



# IMF (Inspection and Modifications Form)

*2009 BMWCCA Boston Chapter Autocross Series*

*Participant Name* \_\_\_\_\_

*Model Base Pts* \_\_\_\_\_ *BMW Model/Yr.* \_\_\_\_\_ *Sport Susp: Y / N*

## Engine

- Non-stock fuel injection components [add 3 points]
- Eta motor camshaft plus chip upgrade (eta engine only) [add 10 points]
- Camshaft upgrade [add 6 points]
- Pistons - high compression over 9.5:1 [add 7 points]
- Lightweight flywheel [add 5 points]
- Underdrive pulley for crank/fan belt [add 3 points]
- Supercharger pulley [add 5 points w/o LS diff, add 10 pts with LS diff]
- Tube exhaust headers [add 2 point]
- Removed catalytic convertor [add 3 points, '95 M3 – 5 pts]
- Cat back exhaust replacement [add 1 point]
- Valves, larger than stock [add 1 point]
- Aftermarket Turbocharger [add 15 points]
- Aftermarket Supercharger [add 15 points]
- Water injection [add 2 points]
- Porting & Polishing [add 2 points]
- E30 M3 Exhaust cam gear upgrade [add 3 points]
- Non-Stock Air Filter Housing [add 3 points]
- Non-Stock High Air Flow Meter (HFM) [add 3 points]
- Non-Stock intake manifold swap [add 2 points]
- I have a computer chip or software upgrade
  - ETA Motor [add 12 points]
  - 1995 and Before (non-ETA) [add 7 points]
  - 1996 to Current (non Stock Turbo) [add 3 points]
  - Stock Turbo BMW or Mini [add 15 points]

Increased displacement or non stock engine points (see autocross points committee for points assignment)

## Suspension and Brakes

- Front Sway bar (added, larger than stock, or adjustable) [add 2 points]

- Rear Sway bar (added, larger than stock, or adjustable) [add 2 points]
- Springs, cut or non-stock, set of 4 or less [add 4 – 2 if sport susp.]
- Coilovers, cut or non-stock, set of 4 or less [add 8 points], if selected, do not select shock & springs
- Shocks, non-stock, set of 4 or less [add 2 point – 1 if sport susp.]
- Front Stress bar [add 1 point]
- Rear Stress bar [add 1 point]
- Rear subframe, relocated or adjustable (camber) [add 2 points]
- Increased caster [add 2 points]
- Quick ratio steering [add 2 points]
- Brake system improvements (e.g. larger rotors, drum to disk) [add 4 points]
- X-brace for E36 (except convertibles) [add 2 points]

Increased negative front camber points (3 points per 0.5 degree increase)

## Driveline

<input type="checkbox"/>	I do not have a limited slip differential in my non-M car
<input type="checkbox"/>	I have a limited slip differential in my non-M car
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Stock Limited slip differential (non-M car) [8 points]</li> </ul>
<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Custom aftermarket limited slip differential (non-M car) [add 10 points]</li> </ul>
<input type="checkbox"/>	Non-stock limited slip differential in my M car [+2 points]
<input type="checkbox"/>	Factory Turbo or Factory Supercharged limited slip differential [add 13 points]
<input type="checkbox"/>	Non-Stock differential gear ratio [add 5 points]

## Wheels and Tires

The points to be assessed by a *tire width change* are computed by subtracting the increase in width in mm divided by 10 to get the number of cm increase. The points are calculated by the cm difference times a multiplier. The multiplier is 2.0, 2.5, or 3.0 depending on the upgraded tire's aspect ratio.

**width multiplier new tire aspect ratio**

2.0	80 - 70
2.5	65 - 55
3.0	50 - 30

points = ( [new width mm – stock width for each axle] / 10 ) \* (width multiplier)

*If you are just increasing the width of the front or the rear tires, enter half the points from the formula.*

Tire width change points

points = (new width in inches – stock width for each axle) \* 2

*If you are just increasing the width of the front or the rear wheels, enter half the points from the formula.*

Wheel width change points

A decrease in *tire diameter* influences the weight-to-thrust ratio. Tires that are smaller in diameter can result in an acceleration advantage. The *tire diameter change* points are computed by multiplying the tire diameter decrease (in inches) by 4. Therefore, there is one point assessed for each quarter inch decrease in the tire diameter.

Tire diameter change points

*R compound tires* are soft tread compounds are defined by the tire's tread wear rating of less than 140. These tires are also referred to as *racing* tires. Harder compound tires are referred to as *street* tires. The tires that you run are a major factor in determining your car's class. **Note: The Autocross Committee does not allow the use of rain duty specific R compound tires in the AR class. Use of rain R compound tires is only permitted in the M (modified) class.**

R (racing) compound tires

### Chassis and Bodywork

- Battery moved to trunk [add 1 point]
- Relocated motor mounts [add 1 point]
- Sport or racing seats [add 5 point]

Extensive lightning such as fiberglass body parts, removed seats, and so on (see autocross committee for points assignment)

---

\_\_\_\_\_ Total Points

R-Compound Tires: Y / N

\_\_\_\_\_ Class

Signed: \_\_\_\_\_ Driver

Date: \_\_\_\_\_

Signed: \_\_\_\_\_ Tech Inspector

Date: \_\_\_\_\_

---