12. AUTOMOBILE DEFINITIONS

The following definitions shall apply to these Rules regardless of any other definitions or interpretations.

12.1 AUTOMOBILE (CAR)

An automobile or car is a self-propelled land vehicle, running on at least four wheels, not in a line, which must be in contact with the ground when at rest.

12.2 SEDAN

A sedan is a car capable of transporting four or more average-size adults in normal seating positions.

12.3 MODEL

A group of cars of a given make which have virtually identical bodies and chassis but are readily distinguished from other models of the same make by virtue of a major difference in body appearance and/or chassis design. The names by which the manufacturer designates these groups have no bearing on this definition even though two groups may be designated identically.

12.4 STANDARD PART

An item of standard or optional equipment that could have been ordered with the car, installed on the factory production line, and delivered through a dealer in the United States. Port-installed options provided by the factory are considered to be the same as those installed on the factory production line. Dealer-installed options or deletions (except as

required by factory directives), no matter how common or what their origin, are not included in this definition. This definition does not allow the updating or backdating of parts.

12.5 TRACK

The distance between the centerlines of the wheels as competed without driver, measured as follows: From centerline to centerline of wheels. Alternatively, it may be measured from the inside of one wheel at the hub centerline height to the outside of the other wheel, then conversely from the outside of the first wheel at hub centerline to the inside of the second wheel. The two dimensions obtained are to be added together and divided by two to obtain the average. Measurements are to be taken at both front and rear of the wheels and averaged to compensate for toe in/out. Wheel rim width shall be measured at the base of the bead seat.

12.6 OPEN AND CLOSED CARS

A. An open car is a convertible (with or without a full windshield), a car with a retractable hardtop, a targa-top-type car with less than a full windshield, or a T-top-type car with less than a full windshield.

B. A closed car is one with a full roof, a targa top-type car with a full windshield, a T-top-type car with a full windshield, *or a convertible with a full windshield and a standard (as defined herein) hardtop which has been bolted securely in place*.

12.7 FLOOR PAN

The floor pan is defined to include all surfaces which would support the driver's or passenger's feet, body, or seat in the original car, extending laterally from (but not including) door sill to door sill and longitudinally from (but not including) front bulkhead to rear bulkhead.

12.8 DRIVER/PASSENGER COMPARTMENT

The driver/passenger compartment is the interior area of the car in which original driver control devices and all original seating were/are located.

12.9 WING AREA COMPUTATION

The area of a wing element shall be computed by multiplying the maximum chord (straight line distance from leading edge to trailing edge) by the maximum span (width). Curvature of the element (camber) and angle of attack when mounted on the vehicle will not affect the area measurement. The area for multiple-element wings will be the sum of the individual areas of each of the elements.

12.10 CANARD

A three-dimensional attachment to the front fascia with air passing over the top and bottom surfaces, which is intended to provide aerodynamic downforce to the front of the vehicle. Unlike a wing, one edge must be

flush to the attachment surface. No portion of a canard may extend vertically above the front fascia/bodywork.

12.11 ACTIVE/REACTIVE SUSPENSION

An active/reactive suspension is a system in which the weight of the car is carried or assisted by an actively adjustable/programmable medium such as a hydraulic or pneumatic ram.

12.12 TRACTION/STABILITY CONTROL

A system that adjusts engine power, braking force, or torque distribution when wheelspin, understeer, or oversteer is detected or predicted. Conventional limited slip differentials (e.g. viscous, passive clutch, helical/worm gear, locker) are explicitly excluded, but “active” differentials and their controllers are included.

12.13 MID-ENGINE

A mid-engine configuration is defined as one in which the engine is located behind the passenger compartment and in front of the rear axle.

12.14 BLOW-OFF VALVE (BOV) / POP-OFF VALVE (POV)

A device intended to limit maximum boost pressure in the engine inlet system by opening to vent the inlet system to the outside atmosphere when a preset boost value is reached.

12.15 COMPRESSOR BYPASS VALVE (CBV)

A device intended to allow a supercharger or turbocharger’s compressor output to recirculate back to the supercharger or turbocharger inlet when the throttle plate is closed. The purpose of this recirculation is to reduce boost lag when the throttle plate is reopened. A CBV is referenced to intake manifold vacuum and opens when manifold vacuum exceeds a preset value. It is closed under boost. CBVs installed by OEMs operate as described above. Some aftermarket CBVs vent to the atmosphere, and are marketed as Blow Off Valves or Pop Off Valves, although their operation is otherwise identical to the OEM CBVs.

12.16 SOLID REAR AXLE

A dependent rear suspension system in which the wheels are mounted at each end of a solid, or undivided, axle or axle housing; includes live axles and beam axles as found on both RWD and FWD cars.

12.17 VARIABLE VALVE TIMING (VVT)

VVT is any system that dynamically alters the timing of valve events while engine is operating.

12.18 STRUT BAR

A transverse member connecting the upper or lower suspension mounting points at the front or rear of the car. Strut bars may be mounted only transversely across the car from upper left to upper right suspension mounting point and from lower left to lower right suspension mounting

point. A two-point strut bar fastens only at the left and right suspension pointing points. A triangulated strut bar has a third area of attachment at the chassis (e.g., at the firewall/bulkhead). All connections to the vehicle must be bolted. No connection point to the chassis can be welded.

13. STOCK CATEGORY

Cars running in Stock Category must have been series produced with normal road touring equipment capable of being licensed for normal road use in the United States, and normally sold and delivered through the manufacturer's retail sales outlets in the United States. Car models not specifically listed in any Stock Category class must have been produced, and must meet the above requirements and been sold through normal U.S. dealerships, in quantities of at least 1,000 in a 12-month period in order to be eligible for the Stock Category. A Canadian-market vehicle is eligible for Stock category if it is identical to the US-market counterpart except for comfort and convenience modifications as allowed per 13.2.A.

A car will remain eligible for Divisional, National Tour, and National Championship events through the end of the 30th calendar year after the manufacturer-designated model year of the car. This eligibility limitation applies only to the Stock classes.

Except for modifications authorized below, Stock Category cars must be run as specified by the factory with only standard equipment as defined by these Rules. This requirement refers not just to individual parts, but to combinations thereof which would have been ordered together on a specific car. Any other modifications or equipment will place the car in Street Touring, Street Prepared, Street Modified, Prepared or Modified Categories as appropriate. Configurations involving damaged parts (e.g., blown fuses) are not typically authorized by the manufacturer and hence are not allowed.

Option package conversions may be performed between specific vehicles of a particular make and model, but only between configurations from within a particular model year. Such conversions must be totally complete and the resultant car must meet all requirements of this Section. These requirements are not met by simply pulling a fuse to disable a feature which distinguishes one model from another.

Alternate parts listed in a factory parts manual are not authorized unless their use is specifically referenced in the factory service manual or in a service bulletin for the specific model.

See Sections 3.8 and 8.3.1 for documentation requirements.

Alternate components which are normally expendable and considered replacement parts (e.g., engine and wheel bearings, seals, gaskets, filters, belts, bolts, bulbs, batteries, brake rotors, clutch discs, pressure plates, suspension bushings, drivetrain mounts, *fenders, trim pieces,* etc.) may be used provided they are essentially identical to the standard parts (e.g. have the same type, size, hardness, weight, material etc.), are used in the same location, and provide no performance benefit. The allowance for use of such replacements does not include camshafts, differential covers, or ring-and-pinion sets, nor does it authorize the use of piston rings having different configurations (e.g. "Total Seal") from those of the original.

Hardware items (nuts, bolts, etc.) may be replaced by similar items of unrestricted origin. Safety wire, threadlocker compounds, and locking nuts are permitted. These allowances are strictly to allow components to be replaced from alternate sources other than the original manufacturer. They should not be construed as an allowance to replace components with those which could be considered a ”higher performance” alternative. Parts available as replacements through the dealers parts department, the factory, or any other source which do not meet standard part specifications (e.g., hardness, size, etc.) are not legal in Stock Category, except as specifically provided elsewhere in these rules.

Cars listed as eligible in and prepared to the current national Showroom Stock Club Racing rules are permitted to compete in their respective Solo Stock Classes. This does not include Showroom Stock cars with installations of post-factory “performance packages” otherwise known as “trunk kits.” Neither Showroom Stock nor Solo Stock cars are permitted to interchange preparation rules. Showroom Stock cars may use tires which are eligible under current SS rules, even if they are not eligible in Stock.

Specific vehicle classifications are located in Appendix A of these rules.

13.1 AUTHORIZED MODIFICATIONS

If a modification is not specifically authorized in this or previous sections of these Rules, it is not allowed.

The addition of small holes for attachment hardware for authorized modifications is implicit (e.g., holes for fasteners to mount additional gauges, holes for brackets to mount shock absorber remote reservoirs, etc.). However, these holes may serve no other purpose.

All repairs must comply with factory-authorized methods and procedures.

It is not permitted to use illegal parts even if they have been set to Stock specifications.

Refer to Appendix F for past clarifications of these rules.

13.2 BODYWORK

A. Accessories, gauges, indicators, lights and other appearance, comfort and convenience modifications which have no effect on performance and/or handling and do not materially reduce the weight of the car are permitted. This does not allow driver’s seat substitutions, or the removal of “tow hooks”, a.k.a. “tie-down loops”. Delayed shutdown devices such as the “Turbo Timer”, which perform no function while the car is in motion, are permitted. This does permit the installation of an additional mirror (e.g. a “Wink”), but does not allow the removal of the original mirror. “Grounding kits” specifically designed to support sound systems are permitted but may serve no other purpose.

B. Data acquisition systems (including video cameras) and the accompanying sensors are allowed but may serve no other purpose during the run than real-time display and data recording.

C. Hood straps or fasteners may be added.

D. Any fuel tank cap may be used.

E. Windshields may be folded (but not removed) provided the required mechanism is standard equipment.

F. Alternate steering wheels are allowed, provided the outside diameter is not changed by more than one inch from the standard size. Steering wheels with an integral airbag may not be changed.

G. Alternate shift knobs are allowed.

H. Spare tires, tools and jacks may be removed. Any fastening hardware and/or other pieces that can no longer be firmly secured in the absence of the spare tire may be removed if necessary to ensure compliance with 3.3.3.B.1.

I. Roll bars and roll cages may be added (See Appendix C). This allowance does not permit the removal of standard roll hoops. It is strongly recommended that roll cages be constructed according to the GCR, though they must be bolted (not welded) into the automobile and be contained within the driver/passenger compartment. Roll bars may be welded in. A roll cage has more than four attachment points to the body or frame, or has bracing both fore and aft of the main hoop.

J. Driver restraints as outlined in Section 3.3.1 are allowed. Seats may not be cut to allow for the installation of alternate seat belts or harnesses. Passive restraint systems may not be removed. A horizontal "harness bar" may be used as part of the installation hardware for allowed driver restraints provided it has no more than two attachment points *to the chassis* and is bolted at those locations. A 'C'-type harness bar may also be used. It may have four bolted attachment points *to the chassis* (two primary, and two supporting connections to resist rotation). *Truss-type harness bars are not allowed.*

K. Cars may add one rear trailer hitch. The resulting weight addition is allowed. The hitch may serve no other purpose. Factory tie downs and cosmetic pieces (e.g. diffusers) may be modified or removed to facilitate hitch installation. Complete or partial removal of the hitch is allowed for competition, provided it does not result in a reduction in weight compared to the unmodified standard configuration.

L. Tow bar brackets may be installed but may serve no other purpose.

M. Any item that cannot be held permanently in place by factory-installed fasteners may be removed.

13.3 TIRES

Any tire which is OE on a car eligible for Stock Category may be used. Non-OE tires must meet the following requirements to be eligible for use in Stock category:

A. The tire must not appear on the following list, which may be altered at any time by the SEB upon notification of membership.

No tire models are currently listed.

B. No tire models will be approved for competition during the rest of the year after April 30 of each calendar year. Each eligible tire model must meet all requirements of Section 13.3 by April 30, and must continue to meet them thereafter. A tire model will normally be determined by the designation in the Tire Guide.

However, any of the following changes or similar changes (as determined by the SEB) will also be considered to represent a new model for eligibility purposes, even if the designation does not change: change of tread pattern at either full or partial tread depth; characterization by the manufacturer or distributor of a tire as "new" after April 30.

A tire model which was previously allowed by these rules continues to be legal until specifically disallowed. This follows years of precedence on eligibility for discontinued tire models.

If a manufacturer reintroduces a tire model which was previously discontinued, that tire will be considered a new model. Therefore, it will have to meet the rules specified in Section 13.3 including the April 30 introduction date.

C. The model of tire must be listed in a current or previous two years of the "Tire Guide" and "Tread Design Guide" or otherwise be approved by the SEB. The tire model must have Department of Transportation (DOT) approval.

D. Within each tire model, the sizes which are available must be equally available to all competitors. Tire model variations differing from standard specification, delivered only on a limited basis, or only to selected competitors, may not be used.

E. No *non-DOT* racing tire or recap (on any casing) may be used. Siping or re-grooving of tires is not permitted.

F. Each tire model must be sold in at least four rim diameters with a total of at least six sizes.

G. Tire must fit the allowable wheels and fender wells without modification.

H. Each tire must have non-zero measurable tread depth (i.e., points where it is possible to obtain positive measurement values) as described in Section 3.3.3.B. Tires may not have cord visible at any time during competition.

13.4 WHEELS

Any type wheel may be used provided it complies with the following: it is the same width and diameter as standard, and as installed (including wheel spacers if applicable) it does not have an offset more than

+/- 0.25 inch from a standard wheel for the car. The resultant change in track dimensions is allowed.

Wheel spacers are permitted, provided the resultant combination complies with the offset requirements of this section. Wheel studs, lug nuts, and/or bolt length may be changed.

Vehicles equipped with rims having metric specifications may use alternate rims as determined by using the following procedure:

Diameter: converting the metric measurement to inches and using the nearest smaller inch diameter rim.

Width: converting the metric measurement to inches and using the nearest smaller 1/2-inch width rim. Offset and track must still comply with the requirements of this section.

13.5 SHOCK ABSORBERS

A. The make of shock absorbers, struts, and strut housings may be substituted providing that the number, type (e.g., tube, lever, etc.), system of attachment and attachment points are not altered, except as noted below. The interchange of gas and hydraulic shocks absorbers is permitted. The following restrictions apply:

1. No more than two separate external shock damping adjustment controls are allowed. This permits the use of shocks which originally came with more than two external adjustments, which have been converted to double-adjustables, only if the additional adjustment controls have been permanently disabled (e.g. via welding, epoxying, grinding off). Gas pressure adjustment is not considered a damping adjustment.
2. Suspension geometry and alignment capability, not including ride height, may not be altered by the substitution of alternate shock absorbers. Aftermarket strut housings are allowed provided that they meet the Stock category shock requirements defined herein, i.e. that no suspension geometry changes result. This includes the position of the steering arm attachment point in the case of struts with integrated steering arms.
3. Adjustable spring perches are allowed, but the spring loadbearing surface must be in the same location relative to the shock mounting points as on the standard part. Shims may be used to achieve compliance.
4. The fully extended length must be within plus or minus one inch of the dimension of the standard part.
5. Electronically controlled shocks may not be used on vehicles not originally equipped with such units. Vehicles originally equipped with electronically controlled shocks may use the standard parts or non-electronically controlled alternative shocks subject to all the requirements of 13.5. Non-standard electronically-controlled shocks are not allowed.

B. The mounting hardware shall be of the original type. The use of any shock absorber bushing material, including metal, is permitted. Pressed or bonded bushings may be removed from standard parts to facilitate the use of alternate bushings which fit in the original location without alterations to the part. This does not permit the use of an offset shock bushing. A shock absorber bushing may be implemented as a spherical bearing. The bushing attaching the end of a strut to the body or frame on a strut type suspension is a suspension bushing, not a shock bushing.

   For cars with a bayonet/shaft-type upper shock mount, this allowance permits the removal of the shock bushing from the upper mounting plate (e.g. via drilling, cutting, burning out the bushing) and replacing it with another bushing. This also includes shock bushings located in control arms, etc. This does not allow other modifications to the plate itself or use of an alternate plate.

C. To facilitate the installation of commonly available aftermarket shock absorbers, struts, or strut inserts whose shaft size is larger than the center hole of an upper shock mount assembly, that hole may be enlarged by the minimum necessary to accommodate the shock shaft size, provided the following restrictions are met:

   (1) the enlarged hole must remain concentric with the original configuration;

   (2) the enlargement of the hole does not require modification of a bearing (as opposed to a washer, sleeve, or plate);

   (3) neither the hole enlargement nor the location of the shock shaft changes any alignment parameter. Provided these constraints are met, this permits enlarging of the center hole in an upper shock mount with an integrated rubber bushing, where the bushing is integral to the mount and bonded to the plate and the mount is provided by the OEM as an assembly. This includes drilling out and/or removal of the metal sleeve.

D. A suspension bump stop is considered to be performing the function of a spring. Therefore, the compressed length of the shock at the initial point of contact with the bump stop may not be increased from the standard part, although the bump stop may be shortened for the purpose of installing non-standard shocks. Bump stops installed externally and concentric with the shaft of a shock may be drilled out to fit a larger diameter shock shaft. Bump stops may be substituted for the purposes of installing non-standard shocks.

E. A hole may be added through the bodywork to route the reservoir and hose to a remote mounting location. Such holes may serve no other purpose.

F. A hole may be added to an interior body panel to provide access to the adjustment mechanism on an allowed adjustable shock absorber. The hole may serve no other purpose, and may not be added through either the exterior bodywork or a strut bar. Interior panels

are defined to be those pieces which cover the interior of the vehicle (including the trunk area) and are accessible from inside the vehicle. They do not include structural panels, such as wheel wells or inner fenders, which may also be accessible from inside the car but which actually form part of the body of the vehicle.

13.6 BRAKES

A. The make and material of brake linings may be changed.

B. Substitution of clutch and brake hydraulic lines with solid metal or braided metal is allowed on all cars manufactured before model year 1992.

C. Alternate brake bleeder fittings, such as “Speedbleeders,” are permitted. They may serve no other purpose.

13.7 ANTI-ROLL (SWAY) BARS

A. For front anti-roll bars:

1. Substitution, addition, or removal of any front anti-roll bar(s) and supporting hardware (brackets, endlinks, bushings, etc.) is permitted.
2. Substitution, addition, or removal of anti-roll bars may serve no other purpose than that of an anti-roll bar.
3. The use of any bushing material is permitted. *A bushing may be implemented as a bearing.*
4. No modification to the body, frame, or other components to accommodate anti-roll bar addition or substitution is allowed except for the drilling of holes for mounting bolts. Non-standard lateral members which connect between the brackets for the bar are not permitted.

B. Rear anti-roll bars may not be removed, replaced, or modified in any way.

13.8 SUSPENSION

A. Standard, as defined herein, suspension springs must be used. They may not be cut, shortened, or collapsed. Cars with swing axle suspension may be lowered sufficiently to achieve no more than two degrees of negative camber at rest and may use a camber compensator. Spring perches may not vary from the OE shape within the working part of the perch.

