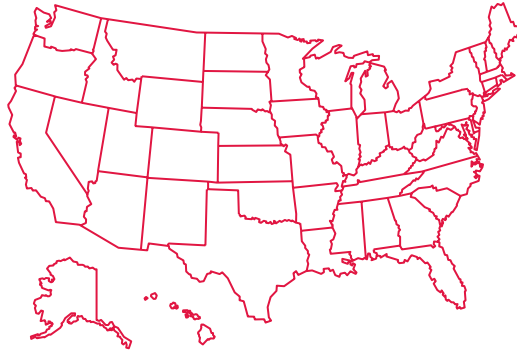




# 2006

## OFFICIAL RULEBOOK

THE NATIONAL STANDARD FOR TEMPLATE BODIES



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## **ABC Program...**

### **The Need For Standard Body Rules.**

In December 2002 two of the major body companies and their representatives were asked to meet with CRA & SAS officials. The reason for the meeting was that the bodies used on most offset chassis had gotten out of hand. There were no common rules for checking the bodies at the local level or across the country. Each manufacturer had their own templates that made it confusing for technical inspection of the cars. Also, each body manufacturer was continually making aerodynamic advances in body design. This made the cost go up for the racer, because he would have to change his body to keep up with the latest aerodynamic designs. A common idea was presented to both companies and they agreed to help come up with a totally new body concept.

The result was the **Approved Body Configuration "ABC Bodies"**. Under this agreement all participating body manufacturers must build their new ABC bodies to meet specific dimensions and 18 builder templates ensuring aerodynamic equality. These templates were developed and approved by the ABC committee. To be a participant in the ABC program each company must present a pre-production full-scale model of every body style for approval by the ABC committee prior to building the production tools and patterns. Once approved the manufacturer must provide a fully mounted race ready production body of every body style for approval. This must be done prior to actual manufacture and sale of any panels.

The following companies have approved ABC legal Bodies for competition:

<b>Aluminum Racing Products, Inc</b>	(888) 245-1468
<b>Five Star Race Car Bodies</b>	(262) 877-2171

### **Benefits to Race Organizers ~ Easy to Participate**

The ABC body program will help simplify the body rules for everyone from the local race track to the major series across the country running this type of body. The ABC program has its own rulebook with all the guidelines, dimensions etc...to tech the bodies. **There is NO COST for the local track promoter to be a part of the ABC program.** ABC rulebooks are available **FREE** from the participating body manufacturers. A promoter only needs to put a statement in the rulebook referring all competitors to the ABC rulebook for all body guidelines. When tracks across the country have the same body rules it will make it much easier to have larger field for special events drawing cars from other series and tracks.

**Simple as ABC ~ more cars, easier tech, less confusion – everyone wins!!**

## Benefits to Rule Makers and Technical Staff ~ Tech Simplified

The days of having multiple sets of templates for each body style are over. Simply insert a statement into your rulebook that refers competitors to the ABC rulebook for body guidelines. This takes the promoter out of the body rule making business. Common wooden templates for each model as well as a tech device called the "Referee" are now available. The "Referee" tech device will check front overhang, front tread width, roof height at 10 inches back from the windshield, wheelbase, rear tread width, quarter panel height, and rear spoiler overhang in less than two minutes. The centerline, side-to-side, and fender templates will check the areas not covered by the "Referee" and should be able to be done in about a minute. This means that a very thorough inspection of the body can be completed in less than three minutes per car, which seems to be a reasonable amount of time even for events with large car counts. The templates and the "Referee" are available from each participating body manufacturer for a nominal fee.

## Benefits to Racers

With the ABC program, a local racer with a standard offset late model chassis can install an approved ABC body and be able to have the same proven body package that the touring series use. Racers will have a very clear direction as to body rules and requirements for any event they may wish to participate in regardless of where it is. The ABC body program will bring an end to competitors building event specific, costly bodies. **It is recommended that all racers and car builders install their bodies to the ABC dimensions and templates.** Proper mounting of the body will eliminate any potential loss of practice time as a result of having to correct body infractions at the track.

## ABC Advisory Committee

The ABC Body Program Advisory Committee reserves the right to change or modify existing rules as needed to enhance close competition and in the best interests of the sport of auto racing.

As of November 4, 2004 the ABC Body Program advisory Committee consists of the following members:

<b>Five Star</b>		<b>ASA Late Model</b>	
<b>Race Car Bodies</b>	(262) 877-2171	<b>Series</b>	(800) 385-2503
Fran Prestay		Ron Varney	
Carl Schultz		<b>Champion Racing Association</b>	
Jim Katzenberg		R. J. Scott	(303) 748-1811
<b>Aluminum Racing</b>		Glenn Lockett	(812) 883-0455
<b>Products</b>	(888) 245-1468	<b>FASCAR</b>	(386) 427-4129
Jerry Criswell		Don Nerone	
Roy Dies, Jr.			
Brad Cook			

## General Body Requirements

It is the responsibility of all competitors to present a car that fits the templates within allowable tolerances and meets all dimensions as inspected by the "REFEREE."

