

5. **DRIVING SUITS** – A fire retardant driving suit is required. (Minimum requirement: Two-layer or one-layer plus fire retardant underwear). A one-piece fire retardant driving suit is highly recommended. A three-layer or two-layer suit with SFI rating of 3.2A/5 is strongly recommended. Military flight suits are not acceptable substitutes for fire retardant driving suits. Fire retardant socks and gloves are required. Driving shoes of a fire retardant material are strongly recommended. Tennis shoes with all leather uppers are acceptable. Drivers with mustaches and/or beards must wear a balaclava.
6. **FIRE SAFETY** - a 2 lb. or larger fire extinguisher with a 10 B/C rating, securely metal-to-metal mounted in the cockpit in a safe location, and reachable to the driver while seated and restrained, is required. An on-board fire system is strongly recommended. Cars competing in the Modified and Super Modified classes on full race tires, i.e. slicks, require on-board fire systems with a minimum of two nozzles, one for the engine compartment and one for the driver's area. Cars with on-board fire systems require E

decals. All fire bottle safety pins must be removed so that the system is ready to activate. An on-board fire system for racecars competing in Modified or Super Modified classes is mandatory effective January 1, 2004.

**7. WINDOWS AND WINDOW NET**

**A.** The windshield shall have:

1. No more than three distinct and different cracks exceeding 10 inches combined length, and
2. No single visible imperfection which is larger than 1-1/2 inch in any dimension, and
3. No single crack which runs from opposite edges (side to side or top to bottom), and
4. No single crack which is through both the inside and outside surfaces at any point, and
5. No impairment to the racer's forward vision from either external or internal imperfections in the glass, including "sandblasting" effect.

If any item(s) are found to exist, the Technical Steward may issue a one-time exception in the racecar's logbook requiring replacement by the next event so long as, in the Steward's sole judgement, the structural integrity of the windshield is not immediately compromised nor the driver's vision dangerously impaired.

**B.** Both front door windows must be completely down and an approved window net and attachment system fitted to the driver's window area.

**The window net must be attached to the cage and NOT to the door.**

Holes must not be drilled in the cage to mount the window net. All window nets must be a minimum of 17"x21" and SFI 27.1 rated. Net design must allow for quick one-handed removal. The net must be mounted securely at the top or bottom with provision for easy removal at the opposite edge in the event of an accident. The use of plastic tie wraps or straps is not allowed.

**C.** Tinted REAR windows are specifically disallowed in all classes and their use is discouraged in all windows. OEM window tinting is allowed. The purpose of this rule is to address dark aftermarket tinting which causes real safety issues in driver awareness and communication.

**8. OPEN CARS - ARM RESTRAINTS** - Open cars (including convertibles with top up or down or with installed hardtop) must be equipped with approved arm restraints.

**9. SEATS, SEATBACK BRACES** - Seats homologated to and mounted in accordance with FIA standard 8855-1999 or higher need not have a seat back attached to the roll structure. The homologation labels must be visible. Seat supports shall be of the type listed on FIA technical list No.12 (lateral, bottom, etc).

Should seat back bracing be required, it must be attached to the horizontal tube on the rear hoop of the cage. Braces must either be bolted securely to the seat utilizing a metal plate of no less than 12 sq. inches to distribute the load, **OR**, if not bolted to the seat, a brace of similar minimum dimensions must be in contact with the seat back. Minimal energy absorbing padding is allowed between the brace and seat back. It is recommended that if not attached to the seat the brace be designed where possible to wrap around

both sides of the seat to prevent lateral movement. Contact your Regional Technical Steward with any specific application questions.

- A. Replacement Seats** - any replacement drivers seat must meet or exceed the strength and rigidity of the factory installed seat.
  - B. Hardware** - the minimum diameter of all seat fastening hardware must be 8 mm. 2002's, 530i's and early 320i's must upgrade the original 6 mm hardware. It is strongly recommended that the seat mounting pads on these early cars be strengthened to withstand the loads of racing.
  - C. Headrests**, either integral with the seat or separate, are required. The headrest must extend above the midpoint of the back of the helmet on the vertical plane of the seatback with the driver in the normal seating position.
- 10. Head and Neck Support** – Use of a head and neck support system for the driver is highly recommended. Any such system should be used in accordance with the manufacturer's instructions. A padded, fire-resistant neck support is recommended as a minimum level of protection.
  - 11. Airbags and Steering Wheels** - Non-stock steering wheels are allowed in all classes. Airbags may be disconnected during on-track sessions in all classes and may be removed from the stock steering wheel.
  - 12. Rear Bulkhead** - A sealed metal bulkhead between the passenger compartment and the trunk or compartment containing the fuel tank is required on cars using a fuel cell or where the fuel tank is not totally under the car floor (i.e., is required in 1600/2002 models). A bulkhead is highly recommended on cars where the fuel tank is under the body (i.e., E36).
  - 13. Sunroofs** must remain completely closed.
  - 14. Floor mats** must be removed. Drivers side carpet may be removed.
  - 15. Hubcaps, trim rings, etc.** must be removed.
  - 16. Lugnuts** must be original manufacturer specification with engagement at least equal to the diameter of the wheel lug studs. The use of wheel studs to replace lugbolts is allowed and highly recommended.
  - 17. Oil lines** - All oil lines on the pressure side of the oil pump must be thread-on connections equal to or better than the factory, i.e. slip-on oil lines to coolers, gauges, etc. are not allowed.
  - 18. Electrical cut-off switch**, with standard approved location decal, mounted externally (preferably on the driver's side), is strongly recommended for all cars **and is required for all racecars competing in all classes other than Stock**. The switch must disconnect the battery from all circuits, (except an electronically operated fire system) and must shut off the engine and alternator while it is running. Method of operation can be by pull wire, requiring no external body modification. (See Appendix C).
  - 19. Catch tank** for radiator overflow and oil breather (if vented into the atmosphere) is mandatory.
  - 20. Sound Level** - All competitors' cars must not exceed a maximum sound emission level of 105 dB as measured from a distance of 50 ft from the edge of the track. More restrictive standards may apply from track to track. Competitors bear sole responsibility to determine that their vehicles comply with Sound Control Regulations at each event. Mufflers may be required.

21. **Engine Coolant** - Use of an ethylene glycol (coolant) substitute (e.g. “Water Wetter”) is highly encouraged for all competitors. Ethylene glycol may be used when deemed necessary for climatic reasons. **NOTE:** Some local tracks and racing venues prohibit the use of ethylene glycol. In these cases, racecars using ethylene glycol may be prohibited from participation.
22. **Personal Medical Information** – BWM CCA Club Racing recommends use of personal medical information to be worn by all drivers.



# CAR CLASSIFICATION

## *Stock and Prepared Classes*

### 1. General

Cars in these classes are to be factory equipped vehicles as delivered to the general public through factory-authorized, United States BMW dealerships. Special order performance enhancements are not allowed in Stock classes. Evolution parts are considered modifications and may only be interchanged with stock parts as allowed in class rules. **If not listed in Appendix C, Vehicle Specifications, Eurospec cars will be classified a minimum of one stock or prepared class higher than the American spec model. Additionally, Eurospec cars are required to compete at a minimum of 105% of the weight of the originally classed base chassis (e.g., an E36 M3 with a 3.0L Euro engine would be assigned to the appropriate "H" class and required to compete at 105% of the E36 M3 "I" class weight). Eurospec cars are defined as those with performance improvements or enhancements not available from BMW in cars manufactured for delivery within the United States. Eurospec cars that did not have an USA equivalent (e.g., the engine displacement and/or configuration was not offered in an USA factory production model) will be classed in Modified classes.**

Vehicles competing in SCCA classes Improved Touring, Touring 1, Touring 2 and Showroom Stock will participate in BMW CCA Club Racing adhering to either BMW CCA class rules or SCCA class rules, but not a combination of both. Competitors must declare in writing in the car's BMW CCA logbook which series preparation rules they are complying with, and must be able to present the most current SCCA General Competition Regulations appropriate to the declared class. A SCCA logbook documenting participation in SCCA ITA/B/C/S, Touring 1 or 2, or Showroom Stock A/B/C classes is required for a racecar competing in a SCCA Improved Touring, Touring or Showroom Stock configuration. Without such documentation the entrant must conform to appropriate BMW CCA class rules. The SCCA logbook does not have to be current. Stewards may allow a one-time, one-race exemption that must be noted in the BMW CCA Club Racing logbook.

Cars complying with SCCA Touring or Showroom Stock rules will be classed in the appropriate Stock class. Cars complying with Improved Touring rules will be classed in the appropriate Prepared class, except that ITE cars will generally be classed as Modified.

## 2. Approved Weights

All racecars in the Stock and Prepared classes must meet or exceed the minimum weight as specified in Appendix C, **or in the case of Eurospec cars, as specified in Section 1 above.** The racecars may be weighed at any time during the event. A car found to be underweight after a practice or qualifying session must add securely mounted ballast in the passenger compartment to meet the minimum weight requirement or will be moved to a higher class for that event. The Tech Steward or Competition Steward **will** prohibit the car from competing in blatant cases or, at a minimum, will require the racecar to start the next race from the back of the grid. A racecar 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.

Current weight limits are based on published BMW NA or BMW AG weight.

Stock class racecars are measured without the driver and must meet or exceed the appropriate stock weights published herein.

