

# 2010 NORTHWEST REGION SCCA GT AMERICA RULES

The following rules are intended to allow competitors to compete in races at a reasonable cost. These rules shall govern all of the events, and by participating in an event, the competitor is deemed to have complied with these rules. No implied or express warranty of safety shall result from publications of, or compliance with, these rules and/or regulations. They are intended as a guide for the conduct of the competition and are in no way a guarantee against injury or death to a participant, spectator or official.

## NOTICE

Any equipment which does not conform to specifications or tolerances contained in these rules must have prior approval from the GT America Series administrator, which must be submitted, in writing, for consideration 30 days prior to the date of competition. It is the intention of the class not to approve any modifications that would increase the cost of competition. The GT America name, logo and/or rules cannot be used, duplicated or reproduced without prior authorization of the GT America administrator.

## SPECIFIC CAR RULES

### 1. MODELS

1995-2002 Five Star Composite Body only!	
Pontiac-Gran Prix	part #324-122
Olds-Cutlass	part #714-122
Ford Taurus	part #554-122
Chevy-Monte Carlo	part #624-122
Chevy-Monte Carlo	part #634-122
Dodge-	TBD

- A. Said components will be utilized in as-produced, unmodified form and must retain all manufacturer and GTA identifying markings.

### 2. CAR BODIES & DIMENSIONS

- A. All cars will be required to install mandated body components to meet GTA template and body specification requirements. Patterns of templates as utilized for actual technical inspection are available to competitors from Five Star Fabricating. Presentation of stock appearing, very professionally finished racing stock cars is a primary objective of GTA. Overall workmanship and appearance shall be a determining factor as to whether a car shall be approved by GTA for competition.
- B. All cars competing in a race event must have a complete, painted or gel coat body to start the event.
- C. Absolutely no additional holes, vents, modifications, etc., will be permitted on mandated body panels except as provided for herein or by subsequent Technical Bulletins.
- D. Pop-rivets used to assemble body components must be countersunk, covered and painted. It is recommended that flat head socket tapered screws be utilized in place of pop-rivets. These screws must be countersunk and painted. A 10-24 screw will interchange with a 3/16" pop-rivet

- E. Body wheel openings should be a minimum of 29 inches measured horizontally at the bottom edge of the wheel opening and checked with a template. Front bodywork at wheel opening will be a maximum width of 76 inches. Template, as utilized by GTA Tech Crews, can be obtained from Five Star Fabricating. Otherwise, all wheel openings must remain as-produced and will be checked by a template. No wheel opening cutting or enlarging is permitted.
- F. Rocker panels shall remain as produced and no cut-cuts or openings for jack-points are permitted. It is permitted to mark jacking point on rocker panel with a 2" arrow. Minimum ground clearance of rocker panel is 4.0 inches. Minimum ground clearance of front air dam is 3.5 inches measured without driver.
- G. Rocker panels shall be bolted to 1/8"x 2" wide steel strap, welded to main frame rails the length of door. Use 1/4" bolts and fender washers through rocker panels. (Recommended)
- H. Bottom side of car must not be "belly panned" or flush paneled. Panning may not extend rearward of leading edge of radiator or 44.5" from center section. Full inner fender panels are permitted, subject to workmanship quality approval. No fixed or moveable air-directing devices are permitted underneath or inside the car. **Maximum front bumper/body width is 75 inches.**
- I. Installation of air ducts to direct air into the cockpit is permitted. Duct size shall not exceed nine (9) inches in height, ten (10) inches in length. Duct is to be neatly fabricated from clear plastic and securely affixed to rear side window(s). Duct must be clear and a screen to prevent debris from entering the cockpit should be installed. Only tech-director approved flexible hose air-ducting devices will be permitted in the passenger/driver window areas. (See Illus. A.1.)
- J. Hood must have a minimum of four (4) positive locating pins on leading edge of hood and must be hinged (universal hinge available from Five Star Fabricating, Part No. 003-33H). Cowl opening shall be centered upon rear edge of hood with a maximum opening of 2.0" center (tapering to 2.5" at ends) x 16.0 inches. Additional locating pins not permitted on hood assembly.
- K. Rear spoiler is available from Five Star Fabrication for each car model set at  $55^{\circ} \pm 5^{\circ}$  for pre-2000 model bodies. *An optional 70-degree spoiler is allowed for all pre-2000 model cars for use in 2001. 2000-2001 current bodies must use a spoiler of 70-degrees +/-5 degrees.* Spoilers must be a minimum of .063 inch thickness aluminum and will vary in overall height according to make and model of the body. Spoilers may be painted any color(s) but shall be free of painted signs and/or decals on either side.\*\*
  - \*\* Rear spoiler dimension shall not exceed 59.0 inches in width and 5.0 inches in height or 295 square inches total area. Any driver that has **not** won a GTA race is allowed to extend the height of the rear spoiler by 2 inches. The length must remain at 59.0 inches. Only clear Lexan or clear plastic is allowed for use in extending the rear spoiler height. The rear-deck lid of body must be removable and securable with dzustype fasteners or Hood type pins. Once the competitor has won a GTA race the rear spoiler height must be reduced to a maximum of 5.0 inches in height.
- L. A full, stock-dimension molded front windshield is mandatory and must be constructed with 1/4" Lexan. Three (3) internal windshield support braces should be spaced on at

least 6 inch centers and roughly centered upon windshield, constructed of minimum 1.0 inch by 1/8 inch thickness material. Windshield must be secured to body by bolts and/or rivets to prevent windshield from popping out under internal pressure such as spin, etc. Border area of windshield must be trimmed in black and mounting rivets/screws must be painted black. Molded front windshields are available from Five Star Fabricating. (GT-1 1/4" thickness)