B. Both the front and rear suspension may be adjusted through their designed range of adjustment by use of factory adjustment arrangements or by taking advantage of inherent manufacturing tolerances. This encompasses both alignment and ride height parameters if such adjustments are provided by the stock components and specified by the factory as normal methods of adjustment. However, no suspension part may be modified for the purpose of adjustment unless such modification is specifically authorized by the factory shop manual for non-competition purposes.

C. Suspension bushings, including but not limited to those which carry the weight of the vehicle and determine ride height, may not be replaced with bushings of a different material or dimension.

D. Replacement control arms for vehicles having integral bushing/arm assemblies must be standard factory parts as per Sections 12.4 and 13.0.

E. If authorized by the manufacturer, the use of shims, special bolts, removal of material to enlarge mounting holes, and similar methods are allowed and the resulting alignment settings are permitted even if outside the normal specification or range of specifications recommended by the manufacturer. If enlarging mounting holes is specifically authorized but no material removal limits are specified, material removal is restricted to the amount necessary to achieve the maximum factory alignment specification.

13.9 ELECTRICAL SYSTEM

A. The make of spark plugs, points, ignition coil and high tension wires is unrestricted including spark plug wires having an in-line capacitor. (Modification of the distributor cap for the purpose of installing allowed non-standard components is not permitted.)

B. On cars made prior to January 1, 1968, any ignition system using a standard distributor without modification may be used.

C. Ignition settings may not be adjusted outside factory specifications.

D. No changes are permitted to electronic engine management systems or their programming.

E. Additional battery hold-down hardware may be added to supplement the standard equipment in order to meet 3.3.3.B.15. It may serve no other purpose.

13.10 ENGINE AND DRIVE TRAIN

A. The engine air filter element may be removed or replaced *provided the air flow path remains as originally designed (i.e., no additional openings).* No other components of the air induction system may be removed, replaced, or modified.

B. Engines may be rebored to the manufacturer's first standard overbore, not to exceed 0.020". Sleeving is allowed to repair to the standard bore. Only OE-type standard or first overbore pistons of the same configuration and of the same or greater weights are permitted. No interchange between cast and forged pistons is allowed.

C. Rotating and reciprocating parts may not be balanced.

D. Port matching is not allowed.

E. Any part of the exhaust system beyond (downstream from) the header/manifold or catalytic converter, if so equipped, may be substituted or removed provided the system meets the requirements of 3.5 and 3.3.3.B.15. Stainless steel heat exchangers are permitted only if the physical dimensions and configuration remain unchanged.

Modifications of any type, including additions to or removal of, the catalytic converters, thermal reactors, or any other pollution control devices in the exhaust system are not allowed and the system must be operable. Replacement catalytic converters must be OE if the vehicle has not exceeded the warranty period as mandated by the EPA. Converters must be of the same type and size and used in the same location as the original equipment converter(s). This does not allow for a high performance unit. If the vehicle has exceeded the warranty period, replacement catalytic converters must be OE-type as per Section 13.0.

Exhaust hangers which are bolted or welded on the car are considered part of the body and may not be changed or removed.

F. Any oil filter may be added if not originally equipped. Canister-type oil filters may be replaced with a spin-on type filter using a minimum amount of hardware and connecting lines.

G. The installation of water expansion tanks is allowed. The installation of oil catch tanks is allowed provided the PCV system is not altered.

H. A scattershield may be added. This does not permit bell housing substitutions.

I. Thermostats may be added or substituted. A thermostat is a device which controls the passage of water.

J. Silicone replacement hoses are permitted as alternate components provided they meet the requirements of Section 13.0 with regard to size, shape, location, and performance equivalence. Replacement induction system air intake hoses must also match the standard part in stiffness, contour, and internal wall texture.

K. A device for locking out reverse gear may be used.

L. Limited-slip differential, transmission and differential ratios, clutch mechanisms and carburetion, fuel injection or supercharger induction systems must be standard as herein defined.

M. Any oil or grease, including synthetic, is permitted.

N. Valve seats and guides in older engines originally designed for leaded fuel may be only substituted with alternate components if the dimensions are the same as those of the standard components.

O. Electronic traction and/or stability control systems may be turned off or disabled, as long as this does not require connection to an external system, removal of any part, or the substitution or modification of any part.

14. STREET TOURING CATEGORY

The Street Touring category of vehicle modifications is meant to fit between the current Stock and Street Prepared categories. This category provides a natural competition outlet for auto enthusiasts using affordable sports cars and sedans equipped with common suspension, engine, and appearance modifications which are fully legal and compatible with street use anywhere in the country

Vehicle eligibility lists are now in Appendix A.

Under the provisions of Section 1.1 of these rules, Regions are free to allow any other version of the ST concept which meets their local needs. *In particular, some leeway in the area of bodywork allowances (e.g., wings/spoilers beyond those allowed in 14.2.F) is encouraged at Regional Solo events.*

See Sections 3.8 and 8.3 for documentation requirements.

14.1 AUTHORIZED MODIFICATIONS

All Solo Rules Stock Category allowances, plus all allowances contained in 14.1 through 14.10.

14.2 BODYWORK

A. Pedal kits and other interior cosmetic accessories may be added. “Dress-up” items such as chrome dipsticks and non-standard filler caps are permitted, provided they serve no other purpose.

B. The driver and front passenger seats may be replaced, with the following restrictions: The seating surface must be fully upholstered. The top of the seat, or an attached headrest, may not be below the center of the driver’s head. The seat, including mounting hardware, must weigh at least 25 pounds and must be attached using the OE body mounting holes/studs. Additional mounting points may be added.

C. Factory rub strips, emblems, mud flaps*, bolt-on front valance lips/ spoilers, and fog lights (except those integral to a headlight or turn signal)* may be removed. *Rear wings may be removed so long as the vehicle retains any federally-mandated third brake light.*

D. Alternate steering wheels are allowed except that steering wheels with an integral airbag may not be changed.

E. Fenders may not be cut or flared but the inside lip may be rolled to gain additional tire clearance. (The outer fender contour may not be changed.) Plastic and rubber wheel well splash shields may be modified for tire clearance and to accommodate a rolled inside fender lip. The modifications may serve no other purpose (e.g. air intake, brake ducts, etc). No other changes to the stock fenders or wheel wells are permitted.

F. *Addition of spoilers, splitters, rear wings, bumper covers, valances, side skirts, and non-functional sccops/vents is allowed provided that either:*

1. *It is a production part which is standard or optional equipment of a US model of the vehilcle*
2. *It is listed in the vehicle manufacturer's US accessory catalog for that vehicle for normal highway use.*

Parts must be installed as directed by the manufacturer. Exact replicas (including weight) from alternate sources are also permitted.

G. Strut bars *(per Section 12) are permitted* with all types of suspension, *subject to the following constraints:*

1. *a two-point strut bar may be added, removed, modified, or substituted, but only with another two-point strut bar.*
2. *A triangulated (3-point) strut bar may be removed, modified, or substituted; substitution may be with either a triangulated or a two-point strut bar. The connection to the chassis (i.e., firewall, bulkhead, etc) must be in the standard location.*
3. *Lower suspension braces must be attached to the lower suspension pickup point locations on the chassis within 2 inches (2", 50.8 mm) in any direction of the actual suspension attachment to the chassis.*
4. *Except for standard parts, no connections to other components are permitted.*

Additional holes may be drilled for mounting bolts. Only bolt-on attachment is permitted. Interior trim panels may be modified to allow installation of strut bars. Holes or slots may be no larger than necessary and may serve no other purpose. This does not permit any modifications to the frame or unibody beyond the allowed mounting holes.

H. Longitudinal (fore-aft) subframe connectors ("SFCs") are permitted with the following restrictions:

1. They must only connect previously unconnected boxed frame rails on unibody vehicles.
2. Each SFC must attach at no more than three points on the unibody (e.g. front, rear, and one point in between such as a seat mount brace or rocker box brace).
3. SFCs must be bolted in place and not welded.
4. No cutting of OE subframes or floorpan stampings is permitted. Drilling is permitted for mounting bolts only.
5. No cross-car/lateral/triangulated connections directly between the driver's side and passenger's side SFCs are permitted. Connections to OE components such as tunnel braces or closure panels via bolts are allowed and count as the third point of attachment. No alteration to the OE components is permitted.

6. SFCs may not be used to attach other components (including but not limited to torque arm front mounts or driveshaft loops) and may serve no other purpose.

14.3 TIRES

Tires must meet the eligibility requirements of the Stock category with the following additional restrictions:

A. Tires must be mass-produced standard production tires designed for normal highway use on passenger cars. Low volume and/or specialty tires will be specifically excluded below.

B. Tires may have section widths up to and including the following:

ST, STS, STR (AWD) – 225 mm

STX (AWD), STU (AWD) – 245 mm

STR (2WD) – 255 mm

STX (2WD) – 265 mm

STU (2WD) – 285 mm

C. Tires must have a minimum UTQG treadwear rating of 140 *and a minimum molded tread depth greater than 7/32" as manufactured*.

D. Tire models must not appear on the following list, which may be altered at any time by the SEB upon notification of the membership.

Pirelli P Zero Corsa

14.4 WHEELS

Any wheels are allowed with widths up to the following:

ST, STS, STR (AWD) – 7.5"

STX (AWD) – 8.0"

STX (2WD), STR (2WD) – 9.0"

STU – unlimited

14.5 SHOCK ABSORBERS

A. Shock absorber bump stops may be altered or removed.

B. Any shock absorbers may be used. Shock absorber mounting brackets which serve no other purpose may be altered, added, or replaced, provided that the attachment points on the body/ frame/subframe/ chassis/suspension member are not altered. This installation may incorporate an alternate upper spring perch/seat and/or mounting block (bearing mount). The system of attachment may be changed. The number of shock absorbers shall be the same as Stock. No shock absorber may be capable of adjustment while the car is in motion, unless fitted as original equipment. MacPherson strut equipped cars may substitute struts, and/or may use any insert. This does not allow unauthorized changes in suspension geometry or changes in attachment points (e.g., affecting the position of the lower ball joint or spindle). It is intended to allow the strut length changes needed to

accommodate permitted modifications which affect ride height and suspension travel.

14.6 BRAKES

A. Cross drilled and/or slotted brake rotors may be fitted (same size/type/material as standard) provided all such voids are within the disc area, and comprise no more than 10% of that area.

B. Brake lines may be substituted with alternate DOT approved flexible brake lines.

C. Air ducts may be fitted to the brakes, provided that they extend in a forward direction only, and that no changes are made in the body/structure for their use. They may serve no other purpose.

D. Original equipment ABS braking systems may be electrically disabled, but may not be removed or altered in any other way.

E: STX and STU: Non-standard brake rotors may be used provided they are of equal or larger dimensions (diameter and thickness) and made of ferrous material (e.g. iron). Thickness includes the individual plates of a vented rotor, as well as the overall dimension. *The diameter for replacement rotors is measured at the minimum outside dimension.* Aluminum rotor hats are allowed. Cars originally equipped with solid (non-vented) rotors may utilize vented rotors. Cross-drilled and/or slotted brake rotors may be fitted provided all such voids are within the disc area, and comprise no more than 10% of that area. Brake calipers and mounting brackets may be replaced provided they bolt to the standard locations and the number of pistons is equal to or greater than standard. A functioning emergency brake of the same type, operation, and actuation as OE must be present. Drum brakes may be replaced with disc brakes of a diameter equal to or greater than the inside diameter of the standard drum. Such conversions must be bolted, not welded, to the axle/trailing arm/upright, and must include an integral, redundant emergency brake. Changes to backing plates/dust shields/brake lines to accommodate these changes are permitted but may serve no other purpose.

14.7 ANTI-ROLL (SWAY) BARS

Substitution, addition, or removal of any anti-roll bar(s) is permitted. Bushing material, method of attachment, and locating points are unrestricted. *This does not authorize the cutting of holes to route the bar(s) or links.* Components such as anti-roll bars and strut housings that serve dual purposes by also functioning as suspension locators may not be modified in ways that change the suspension geometry or steering geometry. Non-standard lateral members which connect between the brackets for the bar, including allowed strut bars per 14.2.G, are permitted.

14.8 SUSPENSION

A. Ride height may only be altered by suspension adjustments, the use of spacing blocks, leaf spring shackles, torsion bar levers, or

change or modification of springs or coil spring perches. This does not allow the use of spacers that alter suspension geometry, such as those between the hub carrier and lower suspension arm. Springs must be of the same type as the original (coil, leaf, torsion bar, etc.) and except as noted herein, must use the original spring attachment points. This permits multiple springs, as long as they use the original mount locations. Coil spring perches originally attached to struts or shock absorber bodies may be changed or altered, and their position may be adjustable. Spacers are allowed above or below the spring. Suspension bump stops may be altered or removed.

B. Suspension bushings may be replaced with bushings of any materials (except metal) as long as they fit in the original location. Offset bushings may be used. In a replacement bushing the amount of metal relative to the amount of nonmetallic material may not be increased. This does not authorize a change in type of bushing (for example ball and socket replacing a cylindrical bushing), or use of a bushing with an angled hole whose direction differs from that of the original bushing. If the Stock bushing accommodated multi-axis motion via compliance of the component material(s), the replacement bushing may not be changed to accommodate such motion via a change in bushing type, for example to a spherical bearing or similar component involving internal moving parts. Pins or keys may be used to prevent the rotation of alternate bushings, but may serve no other purpose than that of retaining the bushing in the desired position.

C. The following allowances apply to strut-type suspensions: Adjustable camber plates may be installed at the top of the strut and the original upper mounting holes may be slotted. The drilling of holes in order to perform the installation is permitted. The center clearance hole may not be modified. Any type of bearing or bushing may be used in the adjustable camber plate attachment to the strut. The installation may incorporate an alternate upper spring perch/seat and/or mounting block (bearing mount). Any ride height change resulting from installation of camber plates is allowed. Caster changes resulting from the use of camber plates are permitted.

D. Differential mount bushings may be replaced, but must attach in the factory location(s) without additional modification or changes. Differential position may not be changed. The amount of metal in a replacement bushing may not be increased relative to the amount of metal found in a standard bushing for the particular application. Solid metal bushings are specifically prohibited.

E. Transmission mounts may be replaced, but must attach in the factory location(s) without additional modification or changes. Transmission position may not be changed. The amount of metal in a replacement mount may not be increased relative to the amount of metal found in a standard mount for the particular application. Solid metal mounts are specifically prohibited.

F. Steering rack bushings may be replaced, but must attach in the factory location(s) without additional modification or changes. Steering rack position may not be changed. The amount of metal in a replacement bushing may not be increased relative to the amount of metal found in a standard bushing for the particular application. Solid metal bushings are specifically prohibited. This does NOT allow shimming or otherwise relocating the steering rack.

G. Camber bolts may be installed providing these parts use the original, unmodified mounting points and meet the restrictions specified in 14.5.B. Caster changes resulting from the use of camber bolts are permitted.

H. Solid axle suspension allowances:

1. Addition or replacement of suspension stabilizers (linkage connecting the axle housing or DeDion to the chassis, which controls lateral suspension location) is permitted.
2. Traction bars or torque arms may be added or replaced.
3. A Panhard rod may be added or replaced.
4. The upper arm(s) may be removed, replaced, or modified, and the upper pickup points on the rear axle housing may be relocated.
5. The lower arms may not be altered, except as permitted under 14.8.B, or relocated. Methods of attachment and attachment points are unrestricted, but may serve no other purpose (e.g. chassis stiffening). This does not authorize removal of a welded-on part of a subframe to accommodate the installation.

I. Camber kits, also known as camber compensators, may be installed. These kits consist of either adjustable length arms or arm mounts *(including ball joints)* that provide a lateral adjustment to the effective length of a control arm. Alignment outside the factory specifications is allowed. The following restrictions apply:

1. On double/unequal arm (e.g. wishbone, multi-link) suspensions, only the upper arms OR lower arms may be modified or replaced, but not both. Non-integral longitudinal arms that primarily control fore/aft wheel movement (e.g. trailing arm(s) or link(s) of a multi-link suspension) may not be replaced, changed, or modified.
2. On arm-and-strut (MacPherson/Chapman) suspensions, the lower arms may be modified/replaced OR other methods of camber adjustment as allowed by paragraphs 14.8.B, C, or G may be used, but not both.
3. On swing or trailing arm suspensions, the main arms may not be modified or replaced, but lateral locating links/arms may be modified or replaced.
4. The replacement arms or mounts must attach to the original standard mounting points. All bushings must meet the requirements of 14.8.B. Intermediate mounting points (e.g. shock/spring mounts) may not be moved or relocated on the arm, except as incidental

to the camber adjustment. The knuckle/bearing housing/spindle assembly cannot be modified or replaced.

Note: Many modern suspension designs known by other names, actually function as double A-arm designs. These include the rear suspensions on 88+ Honda Civic/Integra, Neon, E36 BMW, and most “multi-link” and are covered by 14.8.I.1.

J. On strut-equipped cars, the strut’s lower integral mounting bracket, for attachment to the upright or spindle, is unrestricted provided it attaches to the stock location. Any resulting change to the position of the strut centerline is allowed. Such brackets shall serve no other purpose. This does not allow for changes to the integral steering arm on cars that have the steering arm integrated with the strut body.

K. Changes in alignment parameters that result directly from the use of the allowed components are permitted. For example, the dimensional changes resulting from the use of a cylindrical offset bushing that meets the restrictions of 14.8.B are allowed, including those resulting from a change in the pivoting action to:

(1) about the mounting bolt, or

(2) about the bushing itself.

L. Subframe mount bushings may be replaced, but must attach in the factory location(s) without additional modification or changes. Subframe position may not be changed. The amount of metal in a replacement bushing may not be increased relative to the amount of metal found in a standard bushing for the particular application. Solid metal bushings are specifically prohibited.

14.9 ELECTRICAL SYSTEM

A. The make, model number, and size of the battery may be changed but not its voltage. Relocation of the battery or batteries is permitted but not into the passenger compartment. If the battery is relocated and the original battery tray can be removed by simply unbolting it, the tray may be removed, or relocated with the battery. Holes may be drilled for mounting or passage of cables. Longer cables may be substituted to permit relocation. The number of battery or batteries may not be changed from stock. The area behind the rearmost seat is not considered to be within the passenger compartment. The area under the rearmost seat is considered to be within the passenger compartment.

B. The addition of electrical grounding cables and associated distribution blocks/terminals is permitted. Holes may be drilled for mounting only. This does not permit the use of electrical enhancement components such as condensers, voltage controllers, etc.

14.10 ENGINE AND DRIVETRAIN

Engine and transmission must remain unmodified, including emissions equipment, except as noted below. All emissions monitoring system hardware and software must be operationally functional as originally

intended by the manufacturer. Tampering with emissions system software and/or hardware to create or cloak non-compliance is not permitted. Some examples of emissions system tampering are O2 foolers, disabling or deactivating Check Engine Light (CEL) code indication, backdating ECU internals from OBD2 to OBD1, etc.