Prepared class racecars are measured with the driver in the vehicle and total weight must meet or exceed the allowed prepared weight published herein.



# STOCK CLASSES

The **STOCK** classes are for racecars with limited modifications to improve the basic performance of a factory stock BMW. All other modifications to the vehicle are intended for safety purposes only. Updating or backdating is allowed provided the converted vehicle meets ALL specifications of the vehicle to which it is converted.

**Stock classes** are based on factory-published horsepower and weight. All cars must conform to these figures if tested. The BMW CCA Club Racing Stewards reserve the right to test any car for conformance at any time.

## 1. Engine

- A. As delivered from factory. No modifications of any type after the air filter or before the exhaust port.
- B. The engine must run on fuel type consistent with the original BMW factory engine design, e.g. gasoline or diesel. Selection of leaded or unleaded fuel and octane ratings are free.
- C. Stock fuel injection for the chassis, model and engine must be retained, except carburetors may be substituted for mechanical fuel injection. Carbureted cars may substitute up to maximum of 40mm downdraft. Modifications to the intake manifold to accept a 40mm downdraft are allowed. Jets and emulsion tubes are free for cars using carburetion.
- D. Engine management systems other than the stock DME are not allowed. Replacement performance chips for OBD-I format, as well as E-Prom downloads for OBD-II format, are unrestricted with the following exceptions:
  - 1. The remaining DME internal configuration must remain as stock and retain the correct model version identification and variant code.
  - 2. External or "piggyback" devices such as the Hi-op or Split Second that either alter or modify sensor or metering signals into or out of the DME are prohibited.
  - 3. Substitute engine management systems such as MOTEC, EFI, or any Alpha-N system are prohibited.
- E. Exhaust system must be in stock configuration as intended for the chassis, model and year. Exhaust tips are free. Factory equivalent aftermarket parts are permitted. Catalytic converters must be intact and functional (if originally so equipped). Headers are prohibited (unless originally equipped). All components must be functional.

NOTE: Stock configuration is defined to be all components of the exhaust system (exhaust manifold/header, down pipes, catalytic converters, mufflers, tubes, etc.) with the exception of resonators, in number, function, layout (dual, single) and routing as manufactured by BMW for the year and model.

- F. Machining for balancing purposes only is allowed.

- G. All pistons, including aftermarket replacements, must be factory replacement spec and match factory dome, dish, valve relief configuration, ring geometry, weight, wrist pin height; compression must meet factory replacement specifications. A maximum of .020 (.5mm) overbore is allowed.
- H. **NOTE:** Rebuilding of E30 M3 engines to 2.5L using EVO III crankshaft and pistons is allowed, but moves the car up one class. Use of entire E30 M3 EVO III 2.5L motor moves the car to Modified class.
- I. Air conditioning belts and air injection systems may be removed.
- J. Engine, transmission, and differential oil coolers are free. Coolers must meet the following specific installation requirements.
- K. All coolers mounted below the factory water radiator must be protected from debris intrusion with steel screening. All non-factory coolers shall be isolation mounted to eliminate stress cracking.
- L. **HOSES** - Any hose or line passing through any part of a bulkhead or panel must be grommited to prevent abrasion.

Hoses must be properly anchored to the body or panels at least every twenty-four (24) inches using protective, cushioned line clamps or factory type line retainers.

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)

Hoses shall be temperature-rated to 300 degrees F.

No slip-on or push-on connections are allowed.

- M. Accusumps and oiling system changes – Accusumps are permitted. The oil pump pick-up, baffle and oil pan are free. Dry sump systems are not permitted.
- N. Motor & transmission mounts can be changed for increased strength using alternate BMW factory parts. They must be the same height as stock for the model year and options of the vehicle.
- O. Gauges are free (see paragraph 10. Data Acquisition).
- P. A second fuel pump is allowed.
- Q. 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 one-fourth (1/4) inch minimum mesh may be mounted in front of the radiator and/or oil cooler(s) and contained within the bodywork.

The mechanical (engine driven) cooling fan may be removed or replaced.

## 2. Suspension

- A. Except as allowed in Paragraph B below, suspension pick-up points must remain as located from the factory in all three dimensions and any

suspension component that is not adjustable from the factory or by factory approved service manual procedures may not be adjusted.

- B.** Upper front shock mounts must be OEM factory parts. Solid mounts and/or substitute bushing material are prohibited. The negative camber setting at either front wheel may not exceed 3.5 degrees through any method or combination of methods. There is no negative camber limit for the rear wheels. Factory camber correction mounts ("crash mounts"), non-adjustable camber plates and "hat" swapping are allowed so long as the maximum allowed negative camber setting is not exceeded. The car must be equipped with the factory-original, upper front strut mount. It must be used without modification to the part. The body holes locating and securing the mount must be unaltered and used in the original configuration to secure the mounting. No slotting, modification or substitutes are permitted.
- C.** Shock absorbers must use the car's factory stock pick-up points. Double-adjustable (compression and rebound only) shocks are allowed. Remote reservoir shocks are prohibited in Stock Classes.
- D.** Any suspension setting not requiring machining or modification to factory parts is allowed.
- E.** Spring type and outside diameter of the spring must remain as supplied by factory.
- F.** Spring rates are free.
- G.** Coilovers are allowed only in cars originally so equipped from the factory, and then only in the original configuration. Adjustable coilovers are not allowed.
- H.** Sway bar sizes, configurations and end links are free. Adjustable sway bars are allowed so long as they cannot be adjusted from inside the car.
- I.** Suspension bushing materials are free (other than upper front shock mounts - see B).
- J.** Any bolt-in shock tower brace is allowed.
- K.** Additional welding of sway bar pick-up points and trailing arm pick-up 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, idler arm and steering box mounts can be strengthened for safety with additional welding.
- L.** For those cars that can accept them, E36 M3 front lower control arms and bushings, along with solid rear upper shock mounts are allowed. In the interest of safety, it is strongly advised that this modification be made.
- M.** E36's may 'box' via skip welding the lower wishbone (part # 33321092237) in the rear suspension to reinforce the part, in the interests of safety and durability. It is strongly advised that this modification be performed.

### **3. Tires and Wheels**

- A.** 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. No "autocross spec" tires are allowed.

- B. Rain tires – Any rain tire must be based on a DOT approved tire (e.g., 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. **Hoosier Dirt Stockers are not allowed.**
- C. 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.
- D. Tread must have adequate rubber to ensure safely completing the full race session.
- E. 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.
- F. Wheel type and style is free (except for width and diameter restrictions as specified in paragraphs **G and H**) providing the wheel meets or exceeds factory safety specs. Spacers may be used as long as long as the tire/wheel/spacer unit complies with paragraphs **G & H**.
- G. Wheel width - One (1) inch wider than originally supplied wheel and any tire combination which fits under the stock body without modification **except as noted in paragraph I, below.** 1600, 2002 models may use up to 7" width (with the same bodywork restrictions).
- H. **Wheel diameter** - One (1) inch larger than originally supplied diameter is allowed. Vehicles with TRX tires/wheels as stock may upgrade to 16".
- I. **Fender and wheel openings shall remain unmodified except that it is permitted to roll under or flatten any interior lip on a wheel opening for tire clearance purposes.**

#### 4. Brakes

- A. Brake pad material is free.
- B. Brake calipers and rotors must be of the same type and size as original for the model and year of the car.
- C. Grooving and slotting of rotors is allowed.
- D. Ducting of air to rotors is allowed.
- E. Removal of dust shields (backing plates) is allowed.
- F. Brake fluid is free.
- G. Master Cylinders must be as supplied by the factory, except that early production cars (i.e. 1600, 1800 and 2002) may update to tandem master cylinder for the safety of the dual circuit system.
- H. Brake lines may be steel or aeroquip.

## 5. Differential

- A. Ratios of ring and pinion, case size and number of side cover bolts must be as supplied by the factory for the model year, transmission type and options of the car.
- B. Factory limited slip differentials are allowed with the same ring and pinion ratio as the standard differential.
- C. Finned, larger capacity differential covers may be used.

## 6. Transmission/Flywheel Assembly

- A. U.S. Spec BMW OEM transmission, as originally equipped for the chassis/model/year must be used. No changes permitted to the case or internals.
- B. Transmission coolers are free.
- C. The shifter mechanism can be modified or replaced to reduce the range of motion (throw).
- D. Flywheel assemblies, including clutch related items, must retain stock configuration and weight.
- E. 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.

## 7. Body/Chassis/Interior

- A. Chassis/body, with the exception of spoilers, must be the same material as supplied by the factory.
- B. Ducting of air to rotors/engine - fog lights/covers may be removed to facilitate ducting of air to brake rotors/engine.
- C. Seats are free providing minimum weight of vehicle is met. Any ballast to meet weight, because of seat substitution, must be placed entirely in the driving compartment and be securely bolted to the chassis.
- D. Steering wheels and shift knobs are free.
- E. Spoilers and splitters are free providing they do not exceed maximum body width and do not exceed the factory body length by more than one inch. Installed devices must be consistent with the spirit of the original design of the car such as those presented by aftermarket sources. For example, homemade panels attached to the car would not conform to the spirit of the original design unless they emulate such a part, such as splitter panel. Dive plates are prohibited.
  - 1. Spoilers, splitters and airdams provide aerodynamic effect by altering airflow direction.
    - a. Splitter – An aerodynamic piece which is parallel to the ground and attaches to the bottom of the front bumper cover or airdam.
    - b. Airdam – An aerodynamic piece which attaches to the underside of the bumper or bumper cover (e.g., E30 chassis cars other than the M3 have a bumper cover and

the lower part is an airdam. They are not one piece as in the E30 M3 or E36 chassis cars)

c. Spoiler – The aerodynamic piece that is usually attached to the rear decklid. Any piece off the front of the car that is intended to produce aerodynamic benefit is considered a spoiler.