- M. A full, stock dimension molded "rear glass" constructed of minimum .093-inch thickness Lexan is mandatory. It must be held securely in place by minimum of two (2) 1 1/2 inch wide external straps as well as bolts and/or rivets mounting the "glass" to the rear body work around the parameter. Back "glass" must be securely braced internally to prevent significant bowing or distortion under racing conditions. Rear window border must be painted black. Molded rear windows are available from Five Star Fabricating.
- N. Side windows (driver and passenger side) must remain as produced in dimensions. Models with rear quarter or "opera" type windows must have stock opening covered with clear, securely mounted Lexan with minimum .093-inch thick Lexan.
- O. Front or rear "glass" must remain clear. No tinting is permitted.
- P. The GTA Series reserves: roof, windshield, doors, front fenders, rocker panels. These areas are reserved for placement of assigned car number, series sponsor and/or series-participating company decals. Any car displaying a decal or painted sign that is a direct competitor to a series participating sponsor will forfeit 10 percent of the car's winnings for each event it is found to be in violation. When a direct competitor to a participating sponsor becomes a primary or secondary car sponsor, displaying a logo or advertisement with a minimum of 96 square inches total may be done without penalty (each side of car). Placement of decal will be assigned by GTA. Failure to comply with decal placement assignment will subject an entrant to loss of all award monies, contingency monies and overall point fund awards (see Illus. A. 1.).
- Q. The space forward of the leading edge of the car number from the top of the door to and including the rocker panel, shall be reserved for companies participating with the GTA racing program.
- R. Rear quarter panels, hood, trunk deck and rear bumper and the "TV" panel areas are reserved for individual team/car sponsors.
- S. A detailed, professional-quality "paint" job is mandatory on all cars. Car base color and number color must be of high contrast to maximize legibility of number.
- T. Before a car can pass technical inspection and be permitted to participate in practice sessions, etc., the car must be clean, in good condition, with numbers affixed in finished form and all required sponsor decals in place.
- U. Officially-issued numbers must be centered on a 30 inch wide area on both doors, measured 30 inches from the rear door seam. Door numbers must be of a minimum of 20 inches high with a three (3) inch stroke. A minimum 30 inch high, three (3) inch stroke is required on the top of the car with the bottom of the number nearest the driver's side of the car (see Illus. A-1.). A small car number (approximately 8 inches high) shall be located on left front (drivers side) of all cars (air dam area or bumper) and on right-rear (passenger's side) of car (bumper cover).

- V. Silver or gold foil type or reflective number decals are not permitted. All cars are required to have a GTA-registered and assigned number. Number changes or alterations may be required at any time by GTA to avoid duplications.
- W. GTA reserves the right, in maintaining a positive image for the sport, to approve or disapprove any advertising, sponsorship, message or similar agreement in connection with any event of such judgments.
- X. Cars must be neat in appearance at all events. All cars must have complete bodies, fenders, hoods, grills and bumpers. Floors must: be complete and tunnels or air ducts are not allowed. No streamlining will be allowed, such as windshields. underpans, radiator grills or headlights. Radiator screens must fit stock radiator opening, as delivered, in front grill, with no modifications. Headlight decals and Taillight decals or the model's original taillights are required at all times. Cars without Taillight and/or Headlight decals will be fined \$75.00 per each missing decal. Except on oval races, functioning brake lights are required. A single centered LED brake light fitted below the rear spoiler is allowed in place of two brake lights.
- Y. Guideline Dimensions (inches) Appendix A
  - Roof Height 50" minimum
  - Tread Width 60.25 ± .25"
  - Wheelbase 105"± .5"
  - Rear Spoiler .063" aluminum, 5"x 59", angle 55°
  - 2000-2001 bodies must use 70 +/- degree angled spoiler . For pre-2000 models a 70 degree spoiler is an option
- Z. Identification - the manufacturer's name and model name must be painted in an accent color compared to the body color, and must be located on the front and window pillar of the body. Proper decals must be displayed.

### 3. CAR WEIGHT

Minimum weight is 2800 pounds with driver at race end.). Minimum pre-race and pre-qualifying weight is 2940 pounds with driver and full fuel (22 gallons) cell. Any added weight to the car must be bolted inside the chassis. Any added weight must be in block form, weighing no less than 5 lbs. All weight must be painted white and must be labeled with car number. Rear percentage weight may never exceed 50.6% with driver. Left side percentage weight may never exceed 53.5% without driver.

At PRO races cars will be weighed with driver and 22 gallons of fuel during, pre qualifying, and pre race inspection.