A. Internal baffling of oil pans may be added or modified. Addition or modification of windage trays, crankshaft scrapers, and oil pump pickups is not allowed.

B. Original equipment traction control systems may be electrically disabled, but not removed or altered in any other way.

C. The air intake system up to, but not including, the engine inlet may be modified or replaced. The engine inlet is the throttle body, carburetor, compressor inlet, or intake manifold, whichever comes first. The existing structure of the car may not be modified for the passage of ducting from the air cleaner to the engine inlet. Holes may be drilled for mounting. Emissions or engine management components in the air intake system, such as a PCV valve, or mass airflow sensor, may not be removed, modified, or replaced, and must retain their original function along the flow path.

D. Exhaust manifolds and headers (including downpipes) may be replaced with alternate units which are emissions-legal. Relocation of the oxygen sensor on the header is permitted. Alternate oxygen sensors, including heated types, are permitted. This allowance does not permit relocation of the catalytic converter (see 13.10.E). Exhaust heat shields which cover only (and attach solely to) the header/manifold/downpipe are considered part of that component and may be replaced, removed, or modified. All other exhaust heat shields may be modified the minimum amount necessary to accommodate allowed alternate exhaust components.

E. Catalytic Converters

ST, STS, STR – Catalytic converters may be replaced by aftermarket units. Replacements must:

1) Be certified for use in that vehicle application by the manufacturer or reconditioner,

2) Bear correct EPA-mandated labeling,

3) Be of the OE quantity and type (i.e. oxidation, three-way, etc.) and

4) Be used in the same location(s), relative to the chassis, as the OE converter(s). *If the volume of the replacement catalyst substrate/core is smaller than the original, the replacement must fit entirely within the extent of the original.*

This does allow for high performance replacements, provided they meet all restrictions herein.

STX, STU – Any high flow catalytic converter(s) are allowed, but must attach within six inches of the original unit. Multiple catalytic

converters may be replaced by a single unit. The inlet of the single replacement converter may be located no further downstream than 6” along the piping flow path from the original exit of the final OE converter.

F. The engine management system parameters and operation may be modified only via the methods listed below. Any and all modifications must meet or exceed the applicable EPA tailpipe emissions standards for the year, make, and model of the car. These allowances also apply to forced induction cars, except that no changes to standard boost levels, intercoolers, or boost controls are permitted. Boost changes indirectly resulting from allowed modifications are permissible, but directly altering or modifying the boost or turbo controls, either mechanically or electronically, is strictly prohibited.

1. Reprogrammed ECU (via hardware and/or software) may be used in the standard housing. Traction control parameters may not be altered. Altered engine controllers may not alter boost levels in forced induction engines. Alternate software maps which violate these restrictions may not be present during competition, regardless of activation.
2. Electronic components may be installed in-line between an engine’s sensors and ECU. These components may alter the signal coming from the sensor in order to affect the ECU’s operation of engine management system. Example: fuel controllers that modify the signal coming from an airflow sensor.
3. Fuel pressure regulators may be replaced in lieu of electronic alterations to the fuel system. It is not permitted to electronically modify the fuel system AND replace a fuel pressure regulator.
4. Ignition timing may be set at any point on factory adjustable distributor ignition systems.
5. VTEC controllers and other devices may be used which alter the timing of factory standard electronic variable valve timing systems.
6. All vehicles must comply with the EPA tailpipe emissions test requirements as a minimum.

G. Any mechanical shift linkage may be used.

H. Any accessory pulleys and belts of the same type (e.g., V-belt, serpentine) as standard may be used. This allowance applies to accessory pulleys only (e.g., alternator, water pump, power steering pump, and crankshaft drive pulleys). It does not allow replacement, modification, or substitution of pulleys, cogs, gears, or belts which are part of cam, layshaft, or ignition drive or timing systems, etc. Any crankshaft damper or pulley may be used. SFI-rated dampers are recommended. Supercharged cars may not change the effective diameter of any pulley which drives the supercharger.

I. Upper engine shields made of plastic material, the purpose of which is to hide mechanical components in the engine compartment, may be removed if they have a solely aesthetic and/or acoustic function.

J. Engine mounts may be replaced, but must attach in the factory location(s) without additional modification or changes. Engine position may not be changed. The volume of metal in a replacement mount may not be increased relative to the volume of metal found in a stock mount for the particular application. Solid metal mounts are specifically prohibited. Any non-metallic inserts may be used. All components between the engine and the mounting structure are considered to be part of the motor mount assembly and therefore comprise the motor mount.

Hydraulic shock type rear engine locators, or bobble struts may be replaced by manufacturer's performance part, or aftermarket replacement part. This part must retain factory dimensions and attachment points, including factory design. (Example: If factory locator/bobble strut is gas or hydraulic piston type, replacement part must be gas or hydraulic piston type. No solid mounts may be substituted.)

K. Limited Slip Differentials

ST, STS – No limited slip differentials are permitted except for factory standard viscous coupler type units.

STX, STU, STR – Only standard (as defined in Section 12.4) limited slip differentials (LSD) are allowed on AWD vehicles. For AWD vehicles that did not come with any type of limited slip differential (including center differential or transfer case), a single aftermarket LSD may be added. 2WD vehicles may use any LSD unit.

14.11 OUT OF PRODUCTION CARS

Where a car is out of production and the manufacturer is either out of business, stocks no parts or no longer has a required part, a part of any origin but as similar as possible to the original may be substituted. The entrant must be prepared to show documentary evidence that one of the three circumstances above applies and that the substituted part is as similar as possible under the circumstances. Substitute parts which provide improvements in performance (e.g. superior gearing, lighter weight, better camshaft profile, etc.) are not permitted under this allowance.

15. STREET PREPARED CATEGORY

Cars running in Street Prepared Category must have been series produced with normal road touring equipment, capable of being licensed for normal road use in the United States, and normally sold and delivered through the manufacturer's retail sales outlets in the United States. Cars not specifically listed in Stock or Street Prepared Category classes in Appendix A must have been produced in quantities of at least 1000 in a 12 month period to be eligible for Street Prepared Category.

A vehicle may compete in Street Prepared Category if the preparation of the vehicle has not exceeded the allowable modifications of Stock Category, except as specified below. However, the distinction between different years/models used in Stock Category does not apply in Street Prepared Category. Example: Porsche 911 models that are listed on the same line are considered the same.

Cars listed as eligible in and prepared to the current national Improved Touring rules are permitted to compete in their respective Street Prepared classes. Neither Street Prepared nor Improved Touring cars are permitted to interchange preparation rules. Improved Touring cars may use tires which are eligible under current IT rules even if they are not eligible in Street Prepared.

Cars listed as eligible in and prepared to the current American Sedan road race rules are permitted to compete in Class B Street Prepared. Neither Street Prepared nor American Sedan cars are permitted to interchange preparation rules. American Sedan cars may use tires which are eligible under current AS rules even if they are not eligible in Street Prepared.

Cars listed as eligible in and prepared to the current national Touring category rules are permitted to compete in their respective Street Prepared classes. Neither Street Prepared nor Touring cars are permitted to interchange preparation rules. Touring cars may use tires which are eligible under current Touring rules even if they are not eligible in Street Prepared.

Cars listed as eligible in and prepared to the current national Street Touring (ST) class rules are permitted to compete in their respective Street Prepared classes, with the additional allowance that they may use any tire which meets the requirements of 15.3 and fits on the ST-legal wheels and within the ST-legal bodywork.

Cars eligible for the current Spec Miata rules are permitted to compete in class D Street Prepared, with the additional allowance that they may use any size of any tire which meets the requirements of 15.3 and fits on the Spec Miata allowed wheels and within the allowed bodywork. Spec Miata cars in DSP may not intermix use of the Spec Miata and Street Prepared allowances. The competitor is responsible for being in possession of the Spec Miata rules and for proving that his/her car conforms to the rules.

While the rules of the Street Prepared Category have remained essentially the same, the laws governing various aspects of street-driven vehicles have changed over time. The original concept of this category as made up predominantly of street-driven vehicles has been rendered inappropriate. The SCCA does not encourage or condone the breaking of laws governing pollution control systems or the alteration of street-driven vehicles contrary to state and federal laws regarding their use. It continues to be the responsibility of the individual to comply with such state and federal laws.

See Sections 3.8 and 8.3 for documentation requirements.

Specific vehicle classifications are located in Appendix A of these rules.

15.1 AUTHORIZED MODIFICATIONS

A. All Allowable modifications permitted in Stock Category are allowed.

B. Street Prepared vehicles may only be modified in excess of Stock Category rules in the following ways. Any modification not specifically authorized by the Stock Category or Street Prepared rules is prohibited. No unauthorized modifications are permitted in order to accommodate authorized modifications (e.g., non-stock hood scoops or holes necessary for carburetor clearance). Structural modifications, such as the addition of members known as “jacking rails”, are not permitted unless specifically authorized herein.

C. Equipment and/or specifications may be exchanged between different years and models of a vehicle if:

(a) the item is standard on the year/model from which it was taken, and

(b) the years/models are listed on the same line of Appendix A (Street Prepared Classes).

The updated/backdated part or the part to which it is to be attached may not be altered, modified, machined, *welded,* or otherwise changed to facilitate the updating/backdating allowance. Standard factory installation methods, locations, and configurations are allowed. The updating and/or backdating of engines, transmissions, transaxles, and/or unibodies must be done as a unit; component parts *and specifications* of these units may not be interchanged. Cars not listed in the Street Prepared sections of Appendix A may not be updated/backdated until approved by the SEB and published in the official SCCA publication.

D. Alternate computer control modules may be used whenever an equivalent change to the conventional system is allowed. For example, alternate computer module control of ignition settings or fuel injection is allowed.

E. Air conditioning systems may be removed in whole or in part. This rule should not be interpreted to allow modification of the heater system.

F. On all forms of suspension, camber/caster adjustment within factory specifications may be achieved by the use of shims or eccentric bushings. The intent of this allowance is to permit cars to be restored to within factory-allowed specification ranges, not to provide an additional method beyond those permitted in Section 15.8 to obtain alignment settings beyond the factory specifications.

Refer to Appendix F for past clarifications of these rules.

15.2 BODYWORK

Vehicles may only exceed the allowances of 13.2 as specified herein.

A. Fenders and bumpers may be modified for tire clearance. This includes the portion of a hood which serves as a fender/wheel well, where applicable. This does not permit modifications to the chassis or bodywork inboard of the vertical plane of the hub/wheel mounting face (at rest, with front wheels straight ahead). Flares may be added although tires may extend beyond the bodywork. Replacement of complete hood, flared fenders, or quarter panels is prohibited. Plastic and rubber wheel well splash shields may be modified for tire clearance and for installation of fender flares as allowed herein.

B. Factory rub strips, emblems, and mud flaps may be removed

C. *Strut bars (per Section 12) are permitted with all types of suspensions, subject to the following constraints:*

1. A two-point strut bar may be added, removed, modified, or substituted, but only with another two-point strut bar.

2. A triangulated (3-point) strut bar may be removed, modified, or substituted; substitution may be with either a triangulated or a two-point strut bar. The connection to the chassis (i.e., firewall, bulkhead, etc) must be in the standard location.

3. Lower suspension braces must be attached to the lower suspension pickup point locations on the chassis within two inches (2", 50.8 mm) in any direction of the actual suspension attachment to the chassis.

4. Except for standard parts, no connections to other componenets are permitted.

Additional holes may be drilled for mounting bolts. Interior trim panels may be modified to allow installation of strut bars. Holes or slots may be no larger than necessary and may serve no other purpose. This does not permit any modifications to the frame or unibody beyond the allowed mounting holes.

D. Subframe mount bushings may be replaced, but must attach in the factory location(s) without additional modification or changes. Subframe position may not be changed. The amount of metal in a replacement bushing may not be increased relative to the amount of metal found in a standard bushing for the particular application. Solid metal bushings are specifically prohibited.

E. Longitudinal (fore-aft) subframe connectors (SFCs) are permitted with the following restrictions:

1. They must only connect previously unconnected boxed frame rails on unibody vehicles.
2. Each SFC must attach at no more than three points on the unibody (e.g. front, rear, and one point in between such as a seat mount brace or rocker box brace).
3. SFCs must be bolted or welded, but welding must be to the OE subframe stampings, not to the floor pan in between.
4. No cutting of OE subframes or floorpan stampings is permitted. Drilling is permitted for mounting bolts only.
5. No cross-car/lateral/triangulated connections directly between the driver's side and passenger's side SFCs are permitted. Connections to OE components such as tunnel braces or closure panels via bolts are allowed and count as the third point of attachment. No alteration to the OE components is permitted.
6. SFCs may not be used to attach other components (including but not limited to torque arm front mounts or driveshaft loops) and may serve no other purpose.

F. The driver and front passenger seats may be replaced, with the following restrictions: Seats must be securely mounted per 3.3.3.B.2. The seating surface must be fully upholstered. Any replacement seat must be a full back, bucket-type automobile seat incorporating a functional headrest. Kart seats, low-back dune buggy seats, and other similar types of seat are expressly prohibited. Cars may have no fewer than the standard number of seats. The seat tracks are considered part of the seat and may be substituted. Alternate seat tracks may serve no other purpose. The standard seat belts may be removed to facilitate the installation of alternate restraints complying with safety requirements. *An alternate seat which replaces an airbag-equipped seat is not required to have an airbag.*

G. Any steering wheel may be used. An alternate wheel which replaces an airbag-equipped wheel is not required to have an airbag. An alternate wheel is not required to have a horn button.

H. Airbags may be electrically disabled but not removed *unless explicitly allowed*.

I. Spoilers/splitters and cosmetic trim pieces are permitted. Side skirts may not be used. Spoilers/splitters must comply with the following subsections. The intent of this allowance is to accommodate commonly available appearance kits, and replicas thereof, which have no significant aerodynamic function at Solo speeds.

1. A spoiler/splitter may be added to the front of the car below the bumper. It may not extend rearward beyond the front most part of the front wheel well openings, and may not block normal grille or other openings, or obstruct lights. Splitters may not protrude

beyond the bumper. Openings may not be used for the purpose of ducting air to the radiator or oil cooler, but they may allow air to flow through a permitted oil cooler provided no ducting is used. The spoiler may not function as a wing.

2. A spoiler may be added to the rear of the car provided it complies with either of the following:

   a) It is a production rear spoiler which is standard or optional equipment of a U.S. model of the vehicle, or an exact replica in an alternate material.

   b) It is a non-production rear spoiler which is mounted to the rearmost portion of the rear hatch, deck, or trunk lid. The spoiler may extend no more than 10 inches from the original bodywork in any direction. Alternatively, in a hatchback, the spoiler may be mounted to the rear hatch lid at or near the top of the hatch; in such a configuration the spoiler may extend no more than 4 inches from the original bodywork in any direction. The spoiler may be no wider than the bodywork, and it shall not protrude beyond the overall perimeter of the bodywork as viewed from above. The use of endplates is prohibited. Angle of attack is free. The spoiler may not function as a wing.

J. *Rollover structures*

   1. Roll bars must comply with Section 13.2.H in Stock category.

   2. Roll cages must comply with the following:

   a. The roll cage need not be removable. It shall be bolted or welded to the car.

   b. The cage shall attach to the car at no more than 8 points, consisting of the basic cage with 6 attachment points, and 2 additional optional braces.

   c. The forward part of the cage shall be mounted to the floor of the vehicle. If used, the 2 optional braces referred to in (2) shall be mounted, one on either side, from the forward section of the cage to the firewall or front fender wells. No braces shall pass through the front firewall.

   d. Roll cages that utilize NASCAR-style door bars that protrude into the door cavity must comply with the GCR roll cage requirements for production-based cars.

   Installation of roll cages in Street Prepared cars must follow the same standards for interior modifications to accommodate the cage installation as those which are applicable to Showroom Stock or Touring cars in Club Racing.

K. The use of a fuel cell which complies with GCR requirements is permitted, provided all of the following additional restrictions are met:

   1. The capacity of the cell may differ by no more than 20% from that of the original tank.

2. The location of the cell may differ from that of the original tank by no more than six inches in any direction.

3. The car meets all applicable Club Racing Time Trials safety standards, including those for rollover protection and the installation of a fire extinguisher.

L. Fuel tank changes are permitted only as allowed under 15.1.C and 15.2.K. No additional tanks or reservoirs may be used.

M. Accelerator, brake, and clutch pedals may utilize substitute covers of unrestricted origin, shape, and size, provided they meet the following requirements: covers must be securely attached, provide a non-slip surface, not interfere with each other's operation, and must be deemed safe at Tech Inspection. *A clutch pedal stop may be added.*

N. The OE radio may be removed. The OE sound system components, except wiring, may be removed. Any visible holes which result from the removal of such equipment must be covered.

O. Sunroof-equipped cars may be converted to a solid-roof configuration provided a model without a sunroof is listed on the same line in Appendix A.

P. Fog lights may be removed.

Q. Interior rear view mirror and sun visors (and mounting hardware provided it serves no other purpose) may be removed or replaced.

15.3 TIRES

Tires must meet the eligibility requirements for Stock Category with the following exception: the list of non-eligible tires in Section 13.3.A is replaced with the following list, which may be altered at any time by the SEB upon notification of membership.

No tire models are currently listed.

15.4 WHEELS

Vehicles may only exceed the allowances of 13.4 as specified herein.

A. Wheels of any diameter, width, or offset may be used. Aftermarket wheels may be modified to install OE tire pressure sensors.

B. Wheel spacers are permitted. Wheel studs and knock-off wheel drive pegs may be changed in length and diameter. Wheel bolts may be replaced with studs and nuts.

15.5 SHOCK ABSORBERS

Vehicles may only exceed the allowances of 13.5 as specified herein.

A. Shock absorber bump stops may be altered or removed.

B. On cars with lever-type shock absorbers, a tube-type shock absorber may be added. If the lever-type shock serves no other purpose, it must be removed. If the lever-type shock serves any other purpose, it must be retained.

C. Any shock absorbers may be used. Shock absorber mounting brackets which serve no other purpose may be altered, added or replaced, provided that the attachment points on the body/ frame/subframe/ chassis/suspension member are not altered. The installation may incorporate an alternate upper spring perch/seat and/or mounting block (bearing mount). The system of attachment may be changed. The number of shock absorbers shall be the same as Stock. No shock absorber may be capable of adjustment while the car is in motion, unless fitted as original equipment. MacPherson strut equipped cars may substitute struts, and/or may use any insert. This does not allow unauthorized changes in suspension geometry or changes in attachment points (e.g., affecting the position of the lower ball joint or spindle). It is intended to allow the strut length changes needed to accommodate permitted modifications which affect ride height and suspension travel. This allowance differs from Improved Touring Allowance 9.1.3.D.5.b.1.

15.6 BRAKES

Vehicles may only exceed the allowances of 13.6 as specified herein.

A. Any brake line, master cylinder, vacuum brake booster, or brake proportioning valve *that meets the requirements of 3.3.3.B.12* may be used. This does not allow multiple separate cylinders.