2. Wings are restricted to factory-original or factory-optional configurations for the year, chassis and model, or aftermarket products that exactly duplicate either the original or optional factory units. Allowable aftermarket parts must not alter the shape, height or adjustability of the wing. Wings provide aerodynamic effect by use of an airfoil section.
- F. E30 M3s - may use aftermarket front one-piece bumper/air dam unit provided the original crash bar is maintained OR the assembly is otherwise reinforced to equal strength as the original assembly.
  - G. E36 M3s - Front splitters are permitted but must not exceed the factory M3 LTW configuration.
  - H. Modifications to the underside of the vehicle for the purpose of improving aerodynamics are not allowed (e.g., diffusers).
  - I. Interiors, with the exception of rear seats and the panels affected by the installation of the roll cage, must be intact. A passenger seat is required. The passenger seat must either be a stock seat or meet the same requirements as the driver's seat. Headliners must remain in place.
  - J. Spare tire, tools and associated assemblies may be removed (i.e. 318ti).
  - K. The air conditioning condenser located in front of the radiator, the electrical fan and its protective shroud may be removed. All remaining air conditioning system parts (A/C lines, dryer, compressor, etc.) must remain in place.

## 8. Fuel Cells

- A. Fuel cells may be used. The stock tank may be retained or replaced so long as the location and installation requirements in paragraph C are met. For cars in which the factory stock tank is non-metallic, all factory-installed heat shields must remain intact. If a fuel cell is installed and the stock tank is also 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.
- B. 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.
  1. 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.
  2. 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 cells shall be located within twelve (12) inches of the original fuel tank location. (An exception to this location requirement is any model

where the original fuel tank is located beneath the rear seats). Additional reinforcement may be added to support the fuel cell, but such reinforcement shall not be attached to the roll cage in stock and prepared classes. The floor pan may be modified for installation. There shall be a sealed metal bulkhead between the driver/passenger compartment and the compartment containing the fuel cell.

## **9. Electrical Fuel Pumps**

A mechanical fuel pump may be replaced with an electrical fuel pump provided that it is wired so as to be controlled by the ignition system, to ensure shut down in the case of an accident requiring electrical cut-off.

## **10. Data Acquisition**

Data acquisition devices, including gauges, are free in Stock 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.



## PREPARED CLASSES

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

**Prepared classes** are based on the stock class of the chassis and model, e.g. a chassis/model classed as a “J” class car in Stock will be a “J” class car in Prepared class.

Allowed modifications in addition to those allowed in Stock Classes:

### 1. Engine

#### A. Intake system:

1. Four cylinder engines originally equipped with carburetion are permitted two carburetors. Engines with 6 or more cylinders that were originally equipped with carburetion are permitted three carburetors.
2. Carburetion in excess of the limits of Section 1A1 or 1A2 above will result in the car being moved up one class. Modifications/changes to the intake manifold to accept additional carburetor(s) is allowed.
3. Throttle bodies, air horns and intake plenums are free but must remain in original configuration, e.g. multiple throttle bodies may not be substituted for a single throttle body.
4. Fuel injection air metering devices must remain in the stock configuration and operation. An originally equipped air flow meter (AFM) or air mass meter (AMM) may not be replaced with an aftermarket mass air flow sensor (MAF). Further, an AFM may not be substituted for an AMM or vice-versa. However, any originally equipped AFM or AMM may be upgraded in size with another stock BMW AFM or AMM provided the internal construction and operation is identical, i.e. air flap, hot wire or hot film.

B. Camshaft lift and duration may be changed from stock. Cam gears and valve springs are free. No other internal engine changes are allowed.

C. Non-OEM ignition systems are allowed.

D. OBD II equipped cars may retrofit engine electronics to the pre-OBD II factory system which came on the same model and engine type. Engine management systems other than the stock ECU are not allowed. Engine Control Unit (ECU) chips, PROM or other engine management programming internal to the ECU is free so long as the ECU configuration remains stock (Example: a PROM cannot be used to replace a chip or vice versa). 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.

E. All pistons must be factory replacement spec and match factory dome, dish, valve relief configuration, ring geometry, weight, wrist pin height;

compression must meet factory replacement specifications. A maximum of .040 (1mm) overbore is allowed. Compression ratio may be changed only within the tolerances effected by resurfacing for trueness.

- F. Injectors are free.
- G. Exhaust systems are free.
- H. "Engine swap" cars will be classed based upon the engine. Providing that the car meets the weight minimum of the chassis, model AND year for which the engine was originally designed. **Eurospec cars are required to run in the next highest class AND are assigned a minimum weight equal to 105% of the originally classed base chassis. Eurospec engined cars that do not have an USA production equivalent engine are classed in the appropriate Modified class.**
- I. Motor and Transmission mounts can be changed for increased strength. Any replacement unit must be the same height as stock for the model year and options of the vehicle. Fabricated solid mounts are allowed.
- J. 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.

Electrically operated fans with manual or automatic actuation may be fitted.

Screens of one-fourth (1/4) inch minimum mesh may be mounted in front of the radiator and/or oil cooler(s) and contained within the bodywork.

## 2. Suspension

- A. Adjustable front camber plates/slotting to achieve suspension settings is allowed. Pick-up points cannot be welded or machined for adjustment purposes.
- B. Rear camber adjustment is allowed. Suspension components that control rear camber may be replaced with aftermarket components to provide this adjustment.
- C. Height adjustable front coil-over setups mounted in the original location are permitted.
- D. 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 original manner and location. Height adjustable rear coilovers are allowed only in cars originally factory equipped with coilover suspensions.
- E. External reservoir shock absorber systems are allowed through December 31, 2005. After that date external reservoir shock absorbers will no longer be allowed in Prepared classes.
- F. Shock absorbers with adjustment capability other than compression and rebound ("double adjustable") are prohibited.
- G. Suspension bushing material is free. Bushing material does not include replacement of bushings with spherical bearings or rod ends such as Heim ends. Solid bushings are allowed if they are fixed in place and allow

rotation only in a single plane or axis. Spherical bearing type upper strut mounts are allowed. Sway bar link connectors are free.

### 3. Tires and Wheels

- A. Any wheel and DOT-approved tire combination that fits under the stock body. Fender and wheel openings shall remain unmodified except that it is permitted to roll under or flatten any interior lip on a wheel opening for tire clearance purposes. Exception: 1600 and 2002 models may flare fenders.
- B. 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.
- C. Vehicles with stock 4 lug hubs may be upgraded to 5 lug hubs so long as the wheel and tire combinations used do not exceed the limits with respect to the above paragraphs.

### 4. Brakes

- A. Rotors are free (except carbon rotors are not allowed). The rotors must fit within wheels that comply with paragraph 3.A, above.
- B. Calipers are free with the following limitations: 4 piston maximum, 2-piece design, 1 caliper per wheel.
- C. The number of master cylinders must be as supplied by the factory.
- D. Master cylinders may be modified to increase volumetric flow.
- E. Cockpit adjustable brake bias control is NOT permitted.
- F. Brake Drums are free (i.e., 1600/2002 and 320 models).

### 5. Differential

- A. Ratio of the ring and pinion is free.
- B. Non-factory limited slip of any type is allowed.

### 6. Transmission/Flywheel Assembly

- A. BMW OEM transmission as originally equipped or factory alternate transmission designed for the chassis/model/year must be used. No changes to the case or internals are permitted. NOTE: Engine swap cars must use the transmission applicable to the chassis, not the engine.
- B. The flywheel is free except that it must be constructed of either ferrous material or aluminum.
- C. Clutch may be lightened or replaced with alternate materials. The clutch and pressure plate shall be the same size and number of clutch disk(s) as originally equipped for the chassis, model and year.

## 7. Body/Chassis/Interior

- A. Openings in the front air dam/spoiler/bumper cover to provide for ducting to additional coolers (oil, transmission, and differential) and are permitted. **Headlight removal for ducting is not permitted.**
- B. Spoilers and wings are free providing they do not exceed maximum body width and are no higher than the roofline. **Dive plates are allowed. Additionally, no aerodynamic device may be installed which has the capability of being controlled, altered or adjusted by the driver or any other means while the car is in motion.** Maximum body width is defined as widest point of the beam of the racecar at the front or rear structural quarter panels or doors, including allowed flares. Mirrors or other similar items are not considered part of the body for width determination.
- C. Interior may be removed, except dash and door panels providing the car "conforms to the spirit" of the BMW CCA Club Racing Program, i.e., it is aesthetically pleasing. Driver and passenger side door(s) panels may be altered or removed to accept side door impact bars. The OEM driver and passenger door panel(s) may be replaced with 0.060" aluminum or a comparable material, securely attached to the door, as per the most current SCCA Improved Touring regulations. Stock door and sunroof operating mechanisms are considered part of the interior and may be removed. However, any door adjacent to a seat equipped with seat belts or harness must be capable of being opened from both inside and outside of the car.

