

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 *may compete in Modified Classes A through F (AM through FM). Rules for Anti-lock Braking Systems (ABS), Traction Control Systems (TCS) and Stability Control Systems (SCS) in CM and FM are as dictated for those cars by the Club Racing General Competition Rules (GCR). ABS is explicitly prohibited in all other Modified classes with the exception of AM, where ABS specifically is allowed. RPM ramp rate limits, tuning of engine output using rpm based boost limits and similar systems that do not use wheel speed sensors, GPS, accelerometers, or other measures of car motion are excepted from limits on TCS and are allowed in classes AM, BM, DM and EM. The use of full TCS and SCS is permitted in DM and EM, with weight additions as shown in Appendix A, but is prohibited in AM and BM. Additionally, in DM and EM, a Stock Tub car (18.1.C.1) may use ABS, TCS, and/or SCS with no weight adjustment as long as it was a standard option on the car and the original unmodified control unit and programming are used. Engine RPM limiting devices (rev limiters) and cooling fans are allowed in all Modified classes. Data acquisition systems are allowed in all Modified classes unless specifically prohibited by the applicable 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 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 (e.g., a fan, propeller, 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.

18.0.A. SOUND CONTROL MODIFICATIONS

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.

18.0.B. ENGINE CLASSIFICATIONS

1. Four-stroke cycle and two-stroke cycle, naturally aspirated, internal combustion engines will be classified on the basis of actual piston displacement.
2. 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.
3. Turbocharged or supercharged versions of the above engines will be classified on a basis of 1.4 times the computed displacement.

18.0.C. 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 incli-

18. MODIFIED

nation 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 Section 12, Wing Area Computation, for these classes.

18.0.D. TIRES

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

18.0.E. SAFETY REQUIREMENTS

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:

- 1/8 inch (0.125"; 3.18mm) SAE 4130 alloy steel
 - 1/4 inch (0.250"; 6.35mm) mild steel plate
 - 1/4 inch (0.250"; 6.35mm) aluminum alloy
 - SFI or NHRA approved flexible shields
2. Master Switch: All cars shall be equipped with a master switch easily accessible from outside the car. Club Racing Spec Racer Ford vehicles 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° of enclosure, 1/4 inch (0.250"; 6.35 mm) minimum thickness and 2.0" (50.8 mm) wide, or 7/8 inch (0.875") x 0.065" (22.23 mm x 1.65 mm) 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 DOT-approved tires.

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

Specials are required to have the roll bar extend at least 2” (50.8 mm) 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-standard 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:
 - a. Fuel cells.
 - b. Windscreens, side mirrors and tail/stop lights.
 - c. Headlight covers, lenses, and bulbs.
 - d. Log books.
 - e. Fire retardant driver’s suits.
 - f. Homologation.
 - g. Fuel test ports.
 - h. Production-based dune buggies need not meet door requirements.
 - i. Running lights.
 - j. Deformable structures as defined by the GCR Formula Atlantic rules.
 - k. On-board fire systems.
 - l. Reverse gear in BM and FM vehicles.
- m. A front impact attenuation device (GCR Section 9.4.5.G) is not required in Solo® Modified Category vehicles.
- n. Driver restraint system aging requirements (GCR Section 9.3.19) do not apply.

The 180° vision rule is recommended.

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 8.3.1 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

18. MODIFIED

Modified classes D (DM) and E (EM) contain production-based cars which are permitted additional modifications beyond those allowed in Prepared classes CP through FP. 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 SCCA® 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 Section 18.1.C.1).
- 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:

- g. They will automatically take the Modified Tub weight penalty (see Appendix A).
- h. They will have the same weight-displacement scales and weight bias penalties as production-based cars.
- i. They will be allowed all, *but no more than*, the modifications that production-based cars are permitted, *with the exception that minimum width for all kit cars shall be no less than 65" (165.1 cm) as measured at the narrower end of the car at the tire outer sidewalls with a minimum 14 psi of tire pressure.*
- j. They are subject to the same engine and transmission restrictions as production-based cars.
- k. They must meet the same safety requirements as production-based cars.
- l. *They must compete with full standard bodywork and that body must remain recognizable as that of the approved make and model. For these purposes, the chassis of exoskeleton type cars is considered part of the bodywork.*
- m. *Functional wings are not permitted even if they are part of the original kit manufacturer's specification and/or components. If present, they must meet section 18.1.F.6.*

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:

- *Exomotive Exocet*
- Factory Five Racing 818 (S & R)

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.
- c. A clone shall not benefit from kit car manufacturer “running changes” unless those changes have also been submitted and approved.