### 4. ENGINE REQUIREMENTS

- A. Ground clearance will be measured from the center of the crankshaft at the belt pulley. A minimum of 10 inches from the center of the crankshaft to the ground must be maintained at all times.
- B. Engine mounts must be re-enforced steel. No motor plates are allowed. Centerline of engine crankshaft shall be located upon centerline of entire chassis. No offset is permitted. Engine setback: Center line of Front spindle to be aligned with the most forward spark plug. Ford engine vehicles allowed a 1-inch setback. Chrysler/Dodge engine cars engine setback TBD.
- C. Engine displacement will be a minimum or 350.000 cubic inch to a maximum of 358.000 cubic inch. Engine displacement may be increased or decreased by boring or

stroking, providing the total displacement is not less than 350.000 cubic inch or more than 358.000 cubic inch. All engine blocks must be a product of the manufacturer of the make and model. No aftermarket or aluminum blocks are permitted. Compression ratio may not exceed 10.7:1 at any time (no gauge variance will be allowed). No modifications below 1/4" of the top of the valve seat. Minimum bore is 4.00 inch.

C-1 Dodge engines cannot be de-stroked from a 360 cu. inch base block. C-1: The only approved Dodge/Chrysler engine block: P/N P-50076552

- D. Pistons must be any forged flat top version and valve reliefs may be cut into pistons. No portions of the piston may protrude from the block. The minimum wall thickness of the piston pin must be .125 and must be made of steel. Piston must have two compression rings and one oil ring groove.
- E. Rods must be solid steel. No titanium, aluminum, stainless steel or composite rods are allowed. Rods will be tested by using a magnet.
- F. Oil pans - open.
- G. Chevrolet and Ford cylinder heads will be Dart II cast iron: G-1 Chevrolet part #11128 and/or #1115B for part #53028 or World Products 'Roush 200 head p/n 053040. G-3 Dodge/Chrysler #P4529994 (Mopar. Performance) Maximum vValve size will be 2.020" x 1.600". No titanium valves are allowed. The minimum combustion chamber allowed is 62 cc. Internal cylinder head chamber dimensions must remain identical to the cylinder heads original dimensions. Grinding for "cc" adjustments are allowable only in the cavity area. The cylinder heads original squish area is not to be modified from the original dimensions at any point in the cylinder head. No porting or polishing is allowed. No more than a three angle valve job with a bottom cut of 60° is permitted. A maximum of 1/4" from the head of the valve seat to the end of the 60° bottom cut is allowed. No grinding in the valve bowl area is permitted. No interior or exterior coatings are permitted. Valve stem size must be 11/32" and must remain as delivered from the manufacturer without modification. No pro-flow or any type of valve that steps down in diameter beyond the listed dimensions are allowed. Compression ratio may not exceed 10.7:1 (no variance will be allowed). Engine compression ration is designed to be 10.2:1. A 'testing' variance of 0.5:1 has been included in the maximum allowable compression ratio of 10.7:1.
- H. Valve covers - open.
- I. Intake manifolds: I-1 Chevrolet: Part number 2975 Edelbrock Victor Jr. I-2 Ford: part #2975 #2980 or #2981 for Ford. I-3 Dodge/Chrylser: Edelbrock Victor W-2 Part #2920.  
  
No modifications are allowed, (no porting, polishing or filling of ports with any material is allowed. No internal or external coatings or painting of any type is allowed.). Must be new style with port size (H 1.90" W 1.10"). Height from top of manifold mounting flange to bottom of port is no less than 1.0". Carburetor angle shall not exceed 3° on Chevy and 0° on Ford.
- J. Carburetor will be Holley 650 DBL pump part #425-4777\* or Holley 650 part #80541-1 untouched save for changing the jets. A maximum of a 1" spacer may be used between the intake manifold and the carburetor. Choke horn or tower may be removed. Blue printing of fuel circuitry is allowed. No porting, polishing or any other modifications allowed. GTA reserves the right to implement a carburetor spacer plate

to regulate horsepower and/or RPM (Dimension TBD). Spacer plates must not be modified in any manner. Part # 425-4777 this is the last year for this carburetor.

- K. Crankshaft must be made of steel or iron. The stroke may be increased or decreased. Crankshaft may be lightened and balanced. Lightweight, knife-edge, 180° pendulum-cut scalloped and/or undercut counterweight crankshafts are prohibited. Minimum (bare crank) allowable weight is 46 pounds. The stroke must be a minimum of 3.48 inches.
- L. Camshaft rules:
- L-1 1995-2000 (original rule) must be a flat tappet steel type. Camshaft must be driven as approved production engine. Maximum lift will be 0.600 measured at the valve with 0.00 clearance.
  - L-2 2001 Camshaft for Ford and Chevrolet engines may be either a Flat-tappet type as approved in L-1 or a Roller Cam is permitted with a maximum lift of .612 as measured at the valve with a 0.00 clearance.
  - L-3 2001 Camshaft rules for a Dodge/Chrysler engine: The Dodge/Chrysler engine cars **must use** a Roller Cam with a maximum lift of .612 as measured at the valve with 0.00 lash.
  - L-4 It is strongly suggested that engine builders use the following parts:  
  