**NOTE:** Interior is defined to include carpeting, seats, headliner, sound deadening materials, trim panels (door panels), console, entertainment and navigation systems, speakers, sun visors, and the sunroof mechanism, if one is present. If the sunroof mechanism is removed, the panel must either be securely sealed (welded/bonded) or secured in place with two retaining straps 1 inch wide and extending 3 inches beyond the sunroof opening on each side. The panel must be flush with the roofline. The sunroof panel must be of the same materials as originally manufactured in Prepared and may be of any metallic or composite material in Modified/Super Modified.

- D. All heating and air conditioning components may be removed as long as vehicle meets minimum weight specification. Heater components are
- E. Quick ratio units for steering boxes or rack and pinion steering assemblies may be used
- F. Ducting to provide airflow to additional coolers (transmission, oil, and differential) is permitted.

## **MODIFIED and SUPER MODIFIED CLASSES**

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

The SUPER MODIFIED class is intended for racecars where the modifications exceed those allowed in the Modified classes and, additionally, for those designated purpose-built, BMW-powered racecars which meet the eligibility criteria. All Modified Class improvements are also allowed in Super Modified class.

Allowed modifications in addition to those allowed in Stock & Prepared Classes:

### **1. Engine**

- A. Must retain a BMW OEM engine block or case. Other changes or modifications are free.
- B. Nitrous oxide is not allowed.
- C. 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%).

### **2. Suspension**

- A. Free, except that cockpit adjustable sway bars are only allowed in Super Modified.
- B. Shock absorbers are free.

### **3. Data Acquisition**

- A. Engine and Suspension data acquisition is free.

### **4. Tires and Wheels**

- A. Any tire and wheel combination meeting the safety requirements of the BMW CCA Club Racing Program technical inspectors is allowed.
- B. Tire and wheel package must be completely covered by the bodywork and have sufficient clearance to prevent rubbing which could be considered dangerous.
- C. Non-DOT approved race tires ("slicks"), including rain tires, are allowed.
- D. 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.

## **5. Brakes**

- A. Brakes are free, except that carbon rotors are not allowed in Modified. Free includes cockpit-adjustable brake biasing.
- B. Brake lights are required and must be as bright and as easily seen as stock brake lights.

## **6. Differential**

- A. Free.

## **7. Transmission/Flywheel Assembly**

- A. Modified cars must use BMW OEM transmission of any kind and ratio. Super Modified is free including sequential shifters.
- B. Flywheel lightening or replacement is allowed. Modified cars must use either a ferrous or aluminum flywheel. The flywheel is free in Super Modified.
- C. Clutch and pressure plate are free.

## **8. Drive Shaft**

- A. The drive shaft must be constructed of ferrous materials in Modified. In Super Modified the drive shaft material is free.

## **9. Body, Chassis, Interior and Windows**

- A. Fenders may be flared to cover wheels and tires.
- B. Doors, fenders, hood, bumpers, and decklids may be replaced with fiberglass or composite materials.
- C. Cutting of non-stock openings and removal of headlights is allowed.
- D. Windows:
  - 1. Windows, with the exception of the windshield, may be replaced with alternate materials.
  - 2. Side windows may be removed.
  - 3. Windshields may be replaced with polycarbonate of minimum 1/8" thickness. Front and rear windshield retaining clips are required for non-glass windshields. A minimum of four retaining clips (two top and two bottom) or two retaining straps and two windshield supporting bars are required.
- E. Removal of interior is allowed providing the car "conforms to the spirit" of the BMW CCA Club Racing Program (i.e., aesthetically pleasing).
- F. Partial tubeframe construction is allowed. Construction must be based upon factory chassis. VIN numbers on the cowl and doorframe must be in place. The A and B pillars must be OEM both in angles and location. Roof must be OEM. OEM rocker panels must be used.
- G. Non-critical sheet metal (spare tire wells, etc) may be removed. Removal may not be primarily intended to provide aerodynamic benefit.
- H. Unibody seams may be fully or stitch welded.

## **10. Fuel Cells**

- A. Fuel cells are required in Super Modified.
- B. Modified class cars must have a fuel cell except for cars where the factory stock fuel tank is located forward of the rear axle (e.g., E30, E36 and E46 chassis). For cars in which the factory stock tank is non-metallic, all factory-installed heat shields must remain intact.
- C. Specifications for fuel cell construction and installation are contained in Stock Class, Paragraph 8.

**11. Designated purpose-built racecars with BMW power eligible to participate in Super Modified.**

- A. Tube Frame SCCA GT and similar lineage race cars with a logbook issued by BMW CCA Club Racing prior to June 2002. Logbooks will not be issued to this type of vehicle effective June 2002.
- B. Factory constructed or factory authorized tube frame chassis racecars.
  - 1. Chevron
  - 2. Elva
  - 3. Osella
  - 4. McClaren GTR



## HISTORIC CLASS

This class is designed to be run under vintage “exhibition” rules as a separate race group if a sufficient number of entries and available scheduling allow. Eligible open wheel cars would be permitted in this class.

Cars in this class may be exempt from some safety regulations found in other racing classes, but will still be required to undergo a complete tech inspection.

Passing will be held to a minimum, only in designated zones and only with proper signaling from the driver of the car being overtaken.

Drivers must meet all series standards for licensing and safety equipment

The decision to be allowed to run in this class rests entirely with BMW CCA Club Racing personnel.



# PROTESTS AND APPEALS

## *Protests*

1. A protest shall concern a decision, act, or omission of the organizers, officials, car, driver, or other person connected with the competition, which is considered to be a violation of these rules, except that a protest against a refusal of entry or license certification shall not be allowed. A fee of \$50.00 in cash or check shall accompany each protest.
2. Each protest shall be made in writing, specifying the protestee's car number, brief description of car, rules infraction with section number, etc. The protest shall be addressed to the Protest Committee and signed by at least one entrant. Protests should be submitted prior to qualifying or race sessions to allow proper reclassification, but must be submitted within 30 minutes of completion of the last timed run of the protested car. The fee shall be returned if, and only if, the protest is upheld; otherwise the fee will go to the BMW CCA Club Racing treasury.
3. The Protest Committee has the right to impound any car(s). It is the driver's responsibility to present his car as required. The car must remain unchanged until released by the Protest Committee.
4. Any BMW CCA Club Racing official may file an Official Action which functions in the same manner as a protest except that no fee is required. Any racer officially entered in an event may file a protest on any car or driver entered in the same event.
5. The protester may request that the car be dismantled, inspected, or any other test made, provided that, if a driver, they post a cash bond with the Protest Committee sufficient to cover the total expense of disassembly, inspection and reassembly. If the car shall be found upon inspection to conform to the rules, the protester shall forfeit the bond, which shall be used to cover costs involved. If the car is found upon inspection not to conform to the rules, the protester's bond shall be returned and the driver of the protested car shall bear all expenses and be subject to penalty.
6. The Protest Committee shall hear the arguments of both the protestee and the protestor and, by majority vote, determine the validity of the Protest. The Committee shall determine penalties for upheld protests, which are appropriate to the seriousness of the offense. It is not necessary that every protest result in disqualification. The Protest Committee may deny any protest deemed to be spurious or a nuisance, particularly if it concerns non-performance-affecting items. If a car is found to be improperly classified or to have unauthorized modifications, any penalties shall be assessed against all drivers of that car.
7. The event's Competition Steward shall be the chairman of the Protest Committee. He shall appoint two other committee members, one of whom may be the event's Technical Steward and shall appoint alternates. He shall prominently post their names at the event prior to the first on-track session. The alternate(s) will act as a committee member if any member is involved in the protest or may otherwise have conflict of interest, or is not available.

## **Appeals**

1. Decisions of a Protest Committee or **13/13 Penalties** may be appealed to the Club Racing National Appeal Committee, consisting of the National Competition Steward and National Technical Steward, one Regional Competition Steward, one Regional Technical Steward, and one Club Racing Advisory Committee member. An appeal shall be in writing and addressed to the BMW CCA National Competition Steward. A \$50.00 appeal fee of either cash or check must accompany the appeal. The National Competition Steward must receive both within 14 days of the date of occurrence of the incident or infraction being appealed. The appeal must specify the grounds for appeal and must contain all information that the appellant wishes to be considered in the appeal. The Club Racing National Appeal Committee will make the final decision whether or not the appeal is well-founded and should be heard, and whether the appeal fee should be returned or forfeited. The decision of the National Appeal Committee shall be final, binding, and not subject to appeal. The fee shall be returned if the appeal is resolved in favor of the appellant, otherwise the fee will go to the Club Racing treasury. Any committee member who was involved in the initial protest or 13/13 penalty or may otherwise have a conflict of interest may not participate in the appeal discussion or vote. Appeal decisions will be decided by majority vote. In the event of a conflict of interest, the National Club Racing Chairman will appoint a substitute member of the Club Racing staff as a replacement for any other Club Racing staff member. The Chairman retains full discretion in the determination of whether a conflict exists and warrants replacement of the committee member(s).
2. The Club Racing Advisory Committee will name the CRAC representative to the Committee within 3 days of being notified. If CRAC fails for any reason to name a representative, the Committee remains fully empowered to hear and issue a final ruling on the appeal.
3. In the case of appeal of a 13/13 penalty, the Competition Steward who issued the penalty must submit his incident report to the National Competition Steward within 7 days of the date of the incident. Failure to do so shall result in an automatic review of the penalty under appeal by the National Competition Steward. Without overwhelming evidence that the penalty is proper, the NCS shall dismiss the penalty specific to the appeal in question. The National Chairman shall substitute for the NCS if there is a conflict of interest.
4. The National Appeal Committee must submit its findings to the National Competition Steward such as to permit notification of the racer within 45 days of the date of the incident. Failure of a reasonable attempt to contact the racer by midnight Eastern Time on the 45<sup>th</sup> day shall result in an automatic reversal of the penalty under appeal. Contact attempt may include email or voice messaging or delivery by first class US mail. The racer is responsible for providing accurate contact information.

