

## CHASSIS RULES

### Ground Clearance

Ground Clearance must be sufficient to prevent any portion of the car (other than tires) from touching the ground during track events.

### Wheels and Tires

The wheels of the car must be 8 inches or more in diameter. The tires can be any size or type. Tire or wheel type, compound or size may not be changed after the static judging has begun. Tire warmers are not allowed. No traction enhancers may be applied to the tires after the static judging has begun.

### Suspension

The car must be equipped with a fully-operational suspension system with shock absorbers, front and rear, with usable wheel travel of at least 2 inch (1 inch jounce and 1 inch rebound with driver seated). The judges reserve the right to disqualify cars which do not represent a serious attempt at an operational suspension system or which demonstrate unsafe handling.

### Steering

The steering system must affect at least two wheels. The steering system must have positive steering stops which prevent the steering linkages from locking up (the inversion of a four-bar linkage at one of the pivots). The stops may be placed on the uprights or on the rack and must prevent the tires from contacting suspension, body, or frame members during the track events.

*Allowable steering free play will be limited to 15° total measured at the steering wheel.*

### Brakes

The car must be equipped with a brake system acting upon all four wheels and must be capable of providing four-wheel lockup on dry asphalt at any speed. <sup>1</sup>A single brake acting on a proven limited-slip differential is acceptable. The brake system must be protected with scatter shields from failure of the drivetrain or from minor collisions. The car must be equipped with a brake light clearly visible from the rear.

### Jacking Points

*A jacking point consisting of a 12" (minimum) length of 1" O.D. exposed tube perpendicular to the longitudinal centerline must be provided at the rear of the car. (A front jacking point will be required in 1994 pending definition.)*

<sup>1</sup> *An alternative method measuring speed and distance is being investigated and will be communicated to you by the host in mid-January*

## CRASH PROTECTION

### Roll-over Protection

The driver must be protected from contact with the ground in any roll-over attitude. This requires a Roll Bar near the driver and a forward Roll Hoop. The helmet of the tallest seated team member must be at least two inches below the surface defined by the Roll Bar and the front Roll Hoop.

The Roll Bar and Roll Hoop must be a continuous closed section attached securely to the primary structure. As a minimum, the driver's Roll Bar and Roll Hoop must be constructed of mild steel (e.g., 1020) tube with 1.00 inch O.D. and .093 inch nominal wall thickness, or alloy steel (e.g., 4130) with 1.00 inch O.D. and .062 inch nominal wall thickness. No composite materials are allowed for the driver Roll Bar or Roll Hoop. *1992 cars will be grandfathered in regards to roll-over protection.*

If any other material is used, the team must present documentation of material type (purchase receipt, shipping document or letter of donation); material properties; heat treatment. The team must also submit calculations demonstrating equivalence for energy dissipation, and ultimate and yield strengths in bending, buckling, and tension.

A 3/16 inch inspection hole must be drilled in a non-critical location of the roll bar. The roll bar must be braced in the fore or aft direction with braces on both sides attached within 6 inches of the top of the roll bar at an angle of at least 30 degrees from the vertical.

### Side Impact Protection

The driver must be protected from a side collision while seated in the normal driving position. Side impact must meet the requirements listed below.

**Tube Frames:** A frame member must connect the Roll Bar and the front Roll Hoop at a height between 200 and 350 mm above the ground with a 170 lb driver seated in the normal driving position. At least 2 diagonal frame members must connect the upper and lower frame members forward of the Roll Bar and rearward of the front Roll Hoop. For the purpose of this rule, a frame member should be 1.00 x .062 inch mild steel tubing or equivalent.

**Composite Monocoque:** The section properties of the sides of the vehicle must reflect impact considerations. Bodies or skins which are non structural are not adequate to meet the side impact rule. A team may submit a proposed section for approval. The approval process will be based upon the engineering judgement and experience of the technical judge. Submitted information should include: material type(s), cloth weights, resin type, fiber orientation, number or layers, core material, and layup technique.

**Metal Monocoque:** These structures must meet the same requirements as tube frames and composite monocoque unless exempted through technical review.

Any designs not meeting the Side Impact Protection Rule must be submitted to Chrysler for technical review no later than February 1, 1993. Vehicle designs which protect the driver to an equal or greater extent than required will be allowed, provided they have been judged as such in the technical review.

#### Frontal Impact Protection:

The drivers feet must be protected from frontal impact by a 150 mm crush zone as defined below. The planes defined below are normal to the fore/aft axis of the car.