3. Other Models

The Panoz Roadster and Porsche 550 Spyder are eligible for competition in DM and EM as a modified production-based car using the Modified Tub minimum weights.

4. Specifications

Weight and displacement specifications are as shown in Appendix A.

B. Bodywork

1. Respecting Section 18.1.F: Aerodynamic Aids, bodywork may be modified beyond the allowances of Section 17.2; however, the shape of the body must remain recognizable as that of the approved make and model. The body must be made of a fire resistant material. Doors, hoods, trunk lids, sunroofs, hatchbacks, 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-standard 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. Standard bumpers may be retained, removed, or replaced with 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 com-

18. MODIFIED

partment 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 Section 12, Floor Pan. Longitudinal structure such as rockers may not cover or overlap the floor pan width. The full standard 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 Section 12, Floor Pan, 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" (94.0 cm) wide for front-engine cars or less than 42" (106.7 cm) wide for mid- and rear-engine cars shall be allowed in DM or EM.
- k. A Stock Tub car over 93" (236.2 cm) 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 standard 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 standard 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" (236.2 cm) 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 Shelby Cobra and its clones.
- i. Tube frame cars are included in this tub category.

3. Materials (all tubs)

- a. Ferrous metal (containing iron) 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-standard material composition or non-standard 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

18. MODIFIED

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-automobile design is not allowed even if it was also made available in an automobile. Non-automobile engines are prohibited. 4-stroke automobile 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-automobile CVTs are prohibited. Automobile-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 18.0.B.3.
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 2-rotor engines ($1308\text{cc} \times 2 \times 1.4 = 3662\text{cc}$) and all 3-rotor engines shall be grouped with vehicles required to meet the stated 1800 lb. minimum weight.
6. Supercharging and turbocharging are permitted for all engines subject to the displacement factor of 18.B. In DM, such induction systems must have a restrictor on the inlet side of the turbo/supercharger. All inducted air must pass through this restrictor which must be constructed of metallic material. The minimum orifice (choke) of the restrictor shall be no greater than 33 mm (1.3"). The restrictor passage may be shaped fore and aft of the choke region. The restrictor choke region must be made of one piece without moving parts.

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 herein or as part of an SCCA®-approved GT-1 bodywork package for the specific make and model.
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 Section 18.1.E.3.c below. Ramps joining the front fender flares to the splitter/spoiler/air-

dam assembly which are included as part of a SCCA®-approved GT-1 front bodywork package are allowed.

3. Front Aero

- a. The standard OE 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 4.0" (101.6 mm) 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 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. The total fore-to-aft curvature or deviation of the rear spoiler, measured at the trailing edge, shall not exceed 10.0" (254.0 mm) as viewed from above. 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® 7. When these or similar vehicles use a full-width front spoiler, the car's spoiler/airdam is required to be vertical (between 80-100°) for the lower 8.0" (20.3 cm) 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 $\pm 1.0"$ (± 25.4 mm) fore to aft. Splitters may not be wider than, nor extend more than, 6.0" (15.2 cm) forward of the top-view outline of the car. The splitter must be a single plane with the top and bottom surfaces parallel, with an overall height of 1.0" (24.5 mm) or less. The leading edge of the splitter may be rounded (the radius area may extend backwards no more than the splitter thickness). The bottom of the splitter may attach to the belly pan but is not required to do so.
 Splitter endplate mounting location may be at the outside lateral end or inboard of the outside lateral end of the splitter. Additional mounting plates or strakes may be added inboard of the endplates but these must be no larger than the endplates.
- e. A front splitter and its associated features shall not function as a diffuser.
- f. An OE splitter which does not conform to these requirements may be used unmodified on the original make and model.

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 10.0" (25.4 cm) 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" (19.1 cm) 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. The total fore-to-aft curvature or deviation of the rear spoiler, measured at the trailing edge, shall not exceed 10.0" (25.4 cm) as viewed from above.
 - c. Aerodynamic aids permitted in Section 18.1.F 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 25.0" (63.5 cm) 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 1.0" (25.4 mm) 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 1.0 cm (0.394") 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 a factory production car *or kit 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. Vanes, strakes, and/or endplates (elements) are permitted on front and rear spoilers. A minimum distance of 6.0" (152.4 mm) must separate adjacent elements. These do not have to be square or rectangular; the side profile shape is open. For each element, the total area may be no more than:
 - 56 sq. in. (362.9 cm²) for a roof spoiler;

- 100 sq. in. (645.16 cm²) for a trunk spoiler;
- 35 sq. in. (232.26 cm²) for a front splitter.