# RULES PROCESS

## ***Rules Clarifications***

1. The purpose of a Rules clarification is to resolve questions about the rules without recourse to an official protest against one entrant by another.
  - A. All rules clarifications shall be made by the Club Racing Rules Committee, with the National Technical Steward being responsible for communicating the clarification via the national club racing website.
  - B. A request for clarification may be made by any BMW CCA member who possesses or has applied for a BMW CCA Club Racing license.
  - C. A request for Rules Clarification shall be submitted in writing (email is acceptable) to the National Tech Steward. The request shall cite the paragraph and Rules page number of the item in question and shall be signed by the requestor.
  - D. There shall be no charge for the request.
  - E. A response will be determined by the Rules Committee and a written reply shall be sent from National Tech Steward to the requestor within 30 days of the request and shall be posted on the national Club Racing website.
  - G. A written Rules Clarification is considered part of the current year rules and therefore may be used in future protest and enforcement action. Such clarification shall be effective 30 days after publication and expire with publication of the next year's rules unless incorporated into the rules.
  - H. The Rules Committee may refuse to act on clarification requests if the Committee deems the request as frivolous.

**NOTE:** Informal questions from current or prospective racers are welcome at any time. The Rules Clarification procedure facilitates formal inquiries or requested changes to the current rules.

## **Rule Changes**

This section describes the method for updating and changing these rules. The Club Racing Rules Committee is responsible for this process as detailed in the following paragraphs. Rules changes will become effective at the start of the next calendar year's season unless otherwise specified. Rules changes at other times are also specified below.

## **Club Racing Rules Committee**

The Club Racing Rules Committee is comprised of the Club Racing Chairman, the National Competition Steward, the National Technical Steward, and one

representative of the Club Racing Advisory Committee (CRAC) appointed by the CRAC. The CRAC will officially advise the Club Racing Chairman of its representational appointment by February 1 of each year. The appointment will continue until the end of the calendar year or until officially rescinded by CRAC. Should CRAC fail to make the appointment of their representative in a timely fashion, the Rules Committee is explicitly empowered to conduct all business normally attributed to the committee.

## **Rules Change Calendar**

Prior to May 1 of each year, licensed Club Racing participants shall be invited (by CR newsletter or other means) to submit written requests and suggestions for rules updates for the next calendar year. The Club Racing Rules Committee shall review this input and, from these and other sources including the Club Racing Advisory Committee (CRAC), shall prepare a set of proposed rule changes. This proposal shall be published and distributed to licensed Club Racing participants, along with a request for comment. Taking the responses into consideration, the Club Racing Rules Committee shall finalize and publish the rules changes.

June 1 - deadline to send rules change proposals to the Club Racing Rules Committee.

July 15 - Proposed rules are posted to the national Club Racing website and available for Racer comment.

August 1 - Comment period closes.

September CR newsletter and/or website - final rules changes posted on website. **New rulebooks will be finalized and posted to the website no later than November 1. The rulebook may be downloaded from the website. Any currently licensed racer unable to download the rules may send a written request to the National Licensing Administrator who will then send a rulebook by mail to the racer.**

**Racers are required to keep their records and contact information, including postal address and e-mail address, current with the National Licensing Administrator.**

## **Changes in Mid-year**

It may be necessary to make rule changes during the course of the season. For such changes, the Club Racing Rules Committee shall prepare a change proposal and present it to the CRAC for review and comment period of one week. After careful consideration of the input from CRAC, the Club Racing Rules Committee shall finalize the change and the rule change shall become effective

on the date specified. The rules change will be implemented and the changes posted to the national Club Racing website not more than two weeks after CRAC presents its input.

“The rules are intended to present a stable platform for the limits on preparation and should not undergo philosophical changes on a continuing basis. The Rules Committee is committed to maintaining the levels of preparation (stock, prepared, modified and super-modified) as presented for a minimum period of two years. Some changes have been presented with deferred implementation dates to allow the racers to properly budget and plan. The Rules Committee is also committed to preventing progressive upward movement in preparation levels, otherwise known as ‘class creep.’ This does not preclude the implementation of safety items, correction of errors or omissions or other such items that the Committee feels necessary.”

The Rules Committee can correct errors and omissions and issue clarifications at any time.

## **Club Racing Advisory Committee (CRAC)**

The Club Racing Advisory Committee (CRAC) is comprised of licensed BMW CCA Club Racers chosen by a vote of the Club Racing participants from each region of the country. The regions are defined to be the same geographical areas as those defined for BMW CCA national regions. The elected CRAC representatives shall serve a term of two years.

In the event of the resignation or other departure from service by any CRAC member, the Club Racing Chairman shall solicit volunteers from within the affected region. The Club Racing Chairman will appoint a replacement from the volunteer pool, subject to approval by the BMW CCA Regional Vice-President. The appointee shall fill the position until the next election cycle.

## APPENDIX A

### Roll Cage Specifications

All vehicles competing in the BMW CCA Club Racing program must be equipped with an approved roll cage. The main (rear) hoop must be securely mounted, either bolted or welded, to the floor and/or longitudinal members of the unibody with the top of the main hoop as close to the roof as possible in closed cars and at least 2" above the driver's helmet when the driver is seated in the normal driving position in open cars. The mounting area of the "bolt-in" roll cage must be backed by a plate of a size equal to that of the upper mounting plate with a minimum thickness of 3/16". Bolts must be grade 5 or higher. The roll cage must be mounted directly to the metal of the chassis and any padding, carpet, upholstery, etc., must be removed to satisfy this requirement. The roll cage must be full cockpit width, except as originally supplied by the factory for open race cars, and have two fore/aft braces of tubing size equal to the main hoop. The brace must be mounted as near the top of the hoop as possible and at an included angle of at least 30 degrees.

Additionally, the cage assembly must contain a transverse (horizontal, left to right side) brace, which can be used for seatbelt harness mounting and as the attachment point for the seat back brace. The cage assembly main hoop must contain a diagonal brace (A-D, B-C, A-F, or B-E on the diagram). An inspection hole 3/16" in diameter must be provided in a non-critical area for verification of tube thickness. Any portion of the cage which may come in contact with the driver's helmet must be covered with high density foam 1" thick held in place with electrical or duct tape or tie wraps.

The main and front hoops and fore and aft braces must have the following minimum diameter and wall thickness based upon the maximum weight of the race car with the driver, all fluids and a full fuel supply:

	<u>Under 2500 lbs</u>	<u>Over 2500 lbs</u>
Mild Steel	1.5" x .095"	1.75" x .095" OR
		1.50" x .120"
Alloy Steel	1.375" x .095"	1.50" x .095"

The tubing type shall be DOM. ERW type tubing is not allowed. Cars with logbooks first issued prior to July 1, 2003 which have ERW type tubing will be grandfathered.

Other components of the roll cage need not have the same diameter and wall thickness as that of the required components.

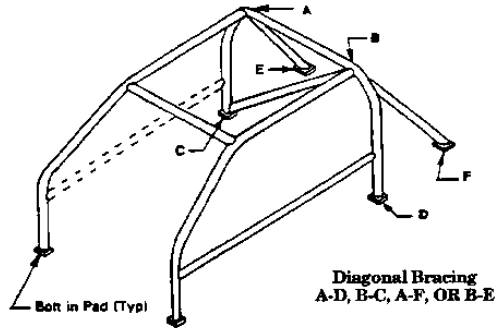
FIA approved roll cages with a manufacturer's certificate of approval are allowed with any required braces being added.

It is strongly recommended that an experienced roll cage constructor be consulted in the cage design and installation. Any questions contact a BMW CCA Club Racing Technical Steward.

**EXAMPLE ROLL CAGE SPECIFICATIONS**

Strongly recommend minimum standard for all vehicles.

Tubing Joints - See Figures 2, 3, and 4



Diagonal Bracing  
A-D, B-C, A-F, OR B-E

Figure 1



Figure 2

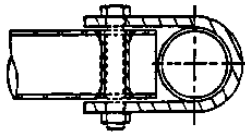


Figure 3

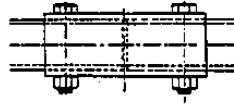


Figure 4

## APPENDIX B

### Electrical Disconnect Specifications

A standard electrical disconnect (battery cut-off) switch is strongly recommended on all cars competing in the BMW CCA Club Racing program and is required for all racecars competing in classes other than Stock effective January 1, 2005.

This switch must be wired such that electrical power to all circuits including alternator, except an electrically operated on-board fire system, is disconnected. In the interest of convenience, the switch may be mounted in the compartment near the battery and operation effected by a pull wire passing to the outside. The preferred location of the pull wire is on the driver's side. It must be clearly visible and its position marked with an approved decal of "lightening bolt" and the word "OFF". The decal can be placed on the window glass as opposed to the bodywork, as close as possible to the pull wire. It is recommended that the pull wire be painted red for visibility. Those vehicles with a permanently mounted switch or pull wire in another location will be allowed that alternate location providing the position is clearly marked with the approved decal and the switch or pull wire is easily accessible from outside the vehicle.