- 1) The rearward plane of the crush zone will begin at the lowest point on the driver's heel or the forward surface of the master cylinder, whichever is further forward. *(For the 1994 competition, this will be measured with pedals in the furthest forward position.)*
- 2) The forward plane of the crush zone is the forward most plane in which:
  - a) The top of the frame member is at least 100 mm above the bottom of the bottom structural member, and
  - b) The distance between the outer surfaces of the structure is at least 200 mm.
- 3) Non-crushable contents (e.g., batteries) may be located between the forward and rearward planes, but their fore/aft thickness will be subtracted from the distance between the planes to determine the thickness of the crush zone.

#### SAFETY RULES

##### Safety Harnesses

The car must be equipped with a five or six-point safety harness system which is securely attached to the primary structure. The system must consist of lap harnesses (approximately 3 inches wide), shoulder straps (approximately 2 inches wide), and an anti-submarine strap (approximately 2 inches wide). The latch must be a metal to metal quick release. There shall be a single release common to all harnesses in the system. Harness to structure attaching hardware must not contact the driver.

The lap harness portion must pass around the pelvic area below the Anterior Superior Iliac Spines. Under no condition may the lap harnesses be worn over the area of the intestines or abdomen. The lap harnesses should come through the seat at the bottom of each side of the seat. The harness should not be routed over the sides of the seat. The lap harness attachments should be spaced no wider than 14 inches apart and must achieve a minimum wrap of the pelvic surface of 180 degrees. The seat must be rolled or grommeted or otherwise treated to prevent chafing of the harness.

The shoulder harness straps must be attached to a primary structural member of the car behind and below the driver's head and neck. The shoulder harness to structure attachment(s) must be located above a plane 40 degrees with the horizontal and passing through the shoulder to harness tangency points. The harness system must be worn as tight as possible at all times.

### Driver Safety Equipment

The following equipment must be worn at any time a driver is seated in the vehicle and the engine is running or being started.

- 1) A safety helmet with a Snell SA 85 rating or better
- 2) A fire resistant suit that covers the body from the neck down to the ankles and the wrists. The suit shall be manufactured from one or more of the following accepted materials: Nomex, Kynol, FPT, IWS (wool), Fiberglass, Durette, Fypro, PBI and Kevlar.
- 3) *Fire resistant gloves which are free of any holes. Leather gloves are not acceptable.*
- 4) Goggles or face shields, made of impact resistant materials.
- 5) Shoes of durable fire resistant material, and which are free from any holes.
- 6) *Arm restraints must also be installed on the car in a manner such that the driver can release them and exit the vehicle unassisted regardless of the vehicle's position.*

### Driver Visibility

The car must be equipped with functional rear-view mirrors. The driver must have adequate visibility to the front, rear, and sides. The driver's head must be free to rotate 90 degrees to either side.

### Head Restraints

A restraint must be provided on the car to limit rearward motion of the head in the case of an accident. The restraint must be a padded surface with at least 1.5 inches of crushable, damped padding located no more than 1 inch away from the helmet in the uncompressed state. The head restraint must meet the above requirements for all drivers. It is recommended that the surface be 36 sq. inches.

Any portion of the roll bar or bracing which might be contacted by the driver's helmet shall be covered with styrofoam or other energy-absorbing material (minimum of 2 lbs/ft<sup>3</sup> polystyrene or equivalent) to a minimum thickness of 0.5 inches.

### Floor Closeout Panel

All vehicles must have a floor panel which separates the driver from the pavement. The panel must extend from the foot area to the firewall and must protect the legs and torso from track debris.

## Steering Wheel

The steering wheel must have a near circular perimeter. "H", "Figure-8", or cutout wheels are not allowed. The steering wheel must be attached to the column with a quick disconnect. The driver must be able to operate the quick disconnect while in the normal driving position with gloves on.

## Driver Egress

All drivers must be able to exit the vehicle in no more than 5 seconds. Egress time begins with the driver in the fully seated position, hands in driving position on the connected steering wheel, wearing the required driver safety equipment. Egress time will stop when the driver has both feet on the pavement.

## Roll Over Stability

The track and center of gravity of the car must combine to provide adequate roll-over stability. Roll-over stability will be evaluated using a pass/fail test. The vehicle must not roll when tilted at an angle of 57 degrees *in either direction* corresponding to 1.5 G's. The tilt test will be conducted with the *tallest* team member in the normal driving position.