Camshaft: Engle Cam part number RK-38 for all makes of engines.  
Phone number: 310-450-0806  
Chevrolet rockers: P/N 11542-16 from Crane.
- M. Valve lifters: See Camshaft rules.  
Re: Flat tappet lifters: No mushroom type lifters are permitted. No chilled iron lifters or hard faced overlay camshafts allowed. Lifter bore trueing is allowed up to .875 inch.
- N. Rocker arms may be any OEM steel or roller bearing type. No split shaft, shaft mounted or trunk lined rocker arm assemblies are permitted. Maximum rocker arm ratio of 1.6 to 1 will be allowed.
- O. Air cleaners are required at all times. The air filter housing must be centered on the carburetor. All air shall pass through the filter. No funnels, tubes, or any other device designed to control or direct the flow of air is permitted. Cowl openings are permitted at the rear of the hood and cannot exceed 2.5" deep at comers by 16" wide. The air filter assembly may not exceed 15" in diameter and the filter may not exceed a height of 4".
- P. Ignition system may be OEM or electronic. No computerized systems or magnetos are allowed. The distributor must mount in the stock location. No ignition components may be located on the driver side of the chassis. The ignition system must have a soft touch rev limit chip set at 7000 RPM. (No variable and/or adjustable ignition timing systems are allowed) The soft touch system must be enclosed and have no interruptions or breaks in the wires in route to the distributor. **All ignition wires** connecting the rev limiter, the ignition box and the coil wires **must be readily accessible** for inspection. If more than one ignition box is used each will be limited by a 7000 RPM rev limiter. No other wires may intersect or connect to those wires operating the ignition system save for the ignition switch(s).

- Q. Spark plugs - open.
- R. Alternators must be OEM type, belt driven, and are optional. One way wire alternators are permitted, and may be driven by differential or engine.
- S. Starters must be OEM location only. No reverse mounted starters.
- T. Battery must be located in a battery box and placed outside of the driver compartment. Master kill switch must be placed so it is accessible from the driver window.
- U. Oiling system may not exceed a three stage system. Cosworth, Cosworth style and Heiniker pumps are not allowed.
- V. Exhaust system is limited to the spec GTA exhaust system (Howe spec exhaust system required). **Exhaust systems maybe ceramic coated or painted.**

V-1 An optional Flow Master muffler is allowed. Call for the approved Flow Master part number.:

V-2 Howe Part numbers are as follows

Headers-Chevy H1105(1 3/4-1 7/8") or HI 1054(1 3/4-2.0")

Headers-Ford 351C H4105(1 7/8-2.0") or 302/351W H302GTA(1 5/8-2.0")

Elbow Kit #H21QO. Y pipe #H2021. 5" turn down #H2005

Muffler-H3024, H3039 or H3024A are all approved

Flow Master muffler must be mated to the approved Howe headers, collector and "Y" pipe. Call the series administrator or Tech official for the approved Flow Master muffler part number.

V-3 "Merge" type collectors are not allowed.

V-4 Dodge headers: TBD. Dodge headers must be mated to the approved Howe or Flowmaster muffler and the Howe "Y" pipe.

All mufflers can be used with 3" super trap on a 5" to 3" reducer in place of a 5" #H2005 turn down when sound restrictions apply (i.e. 105db or less). It is recommended that the 30 5' plates or less be used on a super trap. At all times it is the sole responsibility of the competitor to meet sound at each event

A "vortex cone" (very effective) maybe installed in the Howe system to reduce noise. **It is the responsibility of the competitor to meet any and all sound restrictions that may apply at a race event.** Call ahead the track or sanctioning body if you have any concerns.

## 5. COOLING SYSTEM

- A. Radiator must remain in stock location and maintain stock appearance. Radiator must be attached to an overflow system. Bottom of radiator must be a minimum of 41.5' measured from the bottom rail of the center (cage/cockpit) section. The top of the radiator may be laid back a maximum of no more than 2" from vertical.
- B. Engine cooling fan is open. No mechanical free spin or clutch type fans allowed.
- C. Water pumps must be OEM type. Water pump impellers may be altered for improved cooling. No reverse cooling system allowed. One-wire alternator/water pump assemblies are allowed.

## 6. TIRES

Goodyear Economy size 15x10. **Qualifying tires must be used for the race.** If the competitor changes tires after qualifying, the competitor forfeits the qualifying time and must start at the end of the race grid unless the Series Administrator and Series Tech Official approve the change of tire(s). The exception will be if weather (wet surface) changes the track conditions. Tires may be grooved for rain conditions. The competitor is responsible for the proper marking of tires prior to qualifying. Soaking or chemical treating of tires is prohibited. The GTA administrator prior to the event will decide upon the Goodyear tire compound number. GTA reserves the right to change the compound number type and size of the tire used to better suit the conditions (i.e. rain, excessive wear or tire stagger). GTA will mandate the proper "spec compound and/or size" for each individual event. All tires must be purchased directly from approved GT America, Inc. approved tire service companies. Purchase of tires from non GTA approved tire service companies could be grounds for disqualification from the event. GTA reserves the right to inspect a competitors tires and wheels at any time prior to, during or after the event.

## 7. RIMS

Steel 15 x 10; 5 on 5 centers with (5) inch backspacing. Rims must weigh a minimum of 20 lbs. All rims must be one-piece steel construction designed specifically for racing.