B. “Safety brakers” and units such as the “Brake Guard System” are permitted.

C. ABS braking systems may be disabled, but not removed; brake boosters may be removed, modified, substituted, or added.

D. Alternate brake rotors are permitted, subject to the following restrictions:

1. Rotors must be ferrous metal except for standard parts. Aluminum rotor hats are allowed. Rotor dimensions (diameter and thickness) must be equal to or greater than standard parts. Cars originally equipped with solid (non-vented) rotors may utilize vented rotors.

2. Cross-drilled and/or slotted brake rotors may be used. Slots/holes are permitted only in the braking area of the rotor. Rotors featuring a drum-type parking brake in the hat area of the rotor may not be drilled or slotted in the parking brake area.

E. Drum brakes may be replaced with disc brakes. Disc brake rotors for such a conversion must be equal to or greater in diameter than the inside diameter of the standard brake drum. Changes to backing plates/mounting brackets/brake lines to accommodate this change are permitted but may serve no other purpose. Drum-to-disc brake conversions must be bolted, not welded to the axle/control arm/upright.

F. Air ducts may be fitted to the brakes, provided that no changes are made in the body/structure for their use. They may serve no other

purpose. Backing plates and dirt shields may be modified or removed.

G. A functional, redundant emergency (parking) brake must be present.

H. Brake calipers may be replaced, provided the number of pistons is equal to or greater than the original number of pistons. Caliper mounting brackets may be replaced to accommodate this change, but may serve no other purpose. Alternate caliper brackets must bolt to the original caliper bracket mounting location(s).

15.7 ANTI-ROLL (SWAY) BARS

Vehicles may only exceed the allowances of 13.7 as specified herein.

Substitution, addition, or removal of any anti-roll bar(s) is permitted. Bushing material, method of attachment, and locating points are unrestricted. This does not authorize removal of a welded-on part of a subframe to accommodate the installation, or the cutting of holes to route the bar or links. Non-standard lateral members which connect between the brackets for the bar, including allowed strut bars per 15.2.C, are permitted.

The bar may serve no other purpose which is not explicitly permitted elsewhere herein. Components such as anti-roll bars and strut housings which serve dual purposes by also functioning as suspension locators may not be modified or substituted in ways which change the suspension geometry or steering geometry, and may not be installed in positions (e.g. upside down) other than that of the original configuration.

15.8 SUSPENSION

Vehicles may only exceed the allowances of 13.8 as specified herein.

A. Ride height may only be altered by suspension adjustments, the use of spacing blocks, leaf spring shackles, torsion bar levers, or change or modification of springs or coil spring perches. This does not allow the use of spacers which alter suspension geometry, such as those between the hub carrier and lower suspension arm. Springs must be of the same type as the original (coil, leaf, torsion bar, etc.) and except as noted herein, must use the original spring attachment points. This permits multiple springs, as long as they use the original mount locations. Coil spring perches originally attached to struts or shock absorber bodies may be changed or altered, and their position may be adjustable. Spacers are allowed above or below the spring.

B. Suspension bump stops may be altered or removed.

C. Suspension bushings may be replaced with bushings of any materials (except metal) as long as they fit in the original location. Offset bushings may be used. In a replacement bushing the amount of metal relative to the amount of non-metallic material may not be increased. This does not authorize a change in type of bushing (for example ball and socket replacing a cylindrical bushing), or use of

a bushing with an angled hole whose direction differs from that of the original bushing. If the Stock bushing accommodated multi-axis motion via compliance of the component material(s), the replacement bushing may not be changed to accommodate such motion via change in bushing type, for example to a spherical bearing or similar component involving internal moving parts. Pins or keys may be used to prevent the rotation of alternate bushings, but may serve no other purpose than that of retaining the bushing in the desired position. Differential mount bushings are not considered to be suspension bushings and are not covered by this allowance.

D. Differential mount bushings may be replaced, but must attach in the factory location(s) without additional modification or changes. Differential position may not be changed. The amount of metal in a replacement bushing may not be increased relative to the amount of metal found in a standard bushing for the particular application. Solid metal bushings are specifically prohibited.

E. Steering rack bushings may be replaced, but must attach in the factory location(s) without additional modification or changes. Steering rack position may not be changed. The amount of metal in a replacement bushing may not be increased relative to the amount of metal found in a standard bushing for the particular application. Solid metal bushings are specifically prohibited. This does NOT allow shimming or otherwise relocating the steering rack.

F. The following allowances apply to strut-type suspensions: Adjustable camber plates may be installed at the top of the strut, and the original upper mounting holes may be slotted. The drilling of holes in order to perform the installation is permitted, but the center clearance hole may not be modified. Any type of bearing or bushing may be used in the adjustable camber plate attachment to the strut. The installation may incorporate an alternate upper spring perch/seat and/or mounting block (bearing mount). Any ride height change resulting from installation of camber plates is allowed. Caster changes resulting from the use of camber plates are permitted.

G. Camber bolts may be installed, providing these parts use the original, unmodified mounting points. Caster changes resulting from the use of camber bolts are permitted.

H. Camber kits, also known as camber compensators, may be installed. These kits consist of either adjustable length arms or arm mounts that provide a lateral adjustment to the effective length of a control arm. Alignment outside the factory specifications is allowed. Caster changes resulting from the use of camber kits are permitted. The following restrictions apply:

1. On double/unequal arm (e.g. wishbone, multi-link) suspensions, only the upper arms OR lower arms may be modified or replaced, but not both. Non-integral longitudinal arms that primarily control fore/aft wheel movement (e.g. trailing arm(s) or link(s) of a multi-link suspension) may not be replaced, changed, or modified.

2. On arm-and-strut (MacPherson/Chapman) suspensions, the lower arms may be modified/replaced OR other methods of camber adjustment as allowed by paragraphs 15.8.C, F, or G may be used, but not both.

3. On swing or trailing arm suspensions, the main arms may not be modified or replaced, but lateral locating links/arms may be modified or replaced.

4. The replacement arms or mounts must attach to the original standard mounting points. All bushings must meet the requirements of 15.8.C. Intermediate mounting points (e.g. shock/spring mounts) may not be moved or relocated on the arm, except as incidental to the camber adjustment. The knuckle/bearing housing/spindle assembly cannot be modified or replaced.

Note: Many modern suspension designs known by other names actually function as double A-arm designs. These include the rear suspensions on 88+ Honda Civic/Integra, Neon, E36 BMW, and most 'multi-link' and are covered by 15.8.H.1.

I. Solid axle suspension allowances:

1. Addition or replacement of suspension stabilizers (linkage connecting the axle housing or De Dion to the chassis, which controls lateral suspension location) is permitted.

2. Traction bars or torque arms may be added or replaced.

3. A panhard rod may be added or replaced.

4. The upper arm(s) may be removed, replaced, or modified, and the upper pickup points on the rear axle housing may be relocated.

5. The lower arms may not be altered, except as permitted under 15.8.C, or relocated.

Methods of attachment and attachment points are unrestricted, but may serve no other purpose (e.g. chassis stiffening). This does not authorize removal of a welded-on part of a subframe or bodywork to accommodate the installation.

J. On strut-equipped cars, the strut's lower integral mounting bracket, for attachment to the upright or spindle, is unrestricted provided it attaches to the stock location. Any resulting change to the position of the strut centerline is allowed. Such brackets shall serve no other purpose. This does not allow for changes to the integral steering arm on cars that have the steering arm integrated with the strut body.

K. Changes in alignment parameters which result directly from the use of allowed components are permitted. For example, the dimensional changes resulting from the use of a cylindrical offset bushing which meets the restrictions of 15.8.C are allowed, including those resulting from a change in the pivoting action to (a) about the mounting bolt, or (b) about the bushing itself. Eccentric bolts are permitted for suspension adjustment only if they are as specified by the factory, per the last paragraph of 13.8.

15.9 ELECTRICAL SYSTEM

Except for those with electric and hybrid powertrains, vehicles may only exceed the allowances of 13.9 as specified herein.

A. Any ignition setting, adjustment, or system may be used, subject to the requirements of 15.10.D. This does not prohibit the use of "two-step" rev limiters used when the car is stationary.

B. The make, model number, and size of the battery may be changed but not its voltage.

C. Relocation of the battery or batteries is permitted but not into the passenger compartment. If the battery is relocated and the original battery tray can be removed by simply unbolting it, the tray may be removed, or relocated with the battery. Holes may be drilled for mounting or passage of cables. Longer *or shorter* cables may be substituted to permit relocation. The number of battery or batteries may not be changed from stock. The area behind the rearmost seat is not considered to be within the passenger compartment. The area under the rearmost seat is considered to be within the passenger compartment.

D. Any starter, generator, or alternator may be used in the original position. An alternator or generator must have an electrical output (including amperage) equal to or greater than the original equipment unit. Any generator or alternator pulley and belt of the same type as standard may be used (see 15.10.Y).

E. Wiring harnesses may not be removed in whole or in part. Wiring connectors for emissions control devices are considered part of the harness, not part of the emissions control system, and may not be removed.

15.10 ENGINE AND DRIVE TRAIN

Except for those with electric and hybrid powertrains, vehicles may only exceed the allowances of 13.10 as specified herein.

A. Engines must retain standard type lubricating system, but may have any oil pan (Accusump-type systems allowed), oil pump and pickup, oil coolers, oil or fuel filters. Fuel filters must be of automotive type and may serve no other purpose; a substituted fuel filter may not be used as a reservoir. Substituted fuel filters may not exceed one quart total capacity. A permitted oil cooler may be positioned in an opening in an allowed spoiler, provided no unauthorized modifications are made in order to perform the installation. *Any power steering fluid cooler may be added.*

B. Heat shields may be added.

C. Induction allowances are as follows:

1. Carburetors, fuel injection, and intake manifolds are unrestricted, subject to 15.10.D. Alternate throttle linkage and connections to facilitate installation of allowed induction systems are permitted,

but may serve no other purpose. If an induction system item is allowed to be removed and its original mounting bracket can be removed by simply unbolting it, the bracket may be removed as well.

2. Except for standard parts as defined in these rules, the external use while on course of liquids, ice, dry ice, refrigeration systems, vaporized compressed gases, etc. to reduce the temperature of the intake air charge is prohibited. Wrapping of intakes with liquid-soaked fabric is not permitted.
3. As utilized only on engines originally equipped with forced induction, induction charge heat exchangers (known as “intercoolers” or “charge air coolers (CACs)”) are unrestricted in size and configuration. Air-to-air CACs and radiators for air-to-liquid CACs must be cooled only by the atmosphere, except for standard parts. Body panels, fascias, or structural members may not be cut or altered to facilitate CAC installation.
4. Turbochargers and/or superchargers (forced induction) may not be added, changed, or modified (this does not allow ceramic coating of turbochargers). On vehicles originally equipped with forced induction:
   a) No hardware changes or alterations to turbocharger(s) or supercharger(s), in size or number, are permitted. Turbochargers or superchargers may be updated/backdated only in conjunction with the accompanying complete engine unit.
   b) No changes are allowed to waste gate(s) size, number, or location. No changes are allowed to variable-geometry turbine (VGT) hardware.
   c) No changes are allowed to supercharger drive system pulleys. Belt tensioners may be added/changed to reduce belt slip.
   d) No changes are permitted to blow-off/pop-off valves.
   e) Compressor bypass valves (CBVs) are considered part of the air intake system and may be added, replaced, or updated/backdated independently of the other components of a forced induction system.
   f) Boost regulation systems, either electronic or mechanical, and electronic fuel cuts referencing boost pressure may be altered or modified except as prohibited herein. Boost pressure changes resulting from authorized changes are permitted.

D. Traction and/or stability control systems, as defined in 12.11, must be standard parts at standard settings, or electronically disabled.

E. Air cleaner(s) may be changed or removed, velocity stacks may be added.

F. Emission control devices may be modified or removed. This permits the oil filler cap to be modified or substituted, but does not allow

valve covers or cam covers to be altered to install a breather or for any other purpose.

G. Intake water injection systems are allowed.

H. Fuel lines and pumps are unrestricted except as specified herein, as long as they do not pose a safety hazard. Fuel lines may be no larger than 1/2" i.d. and may only connect to the original fuel tank or allowed fuel cell. They may be no longer than necessary for reasonable and safe installation, and may serve no other purpose. A single fuel feed line may be used. A single fuel return line may be used, and a fitting for connecting it may be added at or near the top of the fuel tank. This does not authorize "cool-cans".

I. Exhaust manifolds and muffler systems are free, except that they must be quiet and terminate behind the driver. Exhaust heat shields may be removed. Rear- and mid-engine cars without exhaust headers/manifold systems may use any exhaust system that meets the requirements of 3.5. This permits the removal of "heater boxes" in order to install headers on such cars.

J. Engine mounts may be replaced, but must attach in the factory location(s) without additional modification or changes. Engine position may not be changed. Hydraulic shock type rear engine locators, or bobble struts, may be replaced by manufacturer's performance part or aftermarket replacement part. This part must retain factory dimensions and attachment points, including factory design. (Example: If factory locator/bobble strut is gas or hydraulic piston type, replacement part must be gas or hydraulic piston type.) If one or more non-OE engine mounts are used, 15.10.K does not apply and a torque suppression device may not be used.

K. One bolt-on torque suppression device may be used. A torque suppression device attaches from the engine to the body, frame, or subframe in one location, and controls engine movement at that location along a single axis only. It may serve no other purpose.

Examples of permitted devices:

1) a chain

2) a rod with spherical bearings at each end.

Examples of devices not permitted:

1) any link which confines movement along more than one axis.

2) an engine mounting plate, or one or more plates rigidly bolted between the engine and the frame. Holes may be drilled to mount a torque suppression device. The installation may not include the welding of any plate(s) to the bodywork or to the motor mount(s), nor may it include multiple non-parallel links.

If a torque suppression device is used, 15.10.J does not apply and replacement engine mounts may not be used.

L. Engine cooling radiators may be replaced with alternate parts subject to the following restrictions:

1. Radiator core dimensions (width, height, thickness) must be no smaller than the standard part.
2. Radiator must mount to OE radiator mounts.
3. Fluid capacity and dry weight of the radiator must be no less than that of the standard part. Installation of an alternate radiator may serve no other purpose (e.g. to allow a cold air intake passage).

M. The engine fan and fan shroud (unless it serves another purpose, e.g., as an alternator/generator mount) may be removed, modified or replaced. Electrically driven fans are allowed. Flex fans are not allowed.

N. Transmission mounts may be replaced, but must attach in the factory location(s) without additional modification or changes. Transmission position may not be changed. The amount of metal in a replacement mount may not be increased relative to the amount of metal found in a standard mount for the particular application. Solid metal mounts are specifically prohibited.

O. On two-cycle engines, the ports must be of standard heights, size and configuration; crankcase volume and reed plates must not be altered.

P. Any metal clutch assembly, metal flywheel, or metal torque converter that uses the standard attachment to the crankshaft may be used. Non-metallic friction surfaces (e.g., clutch disks) are permitted. Dowel pins may be added. Any hydraulic clutch line may be used. *Replacement or substitution* of the clutch slave cylinder is *permitted, but this does not allow* non-original methods of clutch actuation (e.g. pull type versus push type).

Q. Any mechanical shift linkage may be used.

R. Limited slip differentials are permitted. This permits locked differentials, either by design, welding, or mechanical means. Differential cases, internal differential parts, and axle stubs may be machined as required for clearance and installation to the extent that material may only be removed, not added, and the exterior of the case may not be altered in any way. This machining may serve no other purpose. Any other modifications or substitutions to accommodate the installation of the limited slip differential must meet the requirements of 15.1.B and 15.1.C.

S. Cylinders may be rebored to no more than 0.0472 in. over standard bore and the appropriate standard oversize piston may be substituted. This overbore dimension is an absolute limit; no additional tolerance is permitted to accommodate wear. Cast or forged, non-stock pistons of the same dimensions and configuration as original equipment pistons may be used. Additionally the replacement pistons must be of the same weight or greater as the original equipment pistons.

Replacement pistons must match OE piston configuration exactly including quench area. The allowance for the use of aftermarket forgings vs. OE castings does not permit alternate piston dome designs. This allowance does not permit alternative ring configurations.

T. Rotating and reciprocating parts may be balanced but not lightened.

U. Intake and exhaust ports and manifold openings may be matched provided no change is made more than one inch from the port/manifold interface. Material may be removed to facilitate port matching, but no material may be added.

V. Any transmission oil cooler may be used.

W. The engine cylinder head(s) may be milled only to that amount specified in the manufacturer's workshop manual. If no amount is specified then a maximum of 0.010 in. may be milled.

X. Axle/halfshaft and driveshaft retention/location devices may be installed for safety reasons to control the motion of attached shafts upon the failure of a coupling or universal joint. They may serve no other purpose. This allowance does not include "C-clip eliminators."

Y. Any crankshaft damper or pulley may be used. SFI-rated dampers are recommended. Supercharged cars may not change the effective diameter of any pulley which drives the supercharger.

Z. Any accessory pulleys and belts of the same type (e.g. V-belt, serpentine) as standard may be used. This allowance applies to accessory pulleys only (e.g., alternator, water pump, power steering pump, and crankshaft drive pulleys). Supercharged cars *may not alter crankshaft/supercharger drive ratio.* Alternate pulley materials may be used. Idler pulleys may be used for belt routing in place of items which the rules specifically allow to be removed, such as smog pumps and air conditioning compressors. They may serve no other purpose.

AA. Camshafts and related parts must remain standard except that alternate cam drive pulleys or gears may be used to adjust cam timing if no variable cam and/or valve timing system exists as standard. Type of cam drive (chain, belt, gear) must remain as standard. Alternate parts of the same general type (e.g. roller chain in place of "silent" chain) may be substituted. Mating parts (block, heads, covers, retainers, etc.) may not be altered. Vehicles equipped with a variable cam and/or valve timing system as standard may use alternate computer calibration to adjust cam and/or valve timing but may not change or substitute cam drive components (hardware).

BB. Upper engine shields made of plastic material, the purpose of which is to hide mechanical components in the engine compartment, may be removed if they have a solely aesthetic and/or acoustic function.

15.11 OUT-OF-PRODUCTION CARS

Where a car is out of production and the manufacturer is either out of business, stocks no parts or no longer has a required part, a part of any

origin but as similar as possible to the original may be substituted. The entrant must be prepared to show documentary evidence that one of the three circumstances above applies and that the substituted part is as similar as possible under the circumstances. Substitute parts which provide improvements in performance (e.g. superior gearing, lighter weight, better camshaft profile, etc.) are not permitted under this allowance.

16. STREET MODIFIED CATEGORY

16.0.A. PURPOSE

To serve as a membership recruitment and retention tool by providing a natural competition outlet for auto enthusiasts using streetable sport sedans equipped with drivetrain and suspension modifications that are beyond those allowed in the Street Prepared category.