This requirement does not have to be viewed as a difficult one with which to comply and can very easily be accomplished with the fabrication of a simple bracket to hold the switch near the battery. Braided wire can be used for the pull and it should pass through a small bracket mounted inside the compartment. A loop in the end of the cable completes the installation. Pulling the cable rotates the switch and disconnects the battery from the circuit.

## APPENDIX C

### Vehicle Classification and Specifications

#### 1. ***Stock and Prepared***

Cars will be initially classified based upon published factory stock weight (lbs) and published factory stock power (SAE bhp) using lbs/bhp ratios as follows:

- H = under 12.50 lbs/bhp
- I = 12.50 to 13.99
- J = 14.00 to 16.59
- K = 16.60 to 18.99
- L = 19.00 to 22.49
- M = 22.50 and over

#### 2. ***Modified***

Cars will be classified based upon actual engine displacement as follows:

- A = over 5000cc
- B = 3500cc to 5000cc
- C = 2981cc to 3499cc
- D = 2200cc to 2980cc
- E = 1800cc to 2199cc
- F = under 1800cc

### 3. Official Vehicle Specifications

Factory Code	Model	Product Years		Fact BHP	Fact Wt	Stock Wt	Lbs./bhp	Class	PREP Wt
Type 114	1602	1971	1975	85	2161	2161	25.42	M	2075
Type 114	2002	1968	1973	106	2210	2210	20.85	L	2122
Type 114	1600-2	1966	1971	85	2072	2072	24.38	M	1989
Type 114	1600TI	1967	1968	105	2116	2116	20.15	L	2031
Type 118	1500 4-dr	1962	1964	90	2370	2370	26.33	M	2275
Type 118	1600 4-dr	1964	1966	83	2359	2359	28.42	M	2265
Type 118	1800 4-dr	1963	1971	90	2403	2403	26.70	M	2307
Type 118	1800TI 4-dr	1964	1966	124	2400	2400	19.35	L	2304
Type 121	2000cs	1965	1970	121	2646	2646	21.87	L	2540
Type 121	2000TI 4-dr	1966	1970	135	2535	2535	18.78	K	2434
Type 121	2000tii	1969	1972	130	2579	2310	17.77	K	2218
E3	2500	1968	1976	170	3005	3005	17.68	K	2885
E3	2800	1968	1971	170	2998	2998	17.64	K	2878
E3	3.0s	1973	1976	170	3320	3320	19.53	L	3187
E3	3.0si	1975	1976	176	3420	3420	19.43	L	3283
E3	Bavaria	1971	1972	170	2954	2954	17.38	K	2836
E3	Bavaria	1973	1974	180	3235	3235	17.97	K	3106
E3	Bav.Euro 2.8	1976	1976	170	3420	3420	20.12	L	3283
E6	2002	1974	1976	106	2370	2210	20.85	L	2122
E6	2002tii	1971	1973	130	2310	2310	17.77	K	2218
E6	2002tii	1974	1974	125	2420	2310	18.48	K	2218
E9	2800cs	1968	1971	170	3025	3025	17.79	K	2904
E9	3.0cs	1971	1975	180	3175	3175	17.64	K	3048
E9	3.0csi	1971	1975	176	3086	3086	17.53	K	2963
E9	3.0csL	1973	1975	206	2800	2800	13.59	I	2688
E10	2002 Turbo	1973	1974	170	2290	2290	13.47	I	2198
E12/6	528i	1979	1979	169	3320	3180	18.82	K	3053
E12/6	528i	1980	1981	169	3180	3180	18.82	K	3053
E12/6	530i	1975	1976	176	3300	3300	18.75	K	3168
E12/6	530i	1977	1978	176	3300	3300	18.75	K	3168
E21	320i	1977	1979	110	2601	2601	23.65	M	2497
E21	320i	1980	1983	101	2396	2396	23.72	M	2300
E21	320is	1978	1979	110	2601	2601	23.65	M	2497
E21	320is	1980	1983	101	2396	2396	23.72	M	2300
E24	630csi	1977	1977	176	3420	3280	18.64	K	3149
E24	633csi	1978	1982	177	3500	3280	18.53	K	3149
E24	633csi	1983	1984	181	3280	3280	18.12	K	3149
E24	635csi	1985	1986	182	3375	3375	18.54	K	3240
E24	635csi	1988	1989	208	3550	3550	17.07	K	3408

Factory Code	Model	Product Years	Fact BHP	Fact Wt	Stock Wt	Lbs./bhp	Class	PREP Wt
E24	635csi Euro	1978 1984	218	3153	3153	14.46	J	3027
E24	M6	1987 1989	256	3570	3570	13.95	I	3427
E24	M6 Euro	1983 1989	286	3308	3308	11.57	H	3176
E28	528e	1982 1988	121	3100	3100	25.62	M	2976
E28	533i	1982 1984	181	3120	3120	17.24	K	2995
E28	535i	1985 1988	182	3270	3270	17.97	K	3139
E28	535is	1987 1988	182	3270	3270	17.97	K	3139
E28	M5	1987 1988	256	3420	3420	13.36	I	3283
E28	M5 Euro	1987 1988	286	3155	3155	11.03	H	3029
E28	M535i Euro	1986 1986	218	3058	3058	14.03	J	2936
E30	325	1987 1988	121	2765	2765	22.85	M	2654
E30	316 Euro	1984 1990	90	2183	2183	24.26	M	2096
E30	318i	1984 1985	102	2361	2361	23.15	M	2267
E30	318i 4-dr	1990 1991	134	2657	2602	19.42	L	2498
E30	318is	1990 1991	134	2602	2602	19.42	L	2498
E30	325/325e	1984 1985	121	2770	2770	22.89	M	2659
E30	325/325e	1986 1986	121	2770	2770	22.89	M	2659
E30	325es	1986 1988	121	2785	2785	23.02	M	2674
E30	325i	1987 1988	168	2850	2811	16.73	K	2699
E30	325i	1989 1989	168	2895	2811	16.73	K	2699
E30	325i	1990 1991	168	2811	2811	16.73	K	2699
E30	325is	1987 1988	168	2815	2811	16.73	K	2699
E30	325is	1989 1991	168	2865	2811	16.73	K	2699
E30	325ix	1988 1990	168	3010	2955	17.59	K	2837
E30	325ix	1991 1991	168	2955	2955	17.59	K	2837
E30	M3	1988 1991	192	2733	2733	14.23	J	2624
E31	850csi	1994 1994	372	4240	4240	11.40	H	4070
E34	525i	1989 1990	168	3395	3395	20.21	L	3259
E34	525i	1991 1992	189	3484	3484	18.43	K	3345
E34	525i	1993 1995	189	3484	3484	18.43	K	3345
E34	530i	1993 1995	215	3627	3627	16.87	K	3482
E34	535i	1989 1993	208	3570	3570	17.16	K	3427
E34	540i	1995 1995	282	3693	3693	13.10	I	3545
E34	M5	1991 1993	310	3805	3805	12.27	H	3653
E36	318i 4-dr	1992 1994	138	2867	2867	20.78	L	2752
E36	318i 4-dr	1995 1995	138	2933	2867	20.78	L	2752
E36	318i 4-dr	1996 1997	138	2976	2867	20.78	L	2752
E36	318is	1992 1994	138	2867	2867	20.78	L	2752
E36	318is	1995 1995	138	2933	2867	20.78	L	2752
E36	318is	1996 1997	138	2976	2867	20.78	L	2752
E36	323is	1998 1998	168	3075	3075	18.30	K	2952
E36	325i 4-dr	1992 1992	189	3087	3021	15.98	J	2900
Factory Code	Model	Product Years	Fact BHP	Fact Wt	Stock Wt	Lbs./bhp	Class	PREP Wt