## 8. REAR AXLES & REAR ENDS

Ford 9" or Quick Change. No "rear drive" or modified driven Quick Change rear ends allowed. No independent rear suspension allowed. Spool or Detroit Locker only. Axle tubes must be made of steel. No more than 1.75' of positive or negative camber is allowed per wheel.

## 9. TRANSMISSIONS

Must have 4 forward gears and reverse gear. Manual shift linkage is required. No 5 speed, automatic or semi-automatic transmissions are allowed. Muncie. T-10. Super T-10 or Jerrico transmissions only. No sequential shift mechanisms.

## 10. CLUTCH

Limited to three steel discs and pressure plates with a minimum clutch diameter of 7". No carbon parts or carbon clutches allowed.

**11. SELL HOUSINGS** - Must be Quarter Master. Tilton or OEM.

**12. FLYWHEELS** - Must be made of billet steel. No flex plate allowed.

## 13. DRIVE SHAFTS'

Must be one piece and similar in design to OEM production type. Two circular steel brackets no less than 2 ¼" wide and ¼" thick must be placed around the drive shaft, attached to the cross member or floor of the car.

## 14. FUEL PUMPS

Mechanical in OEM location only. After market mechanical pumps are allowed.

## 15. FUEL CELLS

Mandatory. Required is a Fuel Safe #ASA PC122D; 22 gallons or ATL SU-122-F 22 gallons and must meet SCCA 200 rules of FIA / FT-3 or greater. Fuel cells must be located in the trunk compartment of the car. A firewall of sheet metal, no less than 22 gauge thickness must be placed between the trunk and the driver compartment. Must be located on the true centerline of the chassis. No offsetting of the fuel cell in the chassis

allowed. All bladders must display a production date. Any bladder ten (10) years or older will not be allowed. Fuel ceil must be a minimum of 11" above the ground.

## 16. FIRE SYSTEMS

Mandatory. Must be Halon 1211 and a minimum of a 5 pound bottle a 10-pound is HIGHLY recommended. The switch or cable for the fire system must be located within the reach of the driver.

## 17. FUEL

Must be pump gas or race gas (not to exceed 110 octane). No oxygen-bearing additive or additive of any kind may be introduced into the fuel supply and / or induction system, either at the fuel ceil or upstream in the system including, but not limited to, the air cleaner. **GT America reserves the right to specify a fuel for a given event or events. Fuel shall be per 2010 SCCA GCR for all SCCA Events**

## 18. BRAKES

Must be disc with iron rotors not to exceed 12 3/16" diameter and 1 3/8" width. Brake calipers will retail for less than \$500 (No discounts). A maximum of body opening of 4.5" x 10" on each side of the radiator opening is allowed for brake cooling. Must be a two master cylinder system. Driver adjustable brake bias is allowed. Willwood #260-3501, Stewart LC/SB, or Sierra DPI-2150 brake recirculators are allowed. It is strongly suggested that each car be fitted with the DPI-2170 Brake pressure ignition cut-off switch. The following calipers (or a lesser priced caliper from the manufacturer's listed below) may be used:

Outlaw 4000 Series	#170-1820
Sierra Grand National	#002-0450
Coleman Series 4	#565-100
Willwood Superlite III	#120-3070
AP	#SC300
Brake Man F4-tornado	#002-0187 and/or 002-0526

## 19. BRAKE PADS-open

## 20. POWER STEERING - open (may be driven off the differential)

## 21. SEATS/SEAT BELTS

Seats must be double layer (.090) thickness. Seat belts, designed for racing and shoulder harness restraint system with metal to metal fastening and quick release and of 3 inches in width is mandatory (no Y type shoulder harness). **Either a 5-point or 6-point belt system of a SFI 16.1 rating or higher is required and must meet current 2010 SCCA GCR specifications.**

## 22. SUSPENSION

A. Steering will be rack & pinion. Power assist is approved. A collapsible steering column is strongly recommended

B. Shocks and springs will be coil over type.

{ Shocks must retail (with no discount) for less than \$220.00 each.

{ No more than one shock per wheel is permitted.

{ Springs are open, but must be linear, non-progressive type.

C. Control arms must be made of steel. Strut arms and upper pivot shafts may be

aluminum.

- D. Hubs must be steel 5 on 5 centers only. Spindles must be heavy duty steel.
- E. Weight shifting devices of any kind are prohibited.
- F. Sway bars must be made of steel. Heim joints are allowed to be attached to the lower control arm. Driver adjustable sway bars not allowed.
- G. Linking system for the rear of the chassis may not exceed three locations and may not include a "torque-tube" of any design.

G-1 In addition, a panard bar or watts link must locate the rear axle.

### **23.CHASSIS/SAFETY CAGE**

- A. All cars competing in GTA are required to utilize a common front, rear and center section. This component comprises the entire mid-section of the frame structure, including complete rollcage, frame rails, door bars with steel plating, driver's compartment steel floorboard and driveshaft "loops." All GTA frames are manufactured for GTA by an independent contractor (HOWE) to HOWE specifications and GTA approval. Each unit manufactured carries a permanent serial number issued by GTA. This serial number must be visible for routine technical inspection. Any alterations, changes or modifications to the entire chassis/frame/cage without specific prior authorization by GTA, will be cause for expulsion from the GTA class and loss of the GTA serial number. Only GTA chassis #70294 GTA center section and HOWE front clip are approved, without modifications. (Must meet SCCA 2010 GCR GT Sect. 9.1.2.10 safety specifications.)