16.0.B. CLASSES

1. Street Modified (SM), a class for sedans/coupes as described below.
2. Super Street Modified (SSM), a class for two-seat cars and selected sedans/coupes as described below.
3. Regions are encouraged to use the basic Street Modified rules for (a) class(es) beyond those indicated below if they have a local demand.

16.0.C. VEHICLE ELIGIBILITY

1. STREET MODIFIED (SM):

   All sedans/coupes (models which were originally equipped with a minimum of four seats and four factory seat belts, not sports car based).

   a. Sample Vehicles:

      Chrysler: Neon, Stratus/Breeze
      Ford: Contour, Escort, Probe, Mustang
      General Motors: Cavalier, Sunfire, Camaro
      Honda: Civic, Accord, Integra
      Hyundai: Elantra, Tiburon
      Mazda: Protege, MX-6, 626
      Nissan: Altima, Sentra
      Toyota: Celica, Corolla, Camry
      VW: Golf, Jetta

   b. Sample Excluded Vehicles:

      Porsche, all
      Datsun Z car 2+2
      Honda CRX
      JDM-spec cars
      MGB GT
      Triumph, all

2. SUPER STREET MODIFIED (SSM):

   a. All two-seat cars, including the types of cars listed above in 16.0.C.1.b, which are not excluded below.

   b. All SM eligible sedans/coupes excluded from SM for failure to meet weight requirements.

c. Excluded Vehicles: Lotus (all except Elise, Exige, Esprit), two-seat cars not eligible for the Street Prepared category.

d. Included vehicles: Porsche Carrera GT

3. STREET MODIFIED FWD (SMF) – Supplemental Class

All front-wheel-drive vehicles

See Sections 3.8 and 8.3 for documentation requirements.

16.1 ALLOWED MODIFICATIONS

A. All Stock, Street Touring, and Street Prepared category modifications are authorized. Except as noted by these rules and the referenced rules, vehicles must be as originally delivered including all road-going components such as lights, wipers, interior, heater, etc.

B. Competitors may pick and choose between all Stock, Street Touring, Street Prepared, and Street Modified category allowances when preparing an SM car. Apparent conflicts between inherited rule sets from 16.1.A shall not prohibit any specific inherited allowance. Allowances inherited from 16.1.A may not incorporate SM-specific allowances. Foreign spec parts may not be used to substitute for parts which are required to remain stock.

C. Brakes, including calipers, caliper mounts, disks, drums, lines, backing plates, pedals, boosters, master cylinders, handles, ABS systems, proportioning valves, etc. are unrestricted. Brake rotor/drum friction surfaces must be 100% ferrous metallic. Carbon or ceramic composite brake components (except pads) are expressly prohibited. Standard parts, per 12.4, are exempt from this restriction. A functional, redundant emergency (parking) brake must be present.

D. Drivetrain and related components (induction, ignition, fuel systems, etc.) are unrestricted except for the following limitations:

1. Engine block must be a production unit manufactured and badged the same as the original standard or optional engine for that model. Badges that exist as marketing aliases for the manufacturer will be recognized as equivalents. Swaps involving makes related only at a corporate level are not recognized as equivalents. Models produced as a joint venture between manufacturers may utilize any engine from any partner in the joint venture, provided that an engine from the desired manufacturer was a factory option in that particular model (e.g. Eagle Talon available originally with either a Mitsubishi or Chrysler engine, may use any motor from Chrysler or Mitsubishi). This allows engine blocks manufactured as production units for sale in other countries such as Japan or Germany.

2. Maximum engine displacements per class are specified in Appendix A.

3. Fuel System

a. Any fuel line(s) may be used. All non-*standard* fuel line(s) passing through the passenger compartment shall be made of met-

al, metal braided hose, *or equivalent (e.g., Nomex, Kevlar, or nylon braided hose)* with AN Series threaded couplings; or entirely covered and protected with a metal cover.

b. Any fuel pump(s), filter(s) and pressure regulator(s) may be used. Such components may not be located in the passenger compartment, but their location within the bodywork of the car is otherwise unrestricted. If a mechanical pump is replaced, a blanking plate may be used to cover the original mounting point.

c. A cool-can, not exceeding one gallon in volume, may be used. The cool-can may not be installed in the passenger compartment.

d. The fuel tank may be modified or replaced. If the fuel tank is modified or replaced, the following restrictions apply:

   1. No part of the fuel tank or fuel cell shall be closer than 6 inches to the ground unless enclosed within the bodywork and mounted above the floor pan. A metal bulkhead is required that provides total separation between the driver compartment and the compartment containing the fuel tank and/or filler/neck. This includes fuel tanks that are flush mounted with driver compartment panels or otherwise exposed to the driver compartment. Fuel filler doors in the driver compartment must be positively fastened (non-metallic fasteners are not allowed).

      For the purposes of these rules, a fuel tank consisting of a structure containing a fuel bladder is considered to be the entire fuel cell, including the containing structure. The containing structure of a fuel cell does not qualify as a bulkhead. A separate metal bulkhead must isolate the fuel cell from the passenger compartment.

   2. Internal body panels may be modified to accommodate the installation of the fuel tank as long as such modifications serve no other purpose. In the event installation includes encroachment into the driver's compartment, a metal bulkhead shall prevent exposure of the driver to the fuel tank.

   3. Fuel tank breathers shall not vent into the driver/passenger compartment.

   4. Minimum capacity of a non-standard fuel tank/cell shall be no less than five (5) gallons.

   Motor and drivetrain mounts are considered part of these allowances, and any material is permitted. The allowances of 16.1.P may be used to affix brackets, but these brackets shall serve no purpose other than engine and drivetrain mounting (e.g. they may not provide chassis stiffening).

E. Suspension components are unrestricted as long as they use the original attachment points. For the purposes of this rule, “suspension” is defined as any item that is designed to move when a wheel is deflected vertically. This includes shocks and struts, control arms, steering knuckles, uprights, etc., but not tie rods, steering racks, and subframes. In addition, shock absorber/strut upper mounts are to be considered suspension components.

F. Steering modifications are permitted as follows:

1. Steering components, including the steering rack and/or box, tie rods, idler arms, power assist devices, and related components, may be replaced, added, moved, or removed. The steering column, within the passenger compartment, is specifically excluded from this allowance. This does not permit removal or modification of column-mounted accessories. Wheel-mounted electrical switches such as those for the horn, radio, cruise control, or shifter may be relocated and/or replaced, or eliminated.
2. Rear-steer devices may be replaced with solid links.
3. Supplemental steering gear boxes, a.k.a. steering quickeners, are allowed as long as they are mounted in accordance with 16.1.F.1.
4. Steering wheels and associated mounting hardware may be replaced. This does not permit removal or modification of the steering column or column-mounted accessories. OE wheel-mounted electrical switches such as those for the horn, radio, cruise control, or shifter may be relocated and/or replaced, or eliminated.

G. Subframe connectors are allowed as per Street Prepared (15.2.E).

H. Subframe bushings may be replaced with bushings of any material as long as they fit the original location. Offset bushings may not be used.

I. Front hoods (engine covers), engine covers, trunk lids and hatches not containing glass, front fenders, rear fenders not part of chassis structure (unibody), front & rear facias, and side skirts may be modified or replaced, and may be attached with removable fasteners. Associated hardware including latches, hinges, and window washer nozzles may be modified, removed, or replaced. This does not permit removal of the remainder of the window washer system. Fenders may be flared as per Street Prepared. Non-metallic fender liners may be modified, replaced, or removed.

J. Tires legal in Stock, Street Touring, or Street Prepared are permitted.

K. Rear passenger seat(s), including restraints and associated hardware may be removed.

L. Aerodynamic Aids: Wings may be added, removed, or modified. Non-OE wings may only be attached to the rear deck/hatch area behind the centerline of the rear axle. The total combined surface area of all

wings shall not exceed 8 square feet as calculated per Section 12.9. The number of wing elements is limited to 2.

Wings, and any component thereof, may not extend beyond the vehicle width, as defined by the outermost portion of the vehicle doors, less mirrors, door handles, rub strips, and trim. In addition, no portion of the wing or its components may be more than 6” forward of the rear axle, more than 0” beyond the rear most portion of the bodywork, or more than 6” above the roofline of the vehicle, regardless of body style. For convertibles and roadsters, the highest portion of the windshield frame will be considered the highest portion of the roof.

Reinforcements to the wing mounting area may be used, but may serve no other purpose. Body panels to which a wing mounts must remain functional (e.g. trunk lids and rear hatches must open). Wing endplate surface area is limited to 200 square inches each and limited to a maximum of two.

Except for standard parts, wings designed to be adjustable while the car is in motion must be locked in a single position.

Canards are allowed and may extend a maximum of 6 inches forward of front bodywork/fascia as viewed from above. No portion of the canard may extend past the widest part of the front bodywork/fascia as viewed from above. Canard area will be measured in the same manner as wings using 12.10. Canard area may not exceed 15% of total wing allowance. The sum of canard area and rear wing area may not exceed the total wing allowance.

M. Front splitters are allowed and shall be installed parallel to the ground (within +/-3 degrees fore to aft) and may extend a maximum of 6 inches from the front bodywork/fascia as viewed from above. Splitters may not extend rearward past the centerline of the front wheels. No portion of the splitter may extend beyond the widest part of the front bumper/fascia as viewed from above.

N. T-Tops, targa tops, sunroofs, moonroofs, and similar roof-mounted panels may be removed/replaced with alternate panels provided that the area of interface is limited to the original perimeter of the t-top, sunroof, etc. or utilizes the OE panel mount points, and that the contour of any replacement panel surface does not vary from the contour of the part being replaced by more than 1 inch in any direction. The material used to construct the alternate panel and the method used to attach it to the interface is unrestricted. Any actuation mechanism and the associated wiring, if any, may be removed.

O. Radio/Stereo and airbag equipment and/or its component parts, including wiring, control modules, antennas, amplifiers, speakers and their enclosures, etc. may be removed provided the part added, removed, or replaced serves no other purpose. Any visible holes that result from the removal of equipment must be covered with a cover of unrestricted material. Covers may be used to mount gauges, switches, etc.

P. Any minor modification, intended to allow or facilitate any allowed modification, is permitted as long as it does not provide any intrinsic performance benefit in and of itself, does not provide a weight reduction of more than 1 lb, and is not explicitly prohibited elsewhere within these rules.

This rule is intended to allow minor notching, bending, clearancing, grinding; the drilling of holes; affixing, relocating, or strengthening of brackets; removal of small parts, and similar operations performed in order to facilitate the installation of allowed parts or modifications. Minor strengthening, without relocation, of original chassis/suspension pickup points is allowed. Examples include welding washers restricting control arm mounting bolt movement, local reinforcement of control arm chassis mounts, etc.

These allowances do not permit extensive modifications to a subframe or cross-member to lower an engine which would otherwise not fit in the engine compartment.

Competitors are strongly cautioned to make the minimum amount of modification required to affix a given part, and to not make unduly tortured interpretations of this rule. Modifications to the firewall in order to allow for increased engine setback, and any modification that changes the location of a suspension pickup point, are explicitly forbidden. Plastic under-trays and covers below the *vehicle* may be removed or modified as necessary to facilitate other compliant modifications, but not added or enlarged.

Q. Ballast may be added. Ballast must be a maximum of 50 lbs. per segment. It must be securely mounted in either the spare tire well or the trunk.

R. OE side mirrors may be replaced by aftermarket units, provided they mount in the same location, perform the same function as the OE mirrors, and have a reflective surface area greater than 15 sq. in.

S. OE pop-up headlights may be replaced with static headlights, provided the replacement units are intended for automobile use on public roads as a primary means of illumination, and retain high and low beams as originally provided by the manufacturer. *Minor repositioning of the headlights is allowed to accommodate the alternate headlight, but the unit may not be relocated and the repositioning may servce no other purpose.* All associated hardware may be removed, replaced or modified.

16.2 MINIMUM WEIGHTS

Classes, displacements, and minimum weights are listed in Appendix A. For the purpose of determining SM minimum weights, a mid-engine vehicle is defined as one having a chassis configuration where the engine block is not located entirely in front of the driver's seat, and is not far enough back to be considered a rear-engine vehicle. Adjustments to minimum weights are shown in Appendix A.

16.3 OTHER

Due to the inherent creative nature of this category of classes and the resulting member questions about the intent and interpretation of the rules, the SEB will issue clarifying Tech Bulletins on www.scca.com or in the official SCCA publication on an as needed basis. Car constructors are cautioned against overly creative or tortured interpretations of these rules. When in question, competitors should contact the SCCA National Office for a clarification.

17. PREPARED CATEGORY

17.0.A. Intent

It is the intent of these rules to allow modifications useful and necessary in the preparation of a high performance, production based non-street-driven vehicle. The Club will use the following guidelines in the determination of suitability for classification in the Prepared Category:

1. Cars classified shall retain their original design, structure, and drive layout unless otherwise specified in these rules. If in doubt about a modification, competitors should ask. If the rules do not specifically authorize a modification, it is not permitted.
2. Cars running in Prepared Category must have been series produced with normal road touring equipment, capable of being licensed for normal road use in the United States, and normally sold and delivered through the manufacturer's retail sales outlets in the United States. Cars not specifically listed in Prepared Category classes in Appendix A must have been produced in quantities of at least 1000 in a 12-month period to be eligible for Prepared Category.
3. The Club may also class suitable non-production full-bodied full-fendered strictly-specified cars into this category. Production quantities, EPA approval, and DOT approval are not required. The Club may choose not to classify any such vehicle it deems unsuitable for the Prepared category.
4. Within the scope of these rules, the terms "chassis" refers to the minimal configuration of a car necessary to contain all of the running gear (drivetrain, suspension & steering) and to provide support for the body. For cars of "frameless" construction, the chassis is the central contiguous assembly of stressed panels and subframes which form the basic structure necessary to contain all the running gear of a car.
5. Specific allowances in Appendix A for a listed model supersede the limitations of Section 17. Minimum weights shall be established making it possible for all cars to reach minimum weight with reasonable modifications. The SEB recognizes that low minimum weights ultimately result in higher costs to the competitor. The rules shall discourage the use of high technology/high cost equipment. In some cases, this is accomplished by an outright ban on the equipment. In other cases, this is accomplished through the adjustments to minimum weight. See Section 17.11 for weight adjustments.

17.0.B. Specifications

The SCCA shall publish specifications for each car specifically classed in the Prepared Category section of Appendix A. These specifications will at a minimum specify each vehicle's allowed minimum weight and maximum wheel sizes.

1. Equipment and/or specifications may be exchanged between different years and models of a vehicle if

   (a) the item is standard on the year/model from which it was taken, and

   (b) the years/models are listed on the same line of Appendix A (Prepared Classes). The updated/backdated part or the part to which it is to be attached may not be altered, modified, machined or otherwise changed to facilitate the updating/backdating allowance unless the modification is specifically allowed by these rules. Cars not listed in the Prepared Category sections of Appendix A may not be updated/ backdated until approved by the SEB and www.scca.com published in the official SCCA publication.

2. The Club may recognize certain optional components. Some non-original components may be made mandatory to obtain an adjustment of competition potential. In all cases, these components shall be listed in Appendix A. No permitted or alternate component or modification shall additionally perform a prohibited function.

3. Requests for alteration, modification, and/or substitution of any specification or component shall be submitted to the Club for approval. The approval process will include, but not be limited to, an analysis of cost, availability, performance impact, rule enforceability, and competitor input.

See Sections 3.8 and 8.3 for documentation requirements.

17.1 AUTHORIZED MODIFICATIONS

The modifications defined in the Prepared Category Section are the only allowed modifications. The rules in this section stand on their own; they do not build upon the Stock or Street Prepared Category rules. Modifications shall not be made unless specifically authorized herein. No permitted component/modification shall additionally perform a prohibited function. If the rules do not specifically authorize a modification, it is not permitted.

A. It is not permitted to make any changes, alterations, or modifications to any component produced by the manufacturer, unless specifically authorized by these rules.

B. Any minor modification, intended to allow or facilitate any allowed modification, is permitted as long as it does not provide any intrinsic performance benefit in and of itself, and is not explicitly prohibited elsewhere within these rules. This rule is intended to allow minor notching, bending, clearancing, grinding; the drilling of holes; affixing, relocating, or strengthening of brackets; removal of small parts, and similar operations performed in order to facilitate the installation of allowed parts or modifications. Competitors are strongly cautioned to make the minimum amount of modification required to affix a given part, and to not make tortured interpretations of this rule. (e.g.: mov-

ing frame rails inboard, regardless of the reason, is considered to be a tortured interpretation.)

Refer to Appendix F for past clarifications of these rules.

17.2 BODYWORK AND STRUCTURE

The purpose of the following rules is to maintain recognizable external features of the manufacturer's make and model, while providing the necessary safety and performance modifications. Restrictions regarding external body shape and belly pans are aimed at preventing attempts to obtain ground effects or streamlining.

A. The external shape of the body may only be changed where specifically authorized. Standard window openings, rain gutters, or approved facsimiles shall be retained. All external trim and model identification may be removed. Grilles may be removed, modified, or substituted.

B. Chassis, frame, or subframe may be reinforced, provided components and attachments are not relocated except where specifically permitted. Reinforcing does not authorize the use of belly pans forward of the firewall, or aft of the front edge of the rear wheel opening. It is permitted to have jack points recessed into the rocker panels, or to have one tube per side extending downward through the bottom of the door, provided they do not extend beyond the overall width of the car or in an unsafe or dangerous manner. No part of the bodywork or chassis, to the rear of the front wheel opening, shall touch the ground when both tires on the same side of the car are deflated.

C. The chassis, frame, or subframe may be notched or cut and brackets may be added for the purpose of attaching alternate suspension or drivetrain components, except that the firewall may not be modified for engine block or cylinder head clearance. Holes may be cut to provide clearance for authorized suspension and drivetrain components, through their entire range of travel. Additional structure may be added in order to attach allowed components to the chassis.

D. Replacement of any chassis component (e.g. subframe) in its entirety by one of alternate construction, unless specifically permitted, shall result in the vehicle being "in excess" of these rules and weight penalties and/or competitive adjustments may apply.

E. The floor in the driver/passenger compartment may be modified for installation of subframe connectors, exhaust components, and for driveshaft clearance. When modified, the driver/passenger compartment must remain separate from any exhaust and driveshaft components. The modified area must be steel or aluminum and no more than a 4 in. clearance is allowed between modified floor area and exhaust, or modified floor area and driveshaft components.

Trunk floors may be modified, removed, or replaced. If replaced, the trunk floor must be replaced with metal panels of similar shape to the original. Removal of the trunk floor is allowable only when a

metal bulkhead separates the trunk area from the passenger compartment.