## Kill Switch

The car must be equipped with a positive toggle-type kill switch affecting the entire electrical system of the car, located on the (driver's) right side of the vehicle in the proximity of the roll bar at shoulder height. This switch must be within easy reach from outside the car. An additional positive toggle-type kill switch must be located for easy operation by the driver.

The SCCA electrical symbol must be attached near both switches and the "run" and "kill" position must be clearly labelled.

## Fire Protection

A firewall must separate the driver compartment and all components of the fuel supply and liquid cooling systems. The firewall must be a continuous non-permeable surface made from a fire resistant material.

The car must be equipped with at least a single 2 lb 10BC or 1A10BC fire extinguisher. The hand held extinguisher must be mounted a safe distance from the fuel system and must be easily visible and removable from inside and outside the car, and must be labelled with the SCCA extinguisher symbol. A fire control system may be used if the actuation location meets the intents above.

## POWERTRAIN

### Engine and Drivetrain

The engine used to power the car may be any four-cycle piston engine with less than 610 cc displacement per cycle. The engine can be modified within the restrictions of the rules. Chrysler reserves the right to conduct an engine tear-down of any competitor's engine to confirm conformance to the rules.

The engine and transmission must be sealed to prevent leakage. In addition, a catch can or cans must be employed to retain fluids from any vents for the coolant system and the crankcase. The can must have a volume of 10% of the fluid being contained or one quart, whichever is greater.

Any transmission and drive train may be used. Any exposed drivetrain parts must be shielded or covered to protect the driver from flying debris in case of failure. Exposed high-speed equipment such as torque converters, clutches, and belt drives must be *protected* by a scatter *shield* of at least 12 gauge mild steel or documented equivalent. Guards for finger protection may be made of lighter material.

#### Fuel Allowed

During all performance events, the cars must be operated with gasoline (auto gas, aviation fuel, or racing gas) or (M85). No other fuel (such as nitromethane or alcohol) is allowed. Nitrous oxide or other oxidizing agents are not allowed. The M85-fueled cars must use the fuel mixture documented in the supplemental M85 rules. *Chrysler will provide fuel for all the teams at the event. (Specifications will be sent to all competitors in mid-December).*

The temperature of fuel introduced into the fuel system may not be changed with the intent to improve calculated fuel economy.

No agents other than fuel (gasoline or M85), and air may be induced into the combustion chamber. *Non-adherence to this rule will be reason for disqualification.* Officials have the right to inspect the oil. Only ambient air may be used to cool an intercooler.

#### Fuel System

All gasoline fueled cars must be equipped with a fuel tank having a volume of no more than 1 U.S. gallon. M85 fueled cars must be equipped with a fuel tank having a volume no greater than 1.75 U.S. gallons. The fuel system must have a provision for emptying the fuel tank for the purpose of measuring the tank volume.

All fuel tanks must have a filler neck of at least 1 inch diameter and at least 1.5 inches vertical height. The inside of the filler neck must be scribed with a readily visible line for the purpose of filling the tank to a repeatable level. The fuel level scribe line must be located between 0.5 and 1 inch below the top of the filler neck.

The fuel system must be designed such that the spillage during refueling cannot contact the driver position, exhaust system or hot engine parts, or the ignition system. Belly pans must be vented to prevent accumulation of fuel.

The fuel tank and carburetor venting systems must be designed such that fuel cannot spill during hard cornering or acceleration. This is a concern since motorcycle carburetors normally are not designed for lateral accelerations. During the inspection, the car must be capable of being tilted to a 45 degree angle without fuel spilling from the carburetor or full gas tank. All fuel vent lines must *be equipped with a check valve to prevent fuel leakage when the tank is inverted. All fuel vent lines must exit outside the bodywork.*

High pressure fuel systems must utilize metal braided hose with threaded fittings. Fuel lines should be securely attached to the vehicle and/or engine. All fuel lines must be protected from possible rotating equipment failure. *For the 1994 competition all fuel tanks will be required to lie within the major structure of the chassis.*

#### Throttle and Intake Restrictor

The car must be equipped with a carburetor or throttle body. The carburetor or throttle may be of any size or design. *Use of a push-pull type throttle cable is required with a compression spring at either the pedal or carburetor throttle body. A second spring must be mounted somewhere in the system such that failure of one spring cannot affect the performance of the other.* A positive pedal stop must be incorporated on the throttle pedal to prevent over stressing the throttle cable or actuation system.