- B. A roof support bar, "windshield bar", per the 1999 HOWE midsection updates design is required. (Howe drawing Bar #10)

B-1 An "Irvan bar" (Howe drawing Bar #11) per the 1999 HOWE midsection updates design must **replace** the original diagonal support bar. All bars are to be 1.75-inch diameter, .095 wall thickness steel tubing welded into center section in specific location.

- B-2 Optional (highly suggested) updates as designated by the 1999 HOWE midsection updates include:

- Bar 1: Upper diagonal
- Bar 2: Shoulder bar w/bend
- Bar 3: Left vent bar w/bend
- Bar 4: Bolt on door plate (old style is a welded door plate)
- Bar 5: Left side tunnel plate
- Bar 6: Middle cross member
- Bar 8: Front corner brace
- Bar 9: Lower diagonal
- Bar 12: Upper roof support
- Bar 13: Lower roof support

- C. Main frame rails, front and rear "clip" sections may not be pierced, drilled or otherwise altered for the purpose of reducing weight. Holes may be drilled to attach components and brackets only.

- D. Front "clip" main rails must be minimum 2"X 3" structural steel of minimum .083 wall thickness. This section (See Illus, B.2) must be mounted so that the section's main rails are parallel with the center section main frame rails and the true centerline axis of the car. Front clip rails shall extend a minimum of 46.0 inches from center section structure and be identical in overall length. Front spindle centerline should be 24.0 inches forward of the center section structure. Any bolted or welded brackets/braces can be added to the center section and front clip only with the written permission from the GTA Administrator.
- E. Rear "clip" main rails must be minimum 2"X 3" structural steel of minimum .083inch wall thickness. This section (See Illus. B.2) must be mounted so the section's main rails are parallel with the center section main frame rails and the true centerline axis of the car. Rear clip main rails shall extend minimum of 66.0-inches from center section structure and be identical in overall length. Rear axle centerline should be located 29.0 inches rearward of the center structure. **NOTE:** Rear clip section frame rails is limited to under-axle 3 link type as manufactured by: Howe (under chassis type). Lower rear clip rails must be in line (the height from the ground) with the main center cage section.
- F. Minimum ground clearance of all main frame rails shall be 4.0 inches. Minimum ground clearance of rear jack post shall be 8.0 inches.
- G. Structure supplementing the rear "clip" sections, such as tubing-constructed front "hoop," x-members and various structure triangulating suspension component mounting points, etc., must be a minimum 1.75-inch diameter, .095-inch wall thickness steel tubing (See Illus. B.1). All such structure, including entrant fabricated rear "clips," will be subject to approval by GTA and welded to the center section to form a secure overall frame structure, produced to the highest professional standard.
- H. All **ballast** weight must be mounted inboard of main (center section) frame rails. ballast weight may be attached to the outside of the rear "clip" section frame rails. Ballast may not be attached at any point outside of the front clip. All ballast weight will be securely attached to the main frame rails or major "X" brace structure, or rear clip section. It is strongly recommended that major ballast weight be encased in steel tubing. No lead shot or liquid-type ballast permitted. No ballast adjustment devices permitted on car. All ballast weights must be painted white with the car number displayed in red or black. Any car dropping or losing ballast on the track or on pit road shall be immediately black-flagged. Said car shall return to its assigned pit and replace or secure lost ballast and be inspected by a GTA Official before returning to competition.
- I. Independent front suspension with articulated upper and lower control arm(s) is mandatory.
- J. Absolutely no weight-transfer or suspension adjustment device that may be adjusted while the car is underway will be permitted in competition.
- K. Major steering components, including steering arms, tie rods, idlers, etc., must be fabricated from approved ferrous or non-ferrous alloys. All heim joints must be of aircraft quality (three-piece construction recommended). **A collapsible steering column is highly recommended.**
- L. Interior area of car must be completely enclosed with respect to engine compartment, track surface, tires and rear (fuel Cell) compartment. The area immediately beneath

the driver is part of the center section structure (.125-inch thickness steel) and must remain atop the 2"X 3" main frame rail. Vertical panels must be constructed of minimum 18-gauge (.047-inch) steel. Transmission tunnel must be a minimum 22-gauge (.029-inch) steel. Other interior panels may be constructed of aluminum, minimum .040-Inch thickness. Panel from top of transmission tunnel **at the shifter** can be no higher than eight (8.0) inches above the top of the 2"X 3" main frame rails (See Illus. 8.4).

A full-width dash is required on all cars. Five Star Fabricating manufactures a fiberglass dash, designed to fit the bottom of the window. A steel or Aluminum dash is strongly suggested over the standard composite dash. All bumpers (structure behind cover), front and rear, must be constructed of minimum 1.50 diameter .063-inch wall thickness steel tubing.