F. The firewall may be notched or recessed for clearance of exhaust headers, electric lines, *coolant lines,* fuel-carrying lines, *fuel pumps, intercooling piping,* carburetors, air horns, air cleaners, and distributor. Any material added to the firewall must be either steel or aluminum. This requires a sealed firewall between engine and passenger compartment. This rule is for driver's safety. Completely sealing all firewall openings is strongly encouraged, but no gap may be larger than 1/8 inch (0.125", 3.2 mm), except around dynamic devices extending through the firewall (e.g., throttle linkage, transmission linkage or other mechanical devices) and should be sealed to the extent that functioning of the device is not impaired. No more than 8 inches (8", 203.2 mm) clearance is allowed between modified firewall areas and above listed components. The engine block, cylinder head, *turbochargers, and/or superchargers* may not intrude into the clearance areas authorized herein.

G. Bumper components not integral to the bodywork may be modified, substituted with a replica of alternate material, or removed provided all projecting hardware is also removed. Bumper bracket holes in the bodywork may be covered provided such covering serves no other purpose. Bumper fascias integral with the bodywork may be modified or substituted with a replica of alternate material. Internal bumper components may be removed, replaced, or modified. Modified or replica bumpers/fascias must be of similar shape as standard components, completely cover the area of the OE bumper/fascia, and not confuse the identity of the vehicle.

H. All interior trim, dash boards, gauges, floor covering, carpet and upholstery panels and similar non-performance comfort or convenience items may be removed or replaced.

I. The driver seat may be replaced with a seat of any origin. All passenger seats may be removed or replaced with seats of any origin. Driver's seat must remain on the stock side of the car and may not cross the centerline of the car. The seat may be relocated fore/aft by up to 12 inches based on the centerline of the original front and rear mounting points. Rear bulkhead of the driver/passenger compartment may not be removed to relocate seat and driver's seat may not extend rearward past the bulkhead.

J. Doors may be lightened and may be replaced by ones of alternate materials. Doors may be pinned, but not bolted, to prevent their opening in case of an accident. Quick release fasteners (e.g. Dzus fasteners) are allowed. Standard door hinges and latch mechanisms may be removed, but the doors shall be capable of being opened or removed. Interior door panels may be removed or replaced and the door window slots may be covered. Alternate attachment devices may be added to hood and deck lid to supplement or replace the latches. Hood and deck lid hinges may be removed.

K. Windows

1. All windows may be replaced with polycarbonate material. The front windshield shall have a minimum thickness of 1/8 inch. Tinting of the upper portion of the front windshield and the entire portion of all other windows is allowed. All window replacements shall remain in the same position in the frame or opening as the original glass it replaces; rubber molding is optional.
2. All window channels and window winding mechanisms may be removed.
3. Closed cars: All side window glass may be removed. All rear hatchbacks and deck lids shall be completely closed; poor alignment of bodywork or any other means to prevent complete closure is not permitted.
4. Open cars: All windows and windshields (including windshield frames) may be removed. The resulting window slots may be covered.
5. The installation of windshield safety clips, rear window safety straps, and windshield safety straps is permitted.

L. The contour of the fender may be altered (flared) for tire clearance provided the modifications do not confuse the identity of the car. Only standard production ventilation openings on the specific recognized model are permitted. Tires may extend beyond the bodywork. Fender wheel openings may be trimmed to provide tire clearance throughout the full range of suspension travel, but no more than is necessary for this purpose.

M. Inner fender panels separating the wheel wells from the engine compartment may be altered, replaced, or removed. Rear inner fender panels may be altered, replaced, or removed provided there are panels providing total separation between driver/ passenger compartment and wheels. A shock/strut tower integral to the inner fender panel is considered part of the inner fender panel and is included in this allowance. This does not allow modification of frame/frame stubs beyond Section 17.2.C.

N. Replacement, addition, or removal of accessories (gauges, switches, indicators, etc.), or other interior modifications for driver convenience, or to permit installation of required safety equipment, is authorized provided such modifications have no influence whatever on the mechanical performance of the car. Such modifications do not include the substitution or replacement of any bodywork or chassis component except those specifically authorized by these rules.

O. The standard OE front spoiler or a non-standard front spoiler may be used. If a non-standard front spoiler is used it must comply with the following requirements: It shall not protrude beyond the overall outline of the car as viewed from above, or aft of the forward-most part of the front fender opening (cutout) and shall not be mounted more than four inches above the horizontal centerline of the front wheel

hubs. The spoiler shall not cover the normal grille opening at the front of the car. An intermediate mounting device may be used on cars whose front bodywork is above the four inch minimum. Openings are permitted for the purpose of ducting air to the brakes, radiator, and/or oil cooler(s); equal openings may be placed in the standard lower front panel directly behind openings placed in the spoiler.

P. A spoiler may be added to the rear of the car provided it complies with either of the following:

1. It is a production rear spoiler which is standard or optional equipment of a U.S. model of the vehicle, or an exact replica in an alternate material.
2. It is a non-production rear spoiler which is mounted to the rear portion of the rear hatch, deck, or trunk lid. The spoiler may extend no more than 10 inches from the original bodywork in any direction. Alternatively in a hatchback, the spoiler may be mounted to the rear hatch lid at or near the top of the hatch in such a configuration the spoiler may extend not more than 7.5 inches form the original bodywork in any direction. The spoiler may be no wider that the bodywork. The use of endplates is prohibited. Spoiler endplates are defined as any vertical (or semi-vertical) surfaces attached in front of the spoiler which have the result of capturing and redistributing air (downforce) along all or any portion of the spoiler. The angle of attack is free. The spoiler may not function as a wing.

Q. The fuel tank may be modified, replaced, or relocated. If the fuel tank is modified or replaced, the following restrictions apply:

1. No part of the fuel tank or fuel cell shall be closer than 6 inches to the ground unless enclosed within the bodywork and mounted above the floor pan. A metal bulkhead is required that provides total separation between the driver compartment and the compartment containing the fuel tank and/or filler/neck. This includes fuel tanks that are flush mounted with driver compartment panels or otherwise exposed to the driver compartment. Fuel filler doors in the driver compartment must be positively fastened (non-metallic fasteners are not allowed). For the purposes of these rules, a fuel tank consisting of a structure containing a fuel bladder is considered to be the entire fuel cell, including the containing structure. The containing structure of a fuel cell does not qualify as a bulkhead. A separate metal bulkhead must isolate the fuel cell from the passenger compartment.
2. Internal body panels may be modified to accommodate the installation of the fuel tank as long as such modifications serve no other purpose. In the event installation includes encroachment into the driver's compartment, a metal bulkhead shall prevent exposure of the driver to the fuel tank.
3. Fuel tank breathers shall not vent into the driver/passenger compartment.

R. All mirrors and their associated mounting hardware may be removed or replaced.

S. The hood, hatchback, deck lid and fenders may be lightened or replaced by ones of alternate material, provided the shape is similar to the original and does not confuse the identity of the vehicle. Factory bolt-on fenders may be replaced in their entirety. Cars with non-removable fenders may replace the front fender panels going forward from the foremost door opening and the rear fender panels going rearward from the rearmost door opening. Closed cars must not remove stock material above the horizontal line placed at the lowest point of the driver's door window opening*, with the exception that OE removable panels (e.g., T-tops, targa tops, sunroofs) may be removed or replaced with panels of alternate material provided that the dimensions of any replacement panel do not vary from those of the original by more than one inch (1") in any direction*. The approval of alternate body panels does not authorize the use of belly pans forward of the firewall or aft of the front edge of the rear wheel opening. Ground effect tunnels and/or attempts to gain ground effects are also not authorized. Any such elements incorporated in the otherwise approved components must be removed or disabled.

Front hoods and engine covers may be vented and/or louvered. The total area for all vents/louvers on a vehicle may not exceed 500 sq in (3225.8 sq cm), unless provided as standard equipment. The total area is measured as the total open area or the perimeter of the louvers when viewed from above. All openings must be covered with a wire mesh having openings no greater than 1/2" (12.7mm).

The location, number, and shape of vents/louvers is unrestricted provided they are fully contained on allowed panels. For vehicles having original vents/louvers exceeding these dinemsions, no further openings are permitted. Louver openings must face rearward and may stand no higher than one inch (1", 25.4 mm) above the original surface. No additional scoops, cowls, bulges, or ducts are permitted unless specificed in Appendix A.

T. All headlights, front parking lights, and front signal lights may be removed. Headlight doors may be removed, replaced or modified. Any remaining openings shall be covered with a wire mesh screen or panel of fiberglass, Plexiglas, metal, or other nonflammable material. Ducts from headlights, headlight doors, front parking lights, and front signal lights may be used for ducting air to the engine, front brakes, and/or oil cooler(s). Any opening used for ducting may not be relocated. These ducts may pass through interior panels for this purpose. The cross section area of a single duct shall not exceed the cross sectional area of the original (single) headlight.

U. All side marker lights and tail/stop lights may be removed. If such an item is removed, the resultant opening must be covered.

V. Spare wheel and tire may be removed.

17.3 TIRES

Any tire (including recaps) meeting the Solo safety requirements (and the applicable portions of 3.3) is allowed.

17.4 WHEELS

A. Any wheel not exceeding 12” in width may be used for all classes *except GP Limited Preparation Vehicles.*

B. Wheel spacers may be used.

C. Any wheel mounting stud or bolt may be used.

D. The use of center lock wheels and hubs is permitted.

E. The manufacturer’s original wheel size may be used; this is axle-specific relative to original-size wheels. Track dimensions must comply with those specified in Appendix A, as applicable. Any weight penalties listed in Section 17.4 must be complied with. Original equipment size wheels exceeding 17.4.A are allowed with no additional penalty beyond those specified.

F. For supplemental class BP, wheels up to 16” x 10” are allowed with no penalty.

1. Wheels greater than 10” in width will receive a 50 lb. penalty.
2. Wheels greater than 16” in diameter will receive a 100 lb. penalty.

G. For class CP, wheels up to 16” x 10” are allowed with no penalty.

1. Wheels greater than 10” in width will receive a 50 lb. penalty.
2. Wheels greater than 16” in diameter will receive a 50 lb. penalty.

H. For classes DP and EP, wheels up to 7” in width are allowed with no penalty.

1. Wheels greater than 7”, and up to 10” in width will receive a 75 lb. penalty.
2. Wheels greater than 10” wide will receive a 150 lb. penalty.

I. For class FP, wheels up to 10” wide are allowed with no penalty. Wheels greater than 10” wide will receive a 100 lb. penalty.

17.5 SHOCK ABSORBERS & SPRINGS

A. Any springs or torsion bars may be used. Spring seats and points of attachment may be replaced or altered. Adjustable spring perches are permitted.

B. Alternately, all cars may fit “coil over” type springs with tubular, load bearing shock absorbers or struts. The shock absorber or MacPherson/Chapman strut shall be installed inside the spring. Such items shall not exceed one shock/strut per wheel. When load bearing shocks are used, the original springs may be removed.

C. Any shock absorbers may be used. The total number of shock absorbers installed shall not exceed the number originally installed by the manufacturer.

D. Attachment points for the shock absorbers may be changed. There shall be a metal panel, covering, or bulkhead separating non-stock rear attachment points from the driver.

E. Lever shock absorbers may be modified or entirely eliminated. When lever shocks are replaced with tubular shocks, the entire shock assembly may be removed and replaced with a control link and bracket that approximates the control function of the original lever shock.

F. Bump stop rubbers and bracketry may be removed or replaced with others of unrestricted origin.

G. Electrically controlled active shocks are prohibited.

17.6 BRAKES

Brake systems, including calipers, caliper mounts, disks, drums, lines, backing plates, pedals, boosters, master cylinders, handles, proportioning devices, pads, linings, etc. are unrestricted except for Section 3.3.3 requirements and as follows:

A. Brake rotors/drums shall be located in the original position (i.e. inboard vs. outboard).

B. Brake rotor/drum friction surfaces must be ferrous metal. Carbon or ceramic composite brake rotors/drums are expressly prohibited.

C. Addition, replacement, or modification of Anti-lock Braking Systems (ABS) is prohibited. The standard system may be removed in its entirety or disabled electrically in a manner not readily accessible while driving, but not altered in any other way. Sensors, control & proportioning valves, computers, and master cylinders are considered part of the ABS system and may be not altered nor relocated.

D. Pedals, calipers, rotors, and brake lines may be replaced or modified.

17.7 ANTI-ROLL (SWAY) BARS

Any anti roll bar, camber compensating device, panhard rod, watts linkage, and/or other suspension stabilizer is permitted. Attachment points of such components are unrestricted.

A. Components may extend into the driver/passenger/trunk compartments, but shall be covered with metal panels.

B. Components may pass through body panels, chassis panels, and frame members.

17.8 SUSPENSION/SUSPENSION CONTROL

A. Spindles, hubs, bearings, bearing carriers, stub axles, etc., may be modified or replaced.

B. Suspension Control

1. Original suspension control arms may be reinforced, modified, or replaced with components of unrestricted origin.
2. Suspension pick up points on the chassis or structure may be relocated. If such points are relocated, there shall be a metal panel, covering, or bulkhead separating the driver from the suspension components.
3. Vehicles originally equipped with MacPherson strut front suspension may convert to double A-arm. All other vehicles must retain the manufacturer's system of front suspension. A-arm front suspension shall have the shocks attached outboard of the inner pick-up point on the upper or lower control arm. Rocker arms, push-pull rods, etc., are prohibited, unless otherwise stated in Appendix A.
4. The manufacturer's original basic type of rear suspension (e.g. independent, live axle, swing axle, MacPherson strut, A-arm, etc.) shall be retained, unless otherwise stated in Appendix A. Rocker arms and push-pull rods may be used to augment the rear suspension members.
5. Suspension bushings are unrestricted. Adjustable spherical bearings or rod ends are permitted on all suspension components.
6. The wheelbase of the vehicle shall not be changed or relocated in a fore/aft direction by more than +/- 1 inch.
7. The minimum track for all prepared cars is the OE track dimension. (Note: this minimum applies to cars utilizing Section 17.11.A to compete in Prepared.)

C. Steering

1. Steering arms, pitman arms, and steering linkage component parts may be modified, reinforced, or substituted. The steering system may be relocated or changed.
2. For model years 1983 and later, a steering column, if modified, shall be a collapsible-type, either by layout design or by column construction. A collapsible type column is one which has a layout and design and/or column structure exhibiting impact and energy-absorbing characteristics, as exemplified by those found in modern factory-original steering systems. A steering column equivalent to Federal Motor Vehicle Safety Standard No. 204 is in compliance with this requirement.
3. Any steering wheel and wheel quick release mechanism may be used. Steering wheel rake and steering column length may be altered.

D. All spherical rod ends used on major suspension and steering components shall be retained either by the design of the mounting brackets, a larger area captive washer, or the inherent mechanical design of the unit (circlip or Messerschmitt joints).

17.9 ELECTRICAL SYSTEM

A. The use of any driver operated electric starter is permitted.

B. The use of any ignition system (except magneto ignition) is permitted, provided the number of spark plugs remains the same as that of the standard production engine. If a distributor is removed, a blanking plate or breather may be fitted in its place.

C. The original generator or alternator may be completely removed or replaced. Mounting location and drive system for the generator or alternator is unrestricted.

D. The remaining components of the electrical system are unrestricted.

E. It is recommended that all vehicles be equipped with an electrical system master cutoff switch.

17.10 ENGINE & DRIVE TRAIN

A. Component Modification

1. Original and alternate components of the engine may be lightened, balanced, and modified by any mechanical or chemical means, provided that it is always possible to identify required components as original. Such means include, but are not limited to, shot peening, glass beading, heat treatment or hardening, plating, and milling or otherwise tooling.

2. No material or mechanical extension may be added to any required original component unless specifically authorized by these rules. Any repair performed to a required original component shall clearly serve no other prohibited function. Compression ratio may not be increased via welding of combustion chambers.

B. Induction System

Unless specifically listed in Appendix A, carburetors and fuel injection systems are unrestricted. Update/backdate rules allow fuel injection swaps within the specifications for makes and models listed on the same line.

C. Induction System - Turbocharged/Supercharged Engines

1. Turbocharging and supercharging is prohibited except for specific vehicles as listed in Appendix A.

2. Induction systems must have a restrictor on the inlet side. This restrictor orifice must not be more than four inches from the compressor inlet and must maintain the specified diameter for at least 0.500” (one-half inch). All inducted air must pass through this restrictor. The diameter for the restrictor (unless specified otherwise in Appendix A) is 52mm.

3. Only air-to-air intercoolers may be used. They must fit completely within the bodywork. They must be cooled only by the atmosphere. The use of coolants such as water, dry ice, ice, etc. is prohibited.

4. All turbocharged/supercharged cars are restricted to a single turbocharger/supercharger. The type size and model of turbocharger/supercharger is unrestricted.

D. Induction System - General

1. Any air filter(s), velocity stack(s) and or air box(es) may be fitted. Air may be ducted to the carburetor or fuel injection provided that the ducting is contained within the engine compartment and that the air to be ducted is supplied through normal or specifically authorized openings in the bodywork. Headlight, front parking light, front signal light, and similar standard openings in the front of the car may be used for ducting air to the engine, and ducts may pass through interior panels for this purpose. “Standard openings in the front of the car” includes ventilation system intake grilles.
2. Intake manifolds are unrestricted except that no portion of any intake manifold may extend into the intake ports of the cylinder head or rotary engine end plate.
3. Any throttle linkage may be used. All throttle linkages shall be equipped with more than one system of positive throttle closure. Any throttle pedal may be used.
4. All inducted air, with the exception of idle air, shall pass through the throttle venturi(s).

E. Fuel System

1. Any fuel line(s) may be used. All non-standard fuel line(s) passing through the passenger compartment shall be made of metal or metal-braided hose *or equivalent (e.g., Nomex, Kevlar, or nylon-braided hose)* with AN Series threaded couplings or entirely covered and protected with a metal cover.
2. Any fuel pump(s), filter(s) and pressure regulator(s) may be used. Such components may not be located in the passenger compartment, but their location within the bodywork of the car is otherwise unrestricted. If a mechanical pump is replaced, a blanking plate may be used to cover the original mounting point.
3. A cool-can, not exceeding one gallon in volume, may be used. The cool-can may not be installed in the passenger compartment.

F. All emission equipment may be removed, in part or in whole. Removal is the only permitted modification to emission control equipment. When EGR air nozzles are removed from a cylinder head, the resultant holes shall be completely plugged.

G. Cylinder Head

1. The original or a specified alternate cylinder head shall be used. Any valve guides and valve seats may be used.
2. Compression ratio may be altered by machining, using any head gasket(s), or elimination of head gasket(s).

H. Camshaft and Valve Gear

1. Any camshaft(s) may be used.
2. Cam timing chains, gears, belts, sprockets, and associated covers are unrestricted.
3. A timing chain/belt tensioner may be added to those engines not originally so equipped, provided that it acts upon that portion of the chain/belt that travels from the crank drive to the first cam sprocket/gear. The timing chain cover may be modified to facilitate its use. Adjustable cam timing sprockets are permitted.
4. Any metal valves may be used. Valve sizes are unrestricted. Valve springs, valve retainers, keepers, seals, and adjusting shims are unrestricted.
5. Valve rocker arms, shafts and attendant assemblies (such as rocker stud girdles) are unrestricted.
6. Pushrods are unrestricted except they must be made of metal.
7. Any cam followers may be used.
8. Any valve covers may be used.