In order to limit the power capability from the engine, a single circular restrictor must be placed in the intake system between the throttle and the engine and all engine air flow must pass through the restrictor. The diameter of the restrictor must be no larger than 20 mm for gasoline-fueled cars and 18 mm for M85-fueled cars. The restrictor must be located to facilitate measurement during the inspection process. If the throttle exit (not venturi) or intake manifold (of a single tube through which all flow passes) has a diameter of equal or smaller than the restrictor, then a restrictor is not required.

Turbochargers or superchargers are allowed if the competition team designs the application. Engines that have been designed for and originally come equipped with a turbocharger are not allowed to compete with the turbo installed. The restrictor must be placed upstream of the compressor but after the carburetor or throttle valve. Thus, the only sequence allowed is throttle, restrictor, compressor, engine.

#### Muffler and Exhaust System

The car must be equipped with a muffler in the exhaust system to reduce the noise to an acceptable level. The noise level will be measured with a sound level meter as the car accelerates at full power along a straight line for a distance of 100 feet. The measurement is made at the midpoint of the run at a distance of 20 feet from the car, 3 feet above the ground. The sound level must not exceed 105 dB on the A weighting band at any time during the test. The noise level will be tested prior to the dynamic events and may be repeated during the dynamic events or as requested by the judge of one of the events. A DNF will be awarded for the runs on which the sound test was failed. The exhaust must be routed so that the driver is not subjected to fumes at any speed considering the draft of the car.

#### GENERAL

##### Car Number

Each car will receive a number at the time of its entry in the competition. This number must be displayed in 6 inch (or larger) characters that are clearly visible from both sides of the car. The top nine numbers are reserved for the top nine finishers from the previous years' competition.

## **Aerodynamics and Power Ground Effects**

No power device may be used to move or remove air from under the race car except fans designed exclusively for cooling. No power ground effects are allowed.

*All wings mounted above the cockpit area must be mounted within a plane defined by the wheelbase and the smallest of the front/rear trackwidths. Egress requirements still apply. No aerodynamic devices that are adjustable while the car is in motion will be allowed.*

## **Modifications**

Modifications to the car are not allowed after the inspection and engineering judging except as noted below. This includes modifications that affect the available gear ratios, power transfer system, or safety. The removal of body panels for weight reduction is not allowed. Adjustments (e.g., tire pressure, brake bias, suspension adjustments, and chain or belt tension) are allowed to the car after the start of the performance events. Necessary repairs are allowed under the knowledge of the Faculty Advisor and the car must pass a re-inspection by the inspection judges.

## **Fasteners**

All bolts utilized in the steering, braking, safety harness and suspension systems must meet SAE Grade 5, Metric Grade M 8.8 and/or AN/MS specifications. All critical bolt, nuts, and other fasteners on the steering, braking, safety harness, and suspension must be secured from unintentional loosening. This can be accomplished best with safety wiring or cotter pinning; however, nylon lock nuts, locktight, and other forms deemed appropriate by the judges will be considered. Rod ends on the steering or suspension must be in double shear or captured by having a bolt head or washer larger than the diameter of the spherical bearing.

## **Body and Styling**

The vehicle must be open-wheeled, open-cockpit and have a formula style body.

## **Wheelbase and Vehicle Configuration**

The car must have a wheel base of at least 60 inches. The wheel base is measured from the center of ground contact of the front and rear tires with the wheels pointed straight. The vehicle must have four wheels that are not in a straight line.

## **Flags**

The flag signals convey the commands described below, and shall be obeyed immediately and without question.

### **Meaning of Each Flag**

#### **GREEN FLAG (Solid Green)**

A race is under way the instant the green flag is displayed. This flag shall normally be in possession of the Starter only, and shall not ordinarily be displayed at the flag stations around the course. When displayed, the green flag indicates that the course is clear.



## YELLOW FLAG (Solid Yellow)

STANDING YELLOW -- Take care, Danger, Slow Down, NO PASSING FROM THE FLAG until past emergency area.

WAVED -- Great Danger, Slow Down, be prepared to stop -- NO PASSING FROM THE FLAG until past emergency area.

NOTE: A driver may encounter several flags before reaching the emergency area. The requirements are still the same "SLOW DOWN, NO PASSING".