E36	325i 4-dr	1993	1995	189	3087	3021	15.98	J	2900
E36	325is	1992	1992	189	3021	3021	15.98	J	2900
E36	325is	1993	1995	189	3087	3021	15.98	J	2900
E36	328i 4-dr	1996	1998	190	3120	3120	16.42	J	2995
E36	328is	1996	1998	190	3120	3120	16.42	J	2995
E36	M3	1995	1995	240	3175	3175	13.23	I	3048
E36	M3	1996	1999	240	3175	3175	13.23	I	3048
E36	M3 4-dr	1996	1998	240	3175	3175	13.23	I	3048
E36	M3 Light Wt	1995	1995	240	2950	2950	12.29	H	2832
E36/5	318ti	1995	1995	138	2745	2745	19.89	L	2635
E36/5	318ti	1996	1999	138	2745	2745	19.89	L	2635
E36/5	318ti Active	1996	1999	138	2745	2745	19.89	L	2635
E36/7	Z3 1.9	1997	1998	138	2701	2701	19.57	L	2593
E36/7	Z3 2.3	1999	2000	170	2899	2899	17.05	K	2783
E36/7	Z3 2.8	1997	1998	189	2844	2844	15.05	J	2730
E36/7	Z3 2.8	1999	2000	193	2910	2844	14.74	J	2730
E36/7	Z3 2.5i	2001	2002	184	2899	2899	15.76	J	2783
E36/7	Z3 3.0i	2001	2002	225	2910	2910	12.93	I	2794
E36/7S	M Roadster	1998	2000	240	3086	3086	12.86	I	2963
E36/7S	M Roadster	2001	2001	315	3086	3086	9.80	H	2963
E36/7S	M Roadster	2002	2002	315	3131	3086	9.80	H	2963
E36/8	Z3 Cpe 2.8	1999	2000	193	2943	2943	15.25	J	2825
E36/8	Z3 Cpe 3.0i	2001	2002	225	2943	2943	13.08	I	2825
E36/8S	M Coupe	1998	2000	240	3131	3131	13.05	I	3006
E36/8S	M Coupe	2001	2002	315	3131	3131	9.94	H	3006
E39	525i	2001	2003	184	3450	3450	18.75	K	3312
E39	528i	1997	1998	190	3450	3450	18.16	K	3312
E39	528i	1999	2000	193	3495	3495	18.11	K	3355
E39	530i	2001	2003	225	3494	3494	15.53	J	3354
E39	540i	1997	1998	282	3748	3748	13.29	I	3598
E39	540i Sport/6	1999	2002	282	3748	3748	13.29	I	3598
E39	540i Sport/6	2003	2003	290	3748	3748	12.92	I	3598
E39	M5	2000	2003	394	4024	4024	10.21	H	3863
E46	323i	1999	2000	170	3153	3153	18.55	K	3027
E46	325Ci	2001	2001	184	3252	3197	17.38	K	3069
E46	325Ci	2002	2003	184	3197	3197	17.38	K	3069
E46	325i	2001	2001	184	3241	3197	17.38	K	3069
E46	325i	2002	2003	184	3219	3197	17.38	K	3069
E46	325xi	2001	2001	184	3494	3461	18.81	K	3323
E46	325xi	2002	2003	184	3461	3461	18.81	K	3323
E46	328i	1999	2000	193	3197	3197	16.56	J	3069
E46	330Ci	2001	2001	225	3351	3285	14.60	J	3154
Factory Code	Model	Product Years		Fact BHP	Fact Wt	Stock Wt	Lbs./bhp	Class	PREP Wt
E46	330Ci	2002	2003	225	3285	3285	14.60	J	3154

E46	330i	2001	2001	225	3318	3285	14.60	J	3154
E46	330i	2002	2003	225	3285	3285	14.60	J	3154
E46	330xi	2001	2001	225	3527	3483	15.48	J	3344
E46	330xi	2002	2003	225	3483	3483	15.48	J	3344
E46	M3	2001	2003	333	3415	3415	10.26	H	3278
E52	Z8	2001	2003	394	3494	3494	8.87	H	3354
E85	Z4 2.5i	2003	2003	184	2932	2932	15.93	J	2815
E85	Z4 3.0i	2003	2003	225	2998	2998	13.32	I	2878
R50	Mini Cooper	2002	2003	115	2524	2524	21.95	L	2423
R53	Mini Cooper S	2002	2003	163	2678	2678	16.43	J	2571

The above list consists of the most common cars. A complete list of cars is available on the national BMW Club Racing website.



## APPENDIX D

# Enduro Supplemental Rules

- An enduro is defined as a race with a scheduled duration of 60 minutes or more.
- For endurance races, the minimum weight shall be measured with the lightest of all drivers who compete in the car.
- Endurance races of less than 90 minutes scheduled duration are required to have one pit stop. Endurance races of more than 90 minutes are required to have one additional pit stop for every 45 minutes of scheduled duration, e.g. a 120 minute enduro is required to have two pit stops and a 150 minute enduro is required to have three pit stops. All mandatory pit stops must be timed as wheels stopped for five minutes. Each team is responsible for timing its own stop. Organizers may have additional personnel timing stops, but they are not obligated to provide timing for competitors.
- A driver change is mandatory for any enduro with a scheduled duration of more than 120 minutes.
- Additional stops during the race are allowed but will not be counted towards the mandatory pit stop requirement if they are shorter than the five minute, wheels-stopped minimum.
- The green flag and checkered flag cannot be taken in the pits unless the vehicle is experiencing a mechanical failure.
- The mandatory pit stop may not be started prior to the car's completion of its first full lap after the start of the race, except as noted below in the Mechanical black flag item.
- The mandatory pit stop must be started prior to the point in time where 10 minutes remains in the scheduled race length. At that point the pits will be closed except for safety-related stops. The stop officially begins when the car comes to a complete stop in the assigned pit.
- Mechanical black flag stops may be used as the mandatory stop so long as the stop meets the 5-minute requirement.
- Black flag stops may not be used as part of the mandatory pit stop.
- **Mandatory Pit Lane Speed Limit 35 MPH (in and out)**
- ✓ **DRIVERS SHOULD TEST THEIR BRAKES WHEN LEAVING THE PITS**
- Driver changes are allowed during pit stops. Alternate drivers must be registered with the event and with Timing & Scoring for the entrant's results to be counted and to be eligible for drawings or points.

- All drivers of record who have driven at least 25% of the scored laps are eligible for event sponsor drawings and points (if awarded). In the event of a shortened race, any registered driver who has not completed laps in the assigned car is not eligible for sponsor awards or points for that race.
- Refueling is allowed during pit stops, however all pit stops where re-fueling is accomplished will be a minimum of 5 minutes in length, measured by time of wheels stopped in the pit.
- Refueling is allowed only in the hot pit.
- Engines are to be off during fueling
- Drivers and crew must be out of the car during fueling, and no other operations may be performed on the car while it is being fueled.
- The fueler must be protected by a fire-retardant suit and have no exposed skin. The suit may be of two-piece construction and military-type fire-retardant flight suits are acceptable for this purpose. Fire-retardant or leather gloves are required. A balaclava or helmet (an M-rated helmet is acceptable for this purpose) and eye protection (goggles, glasses, or helmet shield) are required.
- Each team must have a fireman with a minimum 10 pound rated fire extinguisher. Teams are responsible for providing their own extinguishers. The fireman will stand behind and back from the fueler during fueling and will have **NO OTHER DUTIES EXCEPT FIREMAN DURING FUELING**. The fire extinguisher must be immediately dispensable, i.e. any safety pin must be pulled during fueling and the nozzle aimed at the refueling point.
- It is recommended that the fireman also be in a fire-retardant suit with head and face protection as prescribed above for the fueler. Minimally, the fireman must wear long pants, long-sleeved shirt, enclosed shoes and eye protection as mandated for the fueler. Fire-retardant or leather gloves are required.
- All crew in the hot pits must wear a long pants natural fiber shirt and socks and shoes, which must not be sandals or of another open-toed design. A fire-retardant suit is recommended if refueling is planned or possible during a pit stop.
- Maximum number of team members over the pit wall is 6 including the driver(s).
- No smoking is allowed in the hot pits.
- No children under sixteen years of age are allowed in the hot pits.
- Violations of pit lane rules are subject to penalties depending on the severity of the infraction and at the discretion of the Competition Steward, including stop-and-go, time or lap penalties. **The penalties below are designated as minimum penalties and actual penalties may be more severe**

if, in the sole judgement of the Competition Steward, additional penalties are appropriate.

- Failure to meet the fueling safety requirements will result in a penalty of at least one lap. Severe disregard for safety requirements and procedures may result in possible disqualification.
- Exceeding pit lane speed limits will result in a mandatory stop-and-go penalty under green flag conditions. Additional time may be added to the stop at the Competition Steward's discretion if the violation is deemed particularly excessive.
- Working on the car during refueling or the driver being in the car during refueling is a minimum one-lap penalty.
- Too many crewmembers over the wall during a pit stop will result in a one-lap penalty.
- Passing under a yellow flag, ignoring a black flag or other such situations will be penalized by either a stop-and-go penalty, a time penalty or lap penalty at the Competition Steward's discretion. Typically a stop-and-go penalty would be assigned during the **race under green flag conditions**. Time or lap penalties would normally be assessed in the event of a last-lap infraction or should multiple infractions occur or if the infraction wasn't communicated to the Competition Steward in time to invoke a stop-and-go penalty prior to the end of the race. However, the Competition Steward has final discretion and may use any or all of the penalties as his disposal **including disqualification**.
- Failure to make any mandatory pit stop(s) will result in a time penalty equal to a calculated figure of the minimum pit stop time (five minutes) plus pit lane transit time, including entry and exit time, plus an additional two minutes. In the event of multiple required pit stops, the penalty will be applied for each missed pit stop. The penalty will be applied separately for each mandatory stop that is missed.
- Pitting outside the allowable pit stop window will result in a one-lap penalty.
- All time penalties applied during a stop-and-go penalty will be under green flag racing conditions and may not be considered part of any mandatory pit stop(s).

- Multiple driver cars must register as such prior to the first on-track session. The registrant is responsible for providing the event Timing and Scoring Steward with the driver in the car PRIOR to the start of each session. Failure to properly notify the T&S steward PRIOR to a race will result in a penalty up to and including the car's (and all drivers) disqualification which will also result in loss of all awarded points for that race. Similarly, failure to properly notify the T&S steward PRIOR to a qualifying session will result in the loss of the qualifying time and taking the race start from the back of the grid. Failure to properly notify the T&S steward PRIOR to a practice session will be penalized as deemed appropriate by the Competition Steward.