M. Only 5 Star Body Carbon-fiber components are approved for use in the roof/hood only.

## **24. COMPUTERS**

No computers will be allowed on race days. All wiring and or wiring harness for a system must be removed prior to technical inspection. All computer sensor wiring must be removed to within 1" of the sensor prior to practice and or race event.

## **25. GAUGES**

All instruments and gauges must be analog type. No digital gauges are allowed (Exception: digital lap timing instrument).

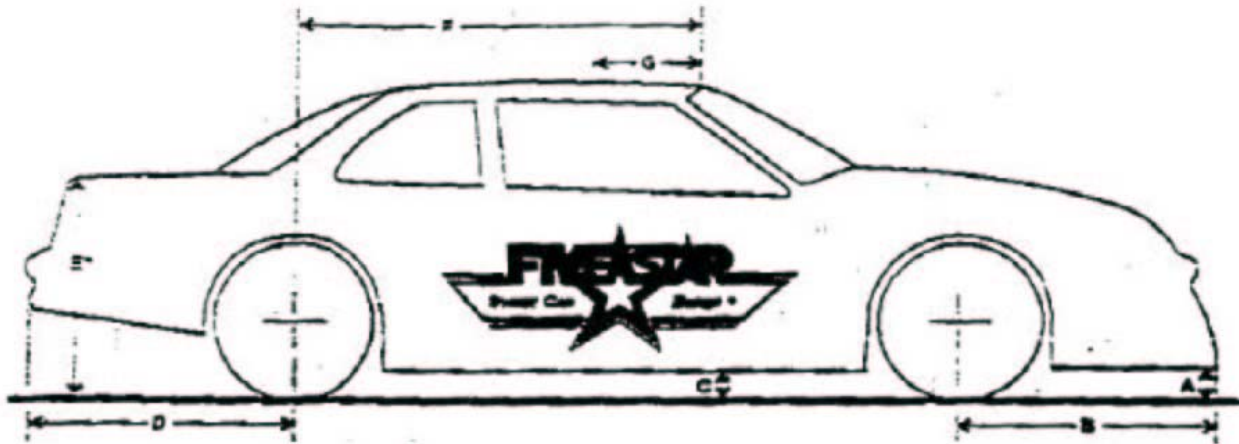
## **26. PENALTIES/FINES**

- A. Any component (such as a shock absorber, intake manifold, cylinder head, carburetor, etc) from any competitors car that is suspected of being illegal can be confiscated for further inspection. GTA reserves the right to exchange the confiscated part with an approved part of equal value, brand and type.
- B. Any body or chassis part found to be illegal will be confiscated and become the property of the GT America division. Any driveline component found to have an illegal part will be confiscated in its' entirety (engine, transmission, rear end. driveshaft, clutch & bell housing). Example: Non-approved engine part such as connecting rod, intake manifold, head, crankshaft, etc., will result in confiscation of the complete engine. Any confiscated part may be sold or discarded at the sole discretion of the GTA Series Administrator and/or Tech Official.
  - 1. First violation will be a minimum fine of \$250.00, loss of accrued points and forfeiture of any awards or prize money.
  - 2. Second violation will be a minimum fine of \$500.00 (additional to the \$250.00 fine), loss of accrued points and forfeiture of any awards or prize money.
  - 3. Third violation will be a minimum fine of \$1000.00 (additional to two prior fines), loss of accrued points and forfeiture of any awards or prize money.

In addition the GTA administrator has the right to exclude the driver and/or entrant from the driving events at his / her sole discretion.

# TEMPLATE INSTALLATION

## for ASA Flange-Fit Composite Bodies



	MONTE CARLO	1994 LUMINA	GRAND PRIX	OLDS CUTLASS	1995 TBIRD
GUIDELINE DIMENSIONS (INCHES)					
A NOSE CLEARANCE	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
B FRONT OVERHANG	45	43 3/4	42 1/4	42	44 3/8
C SIDE PANEL CLEARANCE	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2
D REAR OVERHANG	50 7/8	47 3/4	44 7/8	46 1/2	48
E QUARTER PANEL HEIGHT*	34 1/4	33 5/8	34 1/2	34 1/2	34 1/2
F LEADING EDGE OF ROOF (FROM CL OF REAR END)	61 1/2	63	63	63	61
G HIGHEST POINT OF ROOF (FROM WINDSHIELD)	26 5/8	26 1/4	26 3/4	26 5/8	27 1/4

\*NOTE: Measurements to be taken where quarter corner rear bumpercover and decklid meet.

\*\*Contact Five Star for dimensions.

## BODY MOUNTING TIPS

1. Put wheel offsets and tire stagers that will be used on the car.
2. Set chassis to proper height by placing 4" blocks under frame at front and rear to insure chassis stays in position.
3. Inflate tires to proper PSI.
4. Set toe to zero.
5. Make sure the rear end assembly is properly centered in the chassis.
6. For the purpose of mounting the body, a front-to-rear centerline must be established for reference point.
7. All body panels will be mounted relative to the centerline you have established using the ASA template designed for the body style being installed.
8. See Five Star Installation and Engineers Procedures on pages 58 to 68.
9. To maintain centerline template fit see Body Installation Tubing Kit photo on page 59 for recommended body bracing at nose, fenders and decklid area. NOTE: Additional support bracing is required to securely fasten body to the chassis.