## BLUE FLAG (Blue with Diagonal Yellow Stripe)

Another competitor is following you very closely or is trying to overtake you. This flag may be displayed standing or waving, depending upon the speed with which you are being overtaken.

## BLACK FLAG (Solid Black)

CLOSED BLACK FLAG (Furled) -- WARNING -- you are driving in an unsafe or improper manner, if continued, you shall be given the Open Black Flag.

OPEN BLACK FLAG (Standing) -- Complete the lap you are now on, then stop for consultation at the location designated by the Chief Steward or the Supplementary Regulations for that event.

OPEN BLACK FLAG WITH THE WORD "ALL" DISPLAYED -- All cars proceed directly to the pits. Restarts are the same as for a red flag.

## CHECKERED FLAG (Black and White Checks)

You have finished the race (or practice/qualifying session). Continue cautiously to the pits.

## RED (Solid Red)

Come to an immediate, controlled stop, taking care not to endanger yourself or another car by the manner of stopping. Pull the car to the edge of the track to the extent circumstances permit.

THE RACE HAS BEEN STOPPED.

NOTE: THE RED FLAG CAN ONLY BE ORDERED BY THE CHIEF STEWARD THROUGH RACE CONTROL.

## *Penalties and Assessed Times or Disqualifications*

- *Failure to Yield to a Flag* *1 minute*
- *Over Driving (After a Closed Black Flag)* *1 minute*
- *Passing Under the Yellow Flag* *2 minutes*
- *Mechanical Problem*  
*(Black Flag with Orange Ball)* *Time Needed for Car*  
*Inspection by SCCA*  
*Tech Inspector*

## COMPETITION

The competition is divided into two categories:

- 1) STATIC EVENTS: Inspection, design, presentation and cost.
- 2) DYNAMIC EVENTS: Acceleration, skid pad, autocross, fuel economy and endurance.

Each of these events is described below in terms of the concept, how the event is conducted, the criteria used in judging, and the formula for scoring.

An individual team member cannot drive in more than three events. If only one 15-mile endurance heat is run, no team member can drive in more than two events *and fuel economy does not count as a driving event. Otherwise*, fuel economy event is considered a separate event although it is conducted simultaneously with another event. An individual may not drive in both heats of any event. It is the team's option to participate in any event. The team may forfeit their second heat in any performance event. To compete in all events a minimum of 4 drivers is required.

### INSPECTION

The concept of the inspection is to insure that the safety and design requirements outlined in the rules have been met. For cases in which the rules are not perfectly clear, the intent of the rule must be met. Violation of the intent of the rule is considered a violation of the rule.

Vehicle inspection will be performed at the time specified in the competition schedule. In addition to the general inspection, the following specific tests will be conducted.

- . Brake Check
- . Sound Level
- . Intake Orifice Diameter
- . Roll Over Stability (57 degree Tilt Test)
- . Fuel Leakage Test (45 degree Tilt Test)

The judges will complete the Safety and General Inspection check-list form in the appendix. If the judges find any part of the car that does not comply with the rules or is deemed to be a safety concern, then the team must correct the problem and request a reinspection before the car is allowed to compete in any performance event. The inspections judges reserve the right to reinspect any of the specifications (particularly the brakes and muffler) at any time during the competition.