Additionally, putting an unregistered and/or unlicensed (which includes being licensed but non-current) driver in the racecar will result in immediate disqualification, expulsion of the racecar, the entrant and all drivers from the event and a 13/13 penalty up to and including suspension.

## Rules Under Other Than Green Flag Racing:

- **LOCAL YELLOW** - A Local Yellow is signified by a stationary or waving yellow flag and may be displayed at any staffed corner worker station including Start/Finish. It indicates a potentially dangerous on-track condition or incident exists between the station displaying the flag and the next staffed corner station. No passing is allowed from a point tangential to the first station displaying the waving yellow until safely past the incident, AND until such point as the racer can visually confirm that the next staffed corner station is in a green-flag (i.e., no flag) condition. This last item is important, and is intended to preclude the possibility of passing when multiple incidents exist on the same section of track.

Should a racer make an incorrect pass under yellow, he may slow and wave the car(s) back by which were incorrectly passed. Provided he does so in a timely fashion no penalty will be generally applied. However, the Competition Steward's judgement prevails and he retains full authority in determination of whether a penalty is appropriate regardless of any effort on the part of the offending driver to correct the error. The emphasis is on driver awareness and proper procedure rather than correction of errors.

- **FULL COURSE YELLOW** – Full Course Yellow (FCY) is signified by either a standing yellow flag or two standing yellow (double yellow) flags, if available, at every staffed corner station. No passing is permitted anywhere unless a car slows and provides a clear and definitive point by to other cars. Whenever possible, the Competition Steward will dispatch the pace car onto the track to gather the field. When not in an area(s) that precipitated the Full Course Yellow, drivers should make good time to close the entire field up to the pace car. Should the pace car have other cars between it and the race leader, an official in the pace car may wave cars by so that the lead

car will be immediately behind the pace car. The Competition Steward will delay the restart, if necessary, to give those cars separated from the field a reasonable opportunity to rejoin the field. However, at the Steward's discretion if the separated cars are not making good time to rejoin or for other reasons, the race may be restarted without the full field being rejoined.

No pitting is allowed under a full course yellow except for mechanical or safety issues. Should this be necessary, only the particular mechanical or safety issue(s) may be addressed. Such a safety pit stop may NOT be used to fulfill mandatory pit stop requirements. Refueling and/or driver changes are specifically prohibited. A racecar that makes a "safety" pit stop under full course yellow, shall be placed at the back of the field for the restart. If a racecar is already in the pits when a full course yellow condition is declared, that racecar's pit stop may be continued and may be applied to any mandatory pit stop requirements. Any such racecar may re-enter the track and rejoin the field when it can be safely accomplished.

All restarts from a full course yellow must be accomplished in single file order with the pace car, if available. When practical, the Competition Steward will direct the starter to signal a "one lap to restart" signal with a furlled white flag and a forefinger clearly displayed.

- **BLACK FLAG ALL** – Black Flag All (BFA) is signified by a standing black flag displayed at every staffed corner worker location. Passing rules are the same as for a standing yellow flag.

Cars may NOT begin their mandatory 5-minute pit stop under a BFA track condition. If a driver has already entered hot pit lane when the BFA condition is declared, that driver's pit stop may be continued and can be used to fulfill mandatory pit stop requirements. However, these cars may not exit their assigned pit until all other cars that were on track have reentered the track for the restart. Additionally, these cars will be dispatched back onto the track in the order in which they arrived in hot pit lane behind all cars that were still on track when the BFA was declared.

Except for racecars already in pit lane when the BFA condition is displayed, all racecars will enter, and remain in, pit lane in single file order unless otherwise specifically instructed by the Competition Steward in the driver's meeting. Wherever possible, the Competition Steward will tailor the grid scheme so that ALL cars cross the pit timing loop as part of the grid scheme. However, if that option is not feasible, then ALL cars will be gridded short of the pit timing loop. Prior to every race event, the Competition Steward, the Tech Steward and the T&S Steward will coordinate a grid scheme for this possibility and will clearly communicate that scheme to the pit lane and grid staff and the racers. Regardless of the gridding scheme, all cars must remain on the same side of the T&S loop prior to being dispatched back onto the track

The driver may remain in or exit the car as appropriate. No work of any kind or driver change or refueling can be performed on the car if it was not already in the pits prior to the BFA condition. The cars will be sent back onto the track in the order in which they entered the pit lane. Cars that were already in pit lane will be sent out at the end of the line.

The race clock does NOT stop.

Once course is again ready for competition, the Competition Steward will send the cars back onto the track behind a pace car, If available, under full course yellow for a single file restart. Any racecar in the grid-for-restart line that desires to enter the pits must take the green flag at restart prior to entering pit lane.

- **WHITE FLAG** – A White Flag is displayed as a standing flag and may be displayed at any staffed corner worker station including Start/Finish. It signifies that the car(s) being signaled will soon encounter a slow moving vehicle or vehicles on the track surface. This may be a disabled racecar or a support vehicle such as a tow truck. Passing is allowed but caution should be used particularly in any location where visibility of the track may be restricted. Typically the white flag is shown as a condition one flagging station immediately preceding the current location of the slow moving vehicle as an advance warning. Drivers should remain alert as it possible to have more than one such vehicle on the track at any given time.
- **RED FLAG** – Red Flag (RF) is signified by a waving red flag displayed at every staffed corner worker location. A RF signifies an EMERGENCY condition on the track. Passing rules are the same as for a standing yellow flag. Each car should gently and predictably slow to about 10 MPH, looking carefully for a dangerous on-track condition and for emergency vehicles that may be responding. The racecars should then drive, off line, to the nearest corner worker station and stop until the corner workers issue further instructions. The drivers should take particular care not to park their racecars in a location that might be a blind location to a following driver. Unless otherwise instructed, all drivers must remain in their racecars.

Cars may NOT begin or continue their mandatory 5-minute pit stop under a RF track condition. If a racecar has already entered hot pit lane when the RF condition is declared, no pit activity may begin and ALL pit stop activity already in progress must immediately cease (no service, no driver changes). Pit stop activity for racecars already in the pits can resume when the RF condition returns to full course yellow (i.e., the cars begin to return to the course for a restart). Racecars that were in the pits when the RF condition was declared may not exit their assigned pit until all other racecars that were on track have reentered the track for the restart. All racecars that were on the track when the RF was declared will be placed

back onto the track first, followed by racecars from hot pit lane in the order in which they arrived in hot pit lane.

Except for racecars already in pit lane when the RF condition is displayed, all racecars will enter, and remain in, pit lane in single file order unless otherwise specifically instructed by the Competition Steward in the driver's meeting. Wherever possible, the Competition Steward will tailor the grid scheme so that ALL cars cross the pit timing loop as part of the grid scheme. However, if that option is not feasible, then ALL cars will be gridded short of the pit timing loop. Prior to every race event, the Competition Steward, the Tech Steward and the T&S Steward will coordinate a grid scheme for this possibility. Regardless of the gridding scheme, all cars must remain on the same side of the T&S loop prior to being dispatched back onto the track.

While in the pits, the driver may remain in or exit the car unless instructed otherwise by the Competition Steward or his representative. No work of any kind or driver change or refueling can be performed on the car while waiting for return to the track. The cars will be sent back onto the track in the order in which they entered the pit lane. Cars that were already in pit lane will be sent out at the end of the line.

The race clock and any pit-stop clocks stop when the red flag condition is declared. The race clock and pit-stop clocks restart when the first car leaves the pits and retakes the track under FCY.

Once course is again ready for competition, the Competition Steward will send the cars back onto the track behind a pace car, when available, under full course yellow for a single file restart. Any racecar in the grid-for-restart line that desires to enter the pits must take the green flag at restart prior to entering pit lane.

## **Rules in the event of a shortened race:**

- If a race is prematurely ended under Black Flag All or Red Flag track conditions, no penalty or time assessment shall be assigned to those cars which were in the pits when the track condition was declared. Similarly, those racecars that had not yet pitted prior to the track condition being declared shall not be assigned a penalty or time assessment. Racers are reminded that the decision when to pit is theirs. Any advantage or disadvantage associated with that decision is borne strictly by the racer. Timing and Scoring will consider the order of entry of on-track racecars into pit lane as to be that of the running order for the last scored lap, subject to adjustment for any improper passes executed under the BFA or RF condition.

# INDEX

13/13 rule	3	Injectors	24
Airbags	12	Interior	20, 25, 26, 28
Brakes	19, 25, 28	Modified classes	10, 11, 17, 29
Bulkhead	12	Oil lines	12
Calipers	25	Philosophy	3
Camshaft	23	Prepared classes	9, 15, 23
Catch tank	12	Protests	31
CRAC	32, 34, 35	Refueling	48
Clutch	20, 25, 28	Rotors	25
Coolant	13	Rules changes	33, 34, 35
Data acquisition	22	Seat	11
Decals	5	Steering wheels	12, 20
Differential	20, 25, 28	Stock classes	14, 16
Electrical cut-off switch	12	Super Modified class	10
Engine	5, 13, 16, 17, 23, 24, 27	Suspension	18, 24, 25, 27
Exhaust	16, 24	Tech Inspection	8
Flywheel	20, 25, 28	Tires	19, 25, 27
Fuel	21, 22, 29	Transmission	20, 24, 25, 28
Fuel cells	21, 29	Wheels	12, 19, 25, 27