I. Block

1. The block may be rebored no more than 0.0472 inches (1.2mm) over standard. US-produced six-cylinder and eight-cylinder engines may be rebored no more than 0.060 inches (1.52mm) over standard. Alternate blocks which are of the same material and nominal dimensions as standard are allowed. Critical dimensions for piston engines are deck height, cylinder bore, cylinder spacing, vee angle, and distance from crank centerline to cam centerline. Critical dimensions for rotary engines are epitrochoidal curve, working chamber volume and eccentric shaft location.
2. Cylinder sleeves may be fitted to the block for repair purposes if they serve no other prohibited function. Sleeving may not be used to create a new engine configuration (one which exhibits the same displacement as an allowed engine, but which has differing bore and stroke), unless authorized in Appendix A. Oil passages may be enlarged, restricted, or plugged.
3. Any crankshaft main bearing caps and any additional main bearing cap bolts may be used, provided that no material is added to the block for their use. Any crankshaft main bearing stud girdle may be used.
4. The compression ratio may be increased by means of milling the block, and the block may be machined to utilize O-rings to replace or supplement a cylinder head gasket.
5. The block may be machined for the purpose of adding or substituting crankshaft oil seal(s) and related attachment devices.

J. Pistons and Rods

1. Pistons, pins, clips and/or pin retainers and piston rings are unrestricted. Pistons shall be constructed of metal.
2. Alternate connecting rods made of ferrous material are permitted.

K. Crank and Flywheel

1. The crankshaft may be replaced with another of the same basic material, provided the angles of the crank throws remain the same. No change in stroke is permitted unless authorized in Appendix A.
2. The original direction of crankshaft rotation and firing order shall be maintained.
3. The use of any external crankshaft vibration dampener is permitted.
4. Any clutch is permitted. The linkage between the clutch pedal and the clutch housing/clutch actuating mechanism is unrestricted, but may serve no other purpose. A mechanical linkage may be replaced with a hydraulic system. Any clutch pedal may be used.
5. Any steel or aluminum flywheel is permitted.

L. Oiling System

1. Any engine driven oil pump may be used, including a dry sump system. The dry sump tank shall be mounted within the bodywork. If said tank is mounted in the driver/passenger compartment, it shall be isolated from the driver by means of a metal bulkhead or additional container that retains any spillage or leakage.
2. The use of any oil pan/sump, scrapers, baffles, windage trays, oil pickup(s), pressure accumulator/"Accusump" and oil filter(s) is permitted. Filter and accumulator location is unrestricted, but they shall be securely mounted within the bodywork.
3. The installation of any type of vent or breather on the engine is permitted. Crankcase, oiling system, breather, or catch tank evacuation systems that are in any way connected to the exhaust system are prohibited.

M. The components of the exhaust system are unrestricted. Exhaust must be compliant with Section 3.3.3.B.13 and may exit through the bodywork. Rocker panels may be modified for exhaust routing.

N. Other Engine Components

1. The use of alternate engine components which are normally expendable and considered replacement parts, such as seals, bearings, water pumps, etc., is permitted. Fasteners may be substituted.
2. Bushings may be installed where none are fitted as standard, provided they are concentric, and that the centerline of the bushed part is not changed. The addition of alignment dowels is permit-

ted. Bushings are required to be concentric so that unintended relocations and realignments are not permitted.

3. Gaskets may be replaced with others of unrestricted origin.
4. Alternator/generator, crankshaft, and water pump pulleys may be altered or replaced by others of unrestricted origin.
5. One or more engine torque suppressors may be fitted. Original torque suppressors may be altered, replaced, or removed.
6. Motor mounts of alternate design and/or material may be used.
7. The engine may not be relocated.

O. Engine, Rotary Piston (only) Modifications

1. No changes in the epitrochoidal curve of the motor are permitted.
2. The capacity of the working chambers shall not be changed.
3. The eccentric shaft may be replaced with another of the same basic material, but no changes in the eccentricity or bearing journal dimensions are permitted.
4. Rotors are unrestricted, provided the material and number of lobes remains unchanged.

P. Cooling System

1. Cooling fan(s) may be modified, substituted, or removed. Electrically operated cooling fan(s) may be installed, provided it (they) serve no other purpose. The use of any engine, transmission, and/or differential oil coolers(s) is (are) permitted provided it (they) is (are) mounted completely within or under the bodywork, but not in the driver/passenger compartment. Associated oil cooler pumps and lines are permitted for the transmission and differential. Air ducts may be fitted to the oil cooler(s) as specifically authorized herein.
2. Any water radiator is allowed, provided there are no changes in the exterior bodywork to accommodate its use. It shall not be located in the driver/ passenger compartment. Separate expansion or header tank(s) are permitted, provided they are not mounted in the driver/passenger compartment. The heater core may be removed entirely but not modified or replaced. Water radiators may be filled with water, antifreeze, and/or nonflammable liquids the purpose of which is to transfer heat and/or inhibit freezing, boiling, and/or corrosion. A Corvair may use a water radiator. Other modifications which may be involved in its use are not permitted unless explicitly allowed by the contents of Section 17. A radiator may be relocated so long as the other applicable items in Section 17 are not violated (e.g. the exterior bodywork is not altered) to accommodate the change.
3. Sealing or shrouding the airflow area between the normal grill opening and the water radiator is permitted.

4. On water-cooled cars, thermostats may be removed, modified or replaced with blanking sleeves or restrictors.
5. The direction of water flow through the engine shall not be changed from that which was original for the engine, unless authorized in Appendix A.
6. Electrically driven water pumps are allowed. Alternate mechanical water pumps are not required to be of the same configuration as the original. Electric water pumps may be relocated.

Q. Transmission

1. The stock transmission without modification may be used.
2. Any mechanical shift linkage or mechanism for changing gears may be used, including use of lockout mechanisms. The shift lever opening in the body of the car may be altered to allow the installation of an alternate shift linkage.
3. If a modified stock transmission, or a transmission from another source is used:
   a. Any non-sequential manual transmission is allowed. Any automatic sequential transmission employing a torque converter is allowed.
   b. Hydraulic/electric shifting mechanisms may be modified in automatic sequential transmissions employing a torque converter.
   c. Pneumatic, hydraulic, or electronically-controlled shifting is not allowed for manual transmissions, except for electronically-controlled overdrive manual transmissions in cars which were originally equipped with them.
   d. Gear ratios may be modified.
   e. A functional reverse gear is not required.
   f. The transmission tunnel/cover may be altered to allow the installation of an alternate transmission and/or driveshaft. Cars originally equipped with a removable transmission tunnel/cover may substitute a tunnel/cover of an alternate material.

R. Final Drive

1. Alternate driveshaft(s) may be used. Any driveshaft assembly may be modified to permit the use of an alternate transmission. All non-stock driveshafts must be made of metal.
2. Any gear ratio, limited slip or locked differential is permitted. Final drive units which permit ratio changes while the car is in motion are prohibited.
3. Any axle tube or final drive housing is permitted.
4. Any drive axle shafts, bearings, bearing carriers, hubs, and universal/CV joints may be used.

5. “Loops” may be installed to prevent the driveshaft from contacting the ground in the event of shaft and/or U-joint failure.

S. All engine crankcase, and radiator overflow/breather lines shall terminate in containers of at least one quart capacity. These containers cannot be vented into the driver/passenger compartment.

17.11 OTHER

A. Vehicles prepared in excess of Solo allowances and prepared up to either the current GCR are permitted to compete in their respective Prepared classes. Section 17.8.B.7 minimum track requirements apply. Minimum weight will be 110% of the Solo minimum weight from Appendix A plus any Solo weight penalties (wheel size penalties, etc.). Vehicles taking advantage of this allowance may use the Solo Rules or the Club Racing GCR (General Competition Rules) allowances in whole, in part, or in combination. Cars which are not listed in the GCR may not use this allowance and are limited to the modifications allowed in Section 17. For those cars which have been delisted from the current year GCR, the appropriate specifications will be developed and added to Appendix A upon member request. An exception to the GCR will be that open cars are permitted, provided they comply with all provisions of Section 17 pertaining specifically to open cars. The following items listed in the GCR, while recommended, are not required: Logbooks, annual inspections, roll cage, on-board fire systems, hand held fire extinguisher, scattershield/ chain guards, master switch, steering wheel lock removal, window safety net, windshield safety clips and rear window safety straps, and braided steel brake lines. Single Inlet Restrictors (SIRs) are not required. Due to the extent of modifications permitted on GT-derived cars classed within the Prepared category, it is possible for a replica car to meet the legality requirements for the corresponding original model provided that the engine, track, and wheelbase remain within the allowed specifications. In such a case the replica is considered legal for Prepared, provided it correctly meets all of the applicable GCR specifications. The 10% increase in minimum weight does apply to such cars.

B. Weight Calculations

Where there is a percentage addition as well as a specific weight addition, the percentage is added to the base weight before the specific weight addition. Examples:

1. The minimum weight for a turbocharged 2.5 liter AWD car in X Prepared is:

   1.4 X 2.5 = 3.5 X 250 = 875 + 1200 = 2075 lbs total

2. The minimum weight for a C Prepared car of 302 cubic inches, prepared to 17.11 allowances, with 12” wide wheels is:

   2700 lbs X 1.10 = 2970 lbs + 50 lbs = 3020 lbs total

C. Data acquisition/recording systems are permitted.

D. Except where there are specific requirements in these rules, any safe line for fuel, hydraulic fluids, oil, water or breather is allowed.

E. Ballast may be added to all cars as required, to meet minimum weight, provided it is securely mounted within the bodywork and serves no other purpose. Ballast plates may be installed beneath the floor pan, so long as they do not protrude beyond its edges.

F. All cars may have towing eyes, hooks, or straps, which do not dangerously protrude from the bodywork.

G. Removal of or modification to heating, ventilation, air conditioning, washer/ wiper, audio, security, communication, and convenience systems is allowed, provided the modification does not serve another purpose (e.g. an air conditioning compressor may not be modified to serve as a supercharger).

17.12 SAFETY

A. Roll Bars/Roll Cages (Aluminum is not an allowed material.)

1. All open Prepared Category vehicles shall have at a minimum a roll bar complying with Appendix C.

2. It is recommended that all cars be equipped with a roll cage meeting the requirements of the GCR. Compliance with this requirement supersedes the need to comply with 17.12.A.1.

3. Roll bars and cages may either be bolted or welded to the vehicle.

B. At a minimum all vehicles will be equipped with driver restraints meeting Solo Safety requirements. It is highly recommended that all cars with roll bars/roll cages be equipped with driver restraints meeting the requirements of the GCR.

C. A scattershield or explosion-proof bell housing complying with the GCR is recommended.

D. Fire extinguishers or fire systems are permitted.

18. MODIFIED CATEGORY

Sports cars and sedans altered in excess of Prepared Category, sports racing and two-seat specials, Formula cars, single-seat specials, dune buggies and kit cars. Active Automatic Braking Systems (ABS) and Traction Control Systems (TCS) are prohibited in Modified Classes B, C, and F. Traction Control Systems are prohibited in Modified Class A. Active Automatic Braking Systems (ABS) and Traction Control Systems are prohibited in Modified Classes D and E, except for the original system installed on the car, which may not be modified. Engine RPM limiting devices (rev limiters) are allowed in all Modified classes. Data acquisition systems are allowed in all Modified classes unless specifically prohibited by the applicable GCR section(s).

Modified Category cars are divided into classes based on potential Solo performance. They need not be licensed for or capable of street use. The Solo Rules shall take preference over the Club Racing GCR (General Competition Rules) concerning safety requirements for vehicles in this Category. Aerodynamic devices must be securely mounted on the entirely sprung part of the car and must not be moveable when the car is in motion. The use of any moving device (for example a fan, propeller, or turbine) or hinged wing to create downforce is prohibited. Movable side skirts are not permitted except where noted herein or in Appendix A, Modified Category.

If a formula car or sports racer is restricted by a GCR-stated exhaust length or vehicle length and therefore prohibited from installing the necessary exhaust devices to quiet the car to meet local dB limits, the following shall apply:

The vehicle exhaust system length may be extended to allow for the installation of noise suppression devices. This allowance is provided solely to reduce the exhaust noise emanating from these cars by allowing the installation of (a) noise limiting device(s) and in so doing keep the total exhaust length to a minimum for safety reasons. The installation and the noise limiting device(s) shall serve no other purpose than that stated and *this allowance* only applies to an extension of the exhaust system, not the vehicle bodywork or frame.

Engine Classifications

A. Four-stroke cycle and two-stroke cycle, naturally aspirated, internal combustion engines will be classified on the basis of actual piston displacement.

B. Rotary Engines (Wankel): These units will be classified on the basis of a piston displacement equivalent to twice the volume determined by the difference between the maximum and minimum capacity of the working chamber, times the number of rotors.

C. Turbocharged or supercharged versions of the above engines will be classified on a basis of 1.4 times the computed displacement.

Aerodynamics

The area of a wing shall be computed by multiplying the width and depth of the wing assembly (top view) without regard to the curvature and/or inclination of the wing or number of elements. Any airfoil shadowed by another airfoil with more than six inches between them will have its own projected area added to the wing area calculation. Any diffuser-type aerodynamic device under the car which is used in downforce generation is not included in the wing area calculation. This specification supersedes 12.9 for these classes.

Tires

Any tire (including recaps) meeting the applicable portions of 3.3 is allowed.

Safety Rules

A. The following shall be required in all Modified Category vehicles:

1. Scattershields/Chain Guard - The installation of scattershields or explosion-proof bell housings shall be required on all cars where the failure of the clutch, flywheel, or torque converter could create a hazard to the driver or passengers. Chain drive cars shall be fitted with a protective case/shield to retain the chain in case of failure.

   The following material requirements apply to scattershields/explosion-proof bell housings:

   0.125 inch SAE 4130 alloy steel

   0.250 inch mild steel plate

   0.250 inch aluminum alloy

   NHRA or SFI approved flexible shields

2. Master Switch - All cars shall be equipped with a master switch easily accessible from outside the car. Spec Racer Fords shall be wired per RFSRII. The master switch shall be installed directly in either battery cable and shall cut all electrical circuits but not an on-board fire system, if so equipped. It shall be clearly marked by the international marking of a spark in a blue triangle and mounted in a standard location. OFF position shall be clearly indicated at the master switch location. The standard locations shall be as follows:

   a. FORMULA AND SPORTS RACING CARS — In proximity to the right-hand member of the roll bar, but in a location so that it cannot be operated accidentally. It can be mounted on a bracket welded to the inside of the upright member or mounted so that the operating lever or knob is outside of the body panel immediately inboard of the upright member.

   b. CLOSED SPORTS RACING CARS, PRODUCTION CARS, AND GT CARS - In front of the windshield on either the cowl or on top of the fender, but close enough to the windshield to

be accessible if the car is overturned. Alternatively, it may be mounted below the center of the rear window or on a bracket welded, clamped or bolted to the roll cage or dash, easily accessible through the open window. (Drilling of holes in roll cage to attach the bracket is prohibited.)

c. OPEN PRODUCTION and GT Cars - May exercise a choice among the above locations.

3. Driveshaft Hoop - RWD DM and EM vehicles shall have a driveshaft hoop capable of preventing the shaft from entering the driver's compartment or damaging any fluid or electrical lines in the event of joint or shaft breakage. All cars in competition using open driveshafts must have a retainer loop with 360 degrees of enclosure, 1/4" minimum thickness and 2" wide, or 7/8" x 0.065" welded steel tubing, securely mounted and located so as to support and contain the driveshaft in event of U-joint failure. Vehicles that have a closed "tunnel" or other such structure which the driveshaft passes through such as the vehicle's frame, may be considered for an exemption from the SEB if that structure meets the criteria stated above.

NOTE: DM and EM vehicles are exempt from the scattershield, driveshaft hoop, and Master Switch requirements if they are using street DOT-approved tires.

4. The roll bar structure must meet the requirements of either Appendix C or Club Racing GCR 9.4 required by class rules. Roll cages are strongly recommended.

   "Specials" are required to have the roll bar extend at least two inches above the driver's helmet in the normal seated position and a head restraint keeping the driver's head from going under or behind the roll bar. It is strongly recommended that all cars adhere to this specification.

5. Firewalls and floors shall prevent the passage of flame and debris to the driver's compartment. For cars having fluid lines in a non-stock routing over the belly pan, the belly pan shall have drain holes to prevent the accumulation of fluids.

6. Ballast may be added to obtain minimum weight requirements. However, it must be attached and secured in a safe manner.

7. Club Racing GCR specific items and/or equipment not required in Modified Category are as follows:

   1) Fuel cells.

   2) Windscreens, side mirrors and tail/stop lights.

   3) Headlight covers, lenses, and bulbs.

   4) Log books.

   5) Fire retardant fire driver's suits.

   6) Homologation.

7) Fuel test ports.

8) Production based dune buggies need not meet door requirements.

9) Running lights.

10) The 180 degree vision rule is recommended.

11) Deformable and protective structures as defined by the FA rules.

12) On board fire systems.

13) Reverse gear in BM *and FM* vehicles.

14) A front impact attenuation device (GCR 9.4.5.G) is not required in Solo Modified Category vehicles.

15) Driver restraint system aging requirements (GCR 9.3.18.G) do not apply.

NOTE: If any conflict exists between the Club Racing GCR and the Solo Rules, the Solo Rules shall take precedence.

See Sections 3.8 and 8.3 for documentation requirements.

Refer to Appendix A for additional class-specific vehicle preparation rules.

Refer to Appendix F for past clarifications of these rules.

The following types of cars are assigned to the Modified Category:

18.1 MODIFIED PRODUCTION-BASED CARS

A. Eligibility

Classes DM and EM contain production-based cars which are permitted additional modifications beyond those allowed in Prepared classes CP through GP. Models must meet the requirements of Section 13 (first paragraph), be specifically listed in Appendix A, meet the specifications below, or be otherwise recognized by the SEB.

1. Kit Cars

Kit cars, which were originally designed, constructed, and licensable for street use, may participate in DM and EM if they are approved by the SEB. Members desiring approval of a particular kit car should provide the SEB with detailed information regarding the kit model and contact info, if available, for the OE manufacturer. For obsolete kit cars, the member will be expected to provide construction specifications, dimensions, and photographs for the SEB to examine and keep on file. The Club will evaluate each submitted kit model individually, and the evaluation will ensure that the specific model:

a) Follows current DM and EM allowances regarding minimum floor pan dimensions (see 18.1.B.1.j).

b) Has no unusually advantageous aerodynamic features.

c) Has no exceptionally low center of gravity.

d) Has no exceptionally high strength to weight ratio.

e) Has no other unique features that would upset the competitive balance in DM and EM.

f) Has independently-verifiable evidence of at least 10 examples which meet the approved specification produced. Extremely limited production sports racer-type efforts are discouraged.