SCHOOL: \_\_\_\_\_

CAR NO. \_\_\_\_\_

### SAFETY INSPECTION

- |   |  |
|---|--|
| <input type="checkbox"/> Wheelbase (greater than 60"?)                | <input type="checkbox"/> Scatter Shields for Rotating Parts        |
| <input type="checkbox"/> Egress (less than 5 sec?)                    | <input type="checkbox"/> Single Carburetor or Throttle             |
| <input type="checkbox"/> Ground Clearance (adequate?)                 | <input type="checkbox"/> Two Throttle Return Springs               |
| <input type="checkbox"/> Operational Suspension (+/-1"?)              | <input type="checkbox"/> Positive Throttle Stop                    |
| <input type="checkbox"/> Steering Stops (adequate?)                   | <input type="checkbox"/> Restrictor Size and Location              |
| <input type="checkbox"/> Roll-over Protection (height, structure)     | <input type="checkbox"/> Kill Switch, Markings (kills all systems) |
| <input type="checkbox"/> Exhaust Gas Fumes (system routing?)          | <input type="checkbox"/> Muffler (adequate?)                       |
| <input type="checkbox"/> Engine Protection (fuel system safe?)        | <input type="checkbox"/> Driver Visibility (180 degrees?)          |
| <input type="checkbox"/> Roll Bar Bracing (height, structure?)        | <input type="checkbox"/> Critical Fasteners Secured                |
| <input type="checkbox"/> Roll Bar Inspection Hole                     | <input type="checkbox"/> Rod End Containment                       |
| <input type="checkbox"/> Side Collision Protection (crush zone?)      | <input type="checkbox"/> Car Numbers                               |
| <input type="checkbox"/> Frontal Impact Protection (crush zone?)      | <input type="checkbox"/> Fuel Tank Filler Neck (fuel measure?)     |
| <input type="checkbox"/> Rear Protection (adequate?)                  | <input type="checkbox"/> Refueling Spillage (no contact w/heat?)   |
| <input type="checkbox"/> Safety Harnesses (5-6 point, proper mounts?) | <input type="checkbox"/> Oil Leaks (any?)                          |
| <input type="checkbox"/> Fire Extinguisher, Markings (2-lb bottle?)   | <input type="checkbox"/> Catch Cans (adequate size?)               |
| <input type="checkbox"/> Wheel Size (greater than 8"?)                | <input type="checkbox"/> Rear-View Mirrors (adequate?)             |
| <input type="checkbox"/> Brake Line Protection (adequate?)            | <input type="checkbox"/> Floor Closeout                            |
| <input type="checkbox"/> Safety Helmet, Suit, Gloves, Shoes           | <input type="checkbox"/> Brake Light (location, brightness?)       |
| <input type="checkbox"/> Firewall (separate driver from fluids?)      | <input type="checkbox"/> Engine Size (610cc)                       |
| <input type="checkbox"/> Head Restraint (size, padding?)              | <input type="checkbox"/> Steering Wheel quick disconnect           |

INSPECTOR'S SIGNATURE \_\_\_\_\_

- |   |   |
|---|---|
| <input type="checkbox"/> Noise Level (dBA)        | <input type="checkbox"/> Tilt to 45 degrees (no fuel spill) |
| <input type="checkbox"/> 4-wheel Brake Lockup     | <input type="checkbox"/> Tilt to 57 degrees (stable)        |
| <input type="checkbox"/> Fuel Vent Leakage (tilt) |   |

The inspection is not scored for team points; however, the car must pass the inspection and remain in accordance with the rules before it is allowed to compete.

### COST EVENT

The concept of the cost event is to obtain an accurate estimate of the cost of the car in limited production. This evaluates not only the actual cost of the car, but also the team's ability to prepare an accurate engineering cost estimate. The car with the lowest corrected cost and the best report will win the event.

The team will submit their cost report to Chrysler at the location and by the date specified by Chrysler. Competitors should expect the date to be approximately 2 weeks prior to the competition. The designated mailing address and the receipt date will be specified by Chrysler to all registered competitors at least 1 month prior to the event. The team must present their vehicle at the designated time to the cost judges for review of the cost report. The cost report review schedule will be posted at the organizational meeting on the first day of the competition. *Amendments that reflect any changes made after submission of the cost report must be submitted at registration.*

The cost event is judged on the basis of the cost of the car and the quality of the cost report. The cost of the car is determined by the cost of the parts and fabrication for a production rate of 1000 cars per year using established manufacturing practices.

The team will prepare a detailed engineering cost analysis using the guidelines and forms given in the appendix. From this analysis, the cost judges will determine if all parts and processes were included in the analysis and if unreasonably low (determined by the experience of the judges) costs were used. In the case of any omission, error, or cost below reasonable estimates are used, then the judges will add a penalty equal to twice the cost error. The competitors price plus penalties will be used to determine the cost score.

For example, if a car has tires listed at \$10 whereas other teams list the same or similar tires at \$50 (determined by the judges to be reasonable), then the judges add 2 x \$40 for each tire to the cost. Errors of costs above reasonable estimates are not penalized further, and the error is not corrected. Cost reports that have not made a serious attempt at an accurate estimate or that claim that their cost is substantially below other similarly-equipped cars will be disqualified as unresponsive and will be scored as unsubmitted.

The score is the sum of the report score and the price score. The report score will be given based upon the quality of the cost report. The range for the report score will be 0-25. The price score will be awarded based upon the following formula.

$$\text{Price Score} = 75 * (\$8000 - P_{\text{YOUR}}) / \$3000$$

$$\text{Cost Score} = \text{Price Score} + \text{Report Score}$$