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 $\pm\frac{1}{2}$ ” (± 12.7 mm) shall be used when measuring floor pan dimensions from the car’s original specifications.

I. Other

1. At least $\frac{1}{2}$ 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 Section 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, BM, and CM). 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 80.0” (203.2 cm) 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 42.0” (106.68 cm) front and rear.
2. Minimum wheel diameter is 10”. No maximum wheel diameter. No minimum rim width. Maximum rim width is 15”.
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 Modified classes B (BM), C (CM), and F (FM). BM cars must comply with the current year Club Racing GCR (except as noted by the Solo® Rules

18. MODIFIED

including Appendix A) and the competitor must indicate on his entry form to which set of specifications the vehicle was prepared. CM and FM 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 the GCR eligible for BM, CM, or FM 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 Section 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 Modified class A (AM).

A. Bodywork

1. *Any bodywork used* must be made of metal, fiberglass, or other suitable fire resistant materials. *Body panels are not required except as specified in section 18.4.A.3.*
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 72.0" (182.88 cm).
3. Minimum track is 42.0" (106.68 cm) front & rear.
4. Minimum wheel diameter is 10".
5. All four wheels will be sprung from the chassis.
6. Brakes must conform to those specifications listed in Section 3.3.3.B.13. 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.
8. Five-, six-, or seven-point driver restraint systems are required per Club Racing GCR Section 9.3.19.
9. Vehicles shall have a Master Cutoff switch complying with Club Racing GCR Section 9.3.34.
10. Aerodynamic devices may not have an overall width greater than 75.0" (190.50 cm).
11. No aerodynamic device may extend more than 66.0" (167.64 cm) above the ground.
12. The total area of all wings shall not exceed 20 sq. ft. (129.03 cm²), computed as previously described in Section 18.0, Modified Category, "Aerodynamics."
13. Movable side skirts are allowed.

14. The sides, front, and back of the cockpit area must be at least as high as the driver's waist.

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. 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 FSAE event is not required.
- C. Transponder and FSAE lettering shall not be required.
- D. These vehicles are assigned to Supplemental Class FSAE, which may run as a subgroup of AM but shall be scored separately. An FSAE car may only compete directly in AM if it meets all AM requirements and specifications. FSAE cars must also meet the following minimum criteria:
Current year FSAE restrictor plate and engine displacement rules. Intake restrictor requirements are as follows:
 - 1. Gasoline fuel..... 20.0 mm (0.7874")
 - 2. E85 fuel..... 19.0 mm (0.7480")
 - 3. M85 fuel..... 18.0 mm (0.7087")
- E. FSAE vehicles may not mix and match specifications from multiple years except as specified above.

18.6 LEGENDS CARS AND DWARF CARS

Vehicles conforming to the US Legend Cars International (www.uslegend-cars.com) racing series specifications, with exceptions and requirements as noted in Appendix A, are eligible to compete in Modified class F (FM). (Bandolero and Thunder Roadster vehicles are not eligible for FM.)

Vehicles conforming to the Western States Dwarf Cars Association Specifications, with exceptions and requirements as noted in Appendix A, are eligible to compete in Modified class F (FM).



Alleggerita HLT

anthracite

16x7	17x8.5	18x8.5	18x10
17x7	18x7	18x9	18x11
17x7.5	18x7.5	18x9.5	18x12
17x8	18x8		

COLOURS

Special order finishes: green, red, blue, orange, matte graphite silver, matte bronze, white, black and gold. Delivery in approximately 60 days.



NEW



Hyper GT

star graphite

18x7	18x8	19x8.5	19x9.5
18x7.5	19x8	19x9	19x10



Ultraleggera

bright silver

Also available: matte graphite silver, matte bronze, white, gold or black

15x7	17x7.5	18x7	18x8
16x7	17x8	18x7.5	18x9
17x7			



Ultraleggera HLT

black

19x8	19x10	20x8.5	20x11
19x8.5	19x11	20x9	20x12
19x9	19x12	20x10	

COLOURS

Special order finishes: gold, red, white, matte graphite silver matte bronze and matte silver. Delivery in approximately 60 days.