Constructed examples of approved kits are subject to the following:

a) They will automatically take the Modified Tub weight penalty (see Appendix A).

b) They will have the same weight/displacement scales and weight bias penalties as production-based cars.

c) They will be allowed all the modifications that production-based cars are permitted,

d) They are subject to the same engine/transmission restrictions as production-based cars.

e) They must meet the same safety requirements as production-based cars.

A newly-added model is not eligible for the current year's Solo National Championships unless its listing was published no later than the July issue of the official SCCA publication.

The list of currently approved models is as follows:

(No models are currently listed.)

2. Clones

Clones/replicas of SCCA-recognized production cars are permitted to compete in DM and EM, provided they comply with the following requirements:

a) They are substantially similar to and recognizable as the 'original' manufactured vehicle on which they are based.

b) Their specifications do not violate any rule stated herein.

3. Other Models

The Panoz Roadster is eligible for competition in DM and EM as a modified production-based car.

4. Specifications

Weight and displacement specifications are as shown in Appendix A.

B. Bodywork

1. The shape of the body must remain recognizable as that of the manufacturer's make and model. The body must be made of a fire resistant material. Doors, hoods, trunk lids, sunroofs, hatch-

backs, etc. need not function as originally designed. Bumpers, grilles, lights, glass, and trim may be removed. Side mirrors and tail/stop lights are not required.

2. Firewalls and floors shall prevent the passage of flame and debris to the driver compartment. For cars having fluid lines in a non-stock routing over the belly pan, the belly pan shall have drain holes to prevent the accumulation of fluids.
3. The driver must be provided with clear and unobstructed access to the driver's compartment.
4. Interiors may be gutted. The driver's seat must be securely mounted. Steering and driver seating must be completely to the left or right of the vehicle longitudinal centerline. The seat must be mounted such that no part of the driver's body below the waist may cross the longitudinal centerline of the car.
5. Body panels may be altered and air ducting installed to accommodate the installation of the water radiator. If the radiator encroaches into the driver compartment, it must be separated from the driver by a metal bulkhead or enclosing container.
6. Hoods may be altered to allow for induction system changes without restriction. Such alterations shall serve no other purpose.
7. Stock bumpers may be retained, removed, or bumpers may be made of alternate materials. The bumper, if retained, will contribute its contour to the top view outline of the car for measurement purposes. Bumpers made of alternate materials shall retain the shape and size of the original.
8. Doors may be replaced with ones of alternate materials. No other part of the original outside bodywork between the original passenger compartment fore and aft bulkheads, such as rocker panels, floor pan, or frame, shall have reduced thickness or be replaced with lighter material.

C. Body and Frame

1. Stock Tub
   a. No part of the original outside bodywork between the original passenger compartment fore and aft bulkheads, such as rocker panels, floor pan, or frame, shall have reduced thickness or be replaced with lighter material.
   b. A bulkhead is defined as a transverse panel that is a separator or step between the driver's compartment and the engine or main luggage area.
   c. In cars where a rear luggage compartment is not totally closed off from the passenger compartment, the base of the floor pan step or base of a part-height panel that would limit rearward travel of the rearmost of seat bottoms is the rear bulkhead point. If there are built-in seat track catches or stops, they are assumed disabled for this definition of travel.

d. Heavier gauge material repairs or heavier replacement sections are all allowed as long as they closely resemble the original.

e. No removal of the interior sides of the pillars or tub to leave just an outer shell.

f. Interior storage compartment doors, luggage/trunk compartment panels, parcel shelves may be modified or removed.

g. Wheel wells and bulkheads are open to modification as long as the driver is protected from fire and debris.

h. Floor pan width must match or exceed that between the insides of the original rockers. Length must be matched between the original passenger compartment bulkhead locations. Floor pan is defined in 12.7. Longitudinal structure such as rockers may not cover or overlap the floor pan width. The full stock floor pan width or greater must be visible when viewed from directly above for at least the length of the door openings. The floor pan may only be cut for drivetrain/exhaust/tire/suspension clearance.

i. Tunnels and other vertical floor pan features as defined in 12.7 are included as part of the floor pan of a stock tub and shall be at least the original size. They can be longer, wider, and taller.

j. No car of any sort with a floor pan less than 37” wide for front-engine cars or less than 42” wide for mid- and rear-engine cars shall be allowed in DM or EM.

k. A Stock Tub car over 93” in wheelbase may change its wheelbase and remain a Stock Tub car if the stock rear bulkhead location and floor pan length are retained.

No weight adjustment.

2. Modified Tub

a. All attributes of a stock tub must be maintained in this category except as explicitly allowed below. There is a weight adjustment associated with a modified tub.

b. A modified tub is one that mainly achieves a lower CG and improved strength to weight ratio.

c. Lightweight replacement body panels, a thinned-down stock fiberglass body, or a lift-off lightweight shell attached to the main body structure are examples of a modified tub when done in the bulkhead-to-bulkhead region.

d. Vertical features above the bottom floor pan plane do not have to satisfy original minimum size or shape. Note that the original width and length of the floor pan still have to meet the original dimensions. Drivetrain tunnels and seat mounting platforms may be made smaller than stock, with a Modified Tub weight adjustment. A flat floor pan is legal.

e. Floor pan material and thickness are open under Modified Tub allowances.

f. *Rear passenger doors, if present, may be replaced with non-functional panels. Front and rear doors and door openings may be altered to accommodate compliant wheelbase changes.*

g. All other cars, Stock or Modified Tub, whose factory wheelbase are less than 93" may still change their wheelbase, but it must be done without violating the floor pan length as determined by both front and rear factory bulkhead locations.

h. All series of Lotus 7, 7A, Super 7, and their clone or kit forms such as Birkin, Westfield, Locost, are automatically classified as modified tubs. This also applies to the Cobra and its clones.

i. Tube frame cars are included in this tub category.

3. Materials (all tubs)

a. Ferrous (containing iron) metal must be used for all primary load-bearing structures of the car. The primary load bearing structure is the main tub or chassis and its connections to the suspension. No aluminum cages or roll bars are allowed. Any ferrous or aluminum alloy is permitted for suspension arms, location links, and uprights/spindles. Beryllium and beryllium alloys are not allowed anywhere on the car.

b. The exceptions to the above are parts of the donor production cars that were originally non-metal. In all cases, replacement of these parts or addition of more load bearing structure must be by metal. Lighter replacement sections may not be used between bulkheads in a stock tub without it becoming a modified tub.

c. Lightweight substitute materials such as carbon fiber are permitted only so long as they are clearly not load bearing in the primary structure or the suspension. For example: outer body panels in the central tub region must be attached in a flexible manner such as with Dzus fasteners if non-stock material composition or non-stock material thicknesses are to be used.

d. Cars that have been approved for DM and EM as clones do not have the freedom to use better strength per weight structural materials than those originally used in the corresponding places in the originals. The only exception is the use of high carbon or chromemoly steel in place of mild steel.

D. Drivetrain

1. Engines must be derived from production automobiles available in the US or elsewhere. Complete race engines derived from production automobile block designs such as the Pontiac Super Duty 4 and the Cosworth 16-valve series are allowed. Motorcycle, snowmobile, marine, or any other initially non-automotive design

is not allowed even if it was also made available in an automobile. Non-automotive engines are prohibited. 4-stroke automotive motors shall not be converted to 2-stroke.

2. Engine and/or drivetrain changes are permitted within the following limitations:
   a. Original front-engine design must remain a front-engine design, i.e., no part of the engine block or cylinder head may extend rearward of the midpoint of the wheelbase.
   b. Original rear- or mid-engine designs may be interchanged with each other, but no part of the engine block or cylinder head may extend forward of the midpoint of the wheelbase.
3. Non-automotive CVTs are prohibited. Automotive-based CVTs are only allowed with their matching factory engine.
4. Internal and external components of the engine, transmission, and rear differential are unrestricted. Any shifting mechanism or pattern is permitted. Driveshafts may be made of any material deemed safe. Supercharging and turbocharging are permitted without restriction but shall require the displacement specifics of Section 18.
5. For weight designations in EM, Mazda rotary engines are compared to the piston engines listed (i.e., 3.2L OHC vs. 4.5L OHV). 13B rotary engines should be equated to the 3.2L OHC engines. 13B forced-induction rotary engines (1308cc x 2 x 1.4 = 3662cc) and all 3-rotor engines shall be grouped with vehicles required to meet the stated 1800 lb. minimum weight.

E. Minimum Weights

Minimum weights for cars in DM and EM and all adjustments to these weights are shown in Appendix A.

F. Aerodynamic Aids

1. These classes are restricted downforce classes. No aerodynamic tunnels, wings, or sealing skirts may be added. No bargeboards, ramps, vanes, wickerbills, or other aerodynamic devices are allowed except as specified.
2. The hood, tub, roof, rear fenders, and rear deck are not permitted to be reshaped to achieve downforce. The front of the car may be reshaped to accommodate the construction of spoilers, air dams, and splitters, and may be widened to rear body width as specified in E.4.c below. Ramps joining the front fender flares to the splitter/spoiler/airdam assembly which are included as part of a SCCA-approved GT-1 front bodywork package are allowed.
3. Front Aero
   a. The standard O.E. or a non-standard front spoiler or air dam may be used. A non-standard front spoiler is not permitted to protrude forward beyond the overall outline of the car as

viewed from above, or aft of the forward most part of the front fender opening, and shall not be mounted more than four inches above the horizontal centerline of the front wheel hubs.

b. The spoiler may cover the normal grille opening at the front of the car. Cooling duct openings are permitted. If the front radiator is removed or relocated, no aerodynamic use of the unobstructed front radiator pathway may be made. The front spoiler may be attached to the original bodywork, or it may replace the bodywork it would otherwise cover.

c. The front spoiler may be no wider than the rear bodywork, measured as in E.4.c. below. The front spoiler may not function as a wing, and therefore must be installed such that air does not pass both over and underneath it. This may be accomplished by ensuring that the upper edge of the spoiler is in complete continuity with the bodywork above the spoiler. New bodywork may be added to close the gaps between the fenders, nose, and spoiler/splitter/airdam assembly on cars with open or irregular front bodywork such as the Ford Model T, MG TD, Morgan, and Lotus Seven. When these or similar vehicles use a full-width front spoiler, the car's spoiler/airdam is required to be vertical (between 80-100 degrees) for the lower 8" of its extent. The change in top view outline caused by these bodywork changes is allowed.

d. Front splitters are allowed but must be installed parallel to the ground (within +/- 3/16 inches fore to aft). Splitters may not be wider than, nor extend more than 6 inches forward of the top-view outline of the car.

4. Rear spoilers

a. If a rear spoiler is used, it shall be mounted to the rear hatch, deck, or trunk lid, and mount no further forward than the base of the rear window. The spoiler extension for the entire spoiler is set by one measurement at the lateral midpoint of the car. At that point, the spoiler may not extend more than 10" from the attachment point out to the outer or free edge. This sets the maximum height above ground at all other locations on the spoiler. The result may be a flat topped rather than contoured spoiler. Alternatively, the spoiler may be mounted at the rear of the roof, or to the rear hatch lid at or near the top of the hatch; in such a configuration the spoiler may extend no more than 7.5" from the original bodywork, measured as described above. The spoiler angle of attack is free. The rear spoiler is measured from leading, attached edge to trailing or outermost, free edge. Its measurement is independent of its angle of attack.

b. The spoiler may not be wider than the rear bodywork, measured as the maximum distance between the outside edges of the wheel well openings or fender flares at axle height.

c. Aerodynamic aids permitted in 18.1.E shall not function as wings. Therefore, the spoiler may not overhang the bodywork such that air passes both over and underneath it. If the rear spoiler overhangs the side of the car, the lower edge of the spoiler shall be supported by bodywork that will prevent air from passing underneath the spoiler. This may be accomplished by extending the spoiler to join the bodywork or wheel opening/fender flare beneath the overhang.

5. Diffusers are allowed at the rear of the car only and shall have no more than 25 inches front to back of expanding chamber. Vanes or strakes are allowed inside the diffuser. A diffuser is defined as an expanding chamber between the vehicle and the ground for the purpose of accelerating air ahead of it to develop low pressure. The diffuser may protrude rearward beyond the top view outline of the car. Closed undersides or belly pans (lower surface) are permitted. The entire length of the underbody may be closed off to permit proper airflow to a rear diffuser or to smooth the underside of the car. The belly pan shall be flat within 1 inch total deviation. No tunnels or other underbody aerodynamic features are permitted. Chassis rake is free. Additionally, no side skirt or body side, etc., may extend more than 1 cm below this lower surface anywhere on the car to the rear of the front axle unless specifically permitted by these rules. Diffuser sideplates and strakes may extend below the diffuser surface as long they do not attain a definite seal with the ground on level ground.
6. If the factory production car was supplied with tunnels or wings, they may remain, but they must be blocked in a safe manner to prevent them from functioning to provide downforce. For example, foam or sheet metal may be firmly attached in tunnels or on wings to ruin their shape or to stop airflow.
7. The use of front and rear spoiler endplates is allowed. Endplate area shall not exceed spoiler height squared. A roof spoiler up to the maximum of 7.5” is allowed an area of up to 16 square inches for each endplate; a trunk spoiler up to the maximum of 10” is allowed up to 100 square inches for each endplate. Side plates do not have to be square or rectangular; the side profile shape is open. If end plates are to be used with the front spoiler/air dam/splitter assembly, a maximum area of 36 square inches per end plate is allowed.

G. Brakes

The use of any type brakes, pads, and components are permitted (disc or drum). The location of brake components (inboard vs. outboard) may be changed from original. The original “emergency” or hand brake may be removed.

H. Tolerances

A tolerance of ±1/2 inch shall be used when measuring floor pan dimensions from the car's original specifications.

I. Other

1. At least 1/2 the width of each tire must be covered by the fenders, when viewed from the top of the fender perpendicular to the ground. No sharp edges are permitted.
2. Suspension systems and wheels are free.
3. The use of a windscreen is not required.
4. Roll bar requirements for cars competing in DM and EM are as specified in 3.3.2.

18.2 SPORTS RACERS

Closed wheel vehicles are referred to as Sports Racers and are assigned to Modified classes A, B, and C. AM vehicles do not have to comply with any Club Racing GCR, while BM and CM vehicles must comply with the current year GCR. The competitor must indicate on his entry form to which set of specifications that the car is prepared.

Vehicles that qualify as Sports Racers are those listed in the GCR SRCS, dune buggies, and production-based automobiles, whether or not from Appendix A.

Dune buggies and DM/EM cars are allowed in BM at Club Racing ASR, CSR, and DSR engine and weight rules as long as they do not exceed the DM/EM aero rule allowances and with the following noted specifics:

A. Tire covering shall be as noted in the DM/EM rules.

B. Minimum body width between front and rear tires does not have to extend to the mid plane of the rims.

C. Suspension does not have to be covered when observed from above.

D. The BM minimum wheelbase of 80" is not required.

Any dune buggy, production, or non-production street car meeting all GCR SRCS rule requirements may alternately run in BM with full BM Solo Rules aero allowances.

The following applies to all Sports Racers in AM, BM, or CM:

1. Minimum track is 42 inches (front and rear).
2. Minimum wheel diameter is 10 inches. No maximum wheel diameter. No minimum rim width. Maximum rim width is 15 inches.
3. All four wheels are sprung from the chassis.
4. Wing area shall be calculated as described herein.

18.3 FORMULA CARS

Single-seat, open-wheeled cars are referred to as Formula cars and are assigned to B, C, and F Modified classes. B Modified cars must comply with the current year Club Racing GCR (except as noted by the Solo Rules, including Appendix A) and the competitor must indicate on his entry form to which set of specifications the vehicle was prepared. C and F Modified cars must conform to the current year Club Racing GCR, except Solo Vee and Formula 440/500 vehicles which are allowed the additional modifications and exceptions listed in Appendix A. Formula cars not conforming to a GCR eligible for B, C, or F Modified are considered Specials. The competitor must have the referenced GCR in his possession during the event. Exceptions to the GCR are as follows:

A. Wing area shall be computed as described herein.

B. Front impact attenuation device (GCR 9.4.5.G) does not apply.

18.4 SPECIALS

Cars not otherwise classified which meet the following minimum specifications are considered as Specials and are assigned to A Modified (AM).

A. Bodywork

1. Must be made of metal, fiberglass or other suitable fire resistant materials. The sides, front and back of the cockpit area must be at least as high as the driver's waist.
2. Full and unobstructed access to the driver's seat must be provided.
3. Firewall and floor shall prevent the passage of flame and debris to the driver's compartment. Belly pans shall be vented to prevent the accumulation of liquids.
4. Fenders are optional and design of same is free. Sharp edges are not allowed.
5. Minimum of one seat, capable of supporting the driver in an upright or semi-reclining position is required. Location of the driver's seat is unrestricted.

B. Chassis

1. May be of any construction deemed safe.
2. Minimum wheelbase is 72 inches.
3. Minimum track is 42 inches (front & rear).
4. Minimum wheel diameter is 10 inches.
5. All four wheels will be sprung from the chassis.
6. Brakes must conform to those specifications listed in 3.3.3.B.10. The brakes shall be a dual system, arranged in a manner to provide braking for at least two wheels in the event of failure in part of the system.

7. A roll bar conforming to Appendix C is required.

Exceptions: The bar must extend at least two inches (2”) above the driver’s helmet in the normal seated position and a head restraint keeping the driver’s head from going under or behind the roll bar is required.

8. Five-, six-, or seven-point driver restraint systems are required per Club Racing GCR 9.3.18.
9. Vehicles shall have a Master Cutoff switch complying with Club Racing GCR 9.3.33.
10. Aerodynamic devices may not have an overall width greater than 75”.
11. No aerodynamic device may extend more than 66” above the ground.
12. The total area of all wings shall not exceed 20 sq ft (1.858 sq m), computed as previously described in Section 18.0, Modified Category, “Aerodynamics.”
13. Movable side skirts are allowed.

18.5 FORMULA SAE (FSAE)

A. Vehicles constructed to any single year’s Formula SAE rules (1985-on) to include all FSAE safety items for that single year are eligible to run in SCCA Solo events. The FSAE rulebook year shall be specified on the entry form and those rules shall be provided by the entrant for viewing.

B. Non-students may build, own, and compete in FSAE vehicles.

C. In addition to FSAE safety rules, SCCA safety rules (per the applicable portions of Sections 3.3 and 18.4.A) shall be met. Passing vehicle inspection at a prior SAE event is not required.

D. Transponder and FSAE lettering shall not be required.

E. These vehicles are assigned to A Modified, subgroup FSAE, and must also meet the following minimum criteria:

1. Current year FSAE restrictor plate and engine displacement rules. Restrictor requirements are as follows:
   a) Gasoline fuel — 20.0 mm (0.7874 inch) intake restrictor
   b) E-85 fuel — 19.0 mm (0.7480 inch) intake restrictor
   c) M-85 fuel — 18.0 mm (0.7087 inch) intake restrictor
2. Current year FSAE aerodynamic rules

F. FSAE vehicles may not mix and match specifications from multiple years except as specified above.