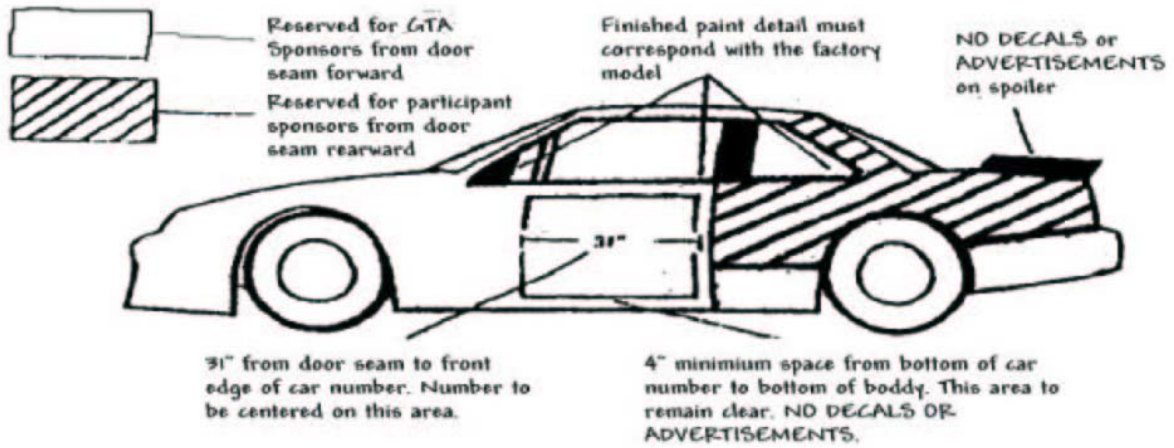


Illustration A.1 - Body Specifications

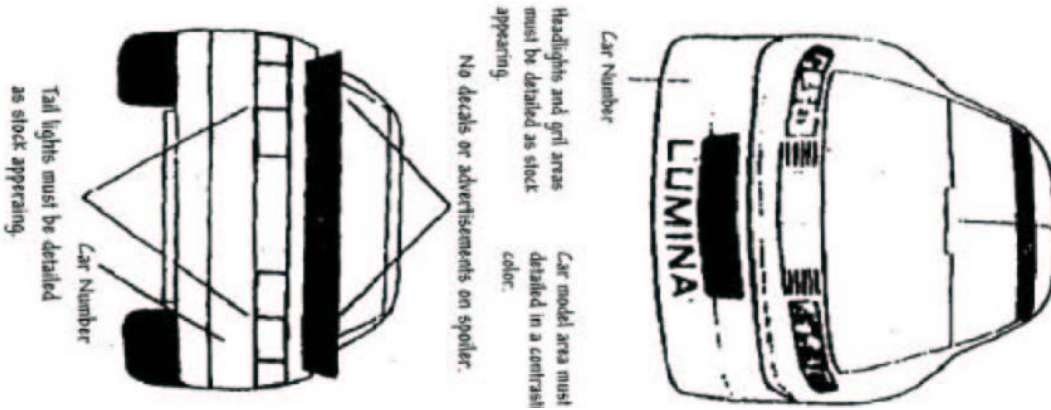


Illustration A.2 - Body Details

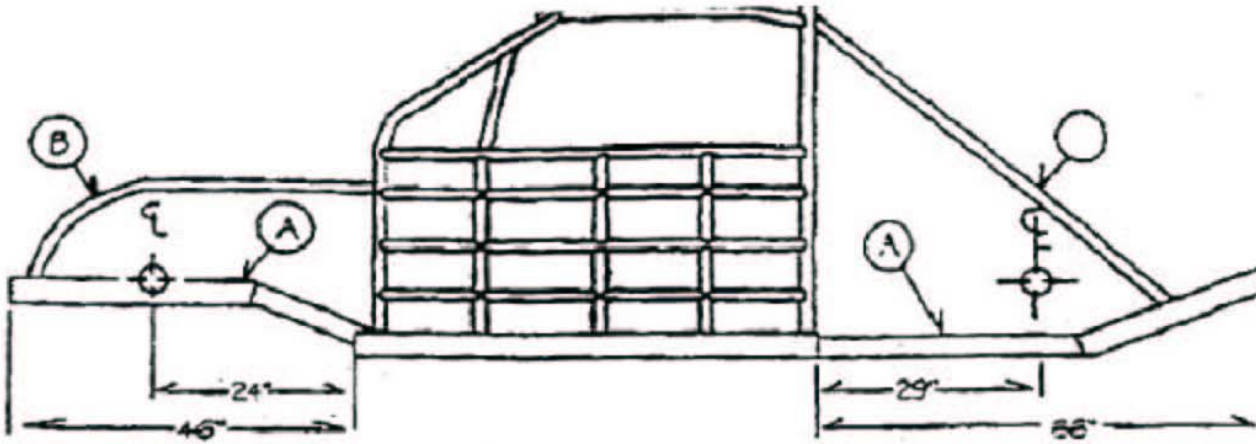


Illustration B.2 - Chassis Detail

Illustration B.3 - Chassis Detail