1. The following body styles manufactured by ABC program approved manufacturers are eligible for competition:
  - Chevrolet Monte Carlo
  - Dodge Charger
  - Dodge Intrepid
  - Ford Fusion
  - Ford Taurus
  - Pontiac Grand Prix
2. The entire body must be from one manufacturer. Mixing of panels from different manufacturers will not be allowed.
3. All body panels must be mounted as produced by the manufacturer. Modification or alteration of panels will not be allowed.
4. All body panels and windows must be mounted and properly braced on the chassis to prevent deflection under racing conditions.
5. Manufacturer's identification labels must be visible and not painted over.
6. The recommended tread width will be 65 inches.
7. The allowable range of wheelbase will be 101 to 105 inches.
8. All bodies must fit the templates within the tolerances as indicated on the template with a colored line. The tolerances will be Blue equals  $\frac{1}{4}$  inch. All other areas will equal  $\frac{1}{2}$  inch.
9. All cars competing in a race event must have a complete, painted body with full details, including headlight and taillight decals.
10. Carbon fiber will not be allowed in any body panels.
11. All dimensions and template inspections will be done with the driver out of the car.

## Body Panel Specifications

### FRONT NOSE

1. Only approved nose pieces manufactured by ABC approved manufacturers and visible ABC labels will be allowed for competition.
2. All nose pieces must remain as manufactured and may not be intentionally altered in any way, including the return flanges on the bottom edge and at the nose/fender intersection. In the event that the lower part of the nose has been worn off, a replacement valance piece may be installed on the nose. This part will be made from plastic only and must measure approximately 2½" tall. The valance piece must be mounted in the same plane as the original air dam and will be subject to tech approval.

3. The nose must be centered on the front tread width (measured at the racing surface).
4. The nose piece must be supported by a tubular support to the chassis. These support tubes must remain behind the nose piece and may not extend through or past the bumper.
5. The maximum front overhang from the centerline of the spindle to the leading edge of the lower air dam at the centerline will be 46 inches (photo N-1).



N-1

6. The maximum kick out on the lower air dam from the bumper line is 3 inches.
7. The minimum ground clearance along the entire bottom edge of the nose is 4 inches.



N-2

8. The nose must fit the left fender/nose template #17 (photo N-2), the right fender/nose template #18 (photo N-3) and the vertical nose template #2 (photo N-4) within the allowable tolerances. (For exact template location, see page 7, photos F-3 & F-4).



N-3



N-4

9. The grill area above the bumper line cannot be cut out for any reason. All radiator cooling air must be obtained from the grill area below the bumper line.

## HOOD

1. Only approved hoods manufactured by ABC approved manufacturers containing visible ABC labels will be allowed for competition. **Carbon fiber hoods will not be allowed.**
2. All hoods must remain as manufactured and may not be altered other than trimming the outer edge to fit the fenders, nose and windshield.
3. All hoods must be adequately braced so they do not deform under racing conditions.
4. The hood must fit tight to the fenders and windshield/cowl at all times.
5. The maximum allowable opening in the hood for air intake to the carburetor will be 2½ inches by 20 inches. No other holes in the hood will be permitted.
6. All hoods shall have a minimum of 5 positive locating pins across the leading edge of the hood.
7. The hood must fit the centerline template #1 (photo H-1) within the allowable tolerances.



H-1

## COWL PANEL

1. The cowl panel is considered an extension of the hood and must fit the centerline template.
2. The cowl panel is not mandatory for use in 2006.
3. It is recommended that only cowl panels produced by approved ABC body manufacturers be used in 2006. Non-ABC approved cowl panels are subject to tech approval in 2006. In 2007, only cowl panels manufactured by approved ABC body manufacturers will be allowed for competition.
4. The air intake opening must be  $2\frac{1}{2}$ " x 20" plus or minus  $\frac{1}{16}$ ".

## FENDERS

1. Only approved fenders manufactured by ABC approved manufacturers containing visible ABC labels will be allowed for competition. **Carbon Fiber, Kevlar®, or metal fenders will not be allowed.**
2. All fenders must be mounted as produced and may not be altered other than trimming excess material from the trailing edge of the fender at the fender/door intersection.
3. All fenders must be flange fitted to the nose.
4. Wheel openings may not be larger than 7 inches from the edge of the wheel (not the tire). Altering the wheel openings is prohibited.
5. The left fender must fit the left fender/nose template #17 (photo F-1) and the right fender must fit the right fender/nose template #18 (photo F-2) within the allowable tolerances.



F-1



F-2





**F-3**

*Left side template is located 23<sup>7</sup>/<sub>8</sub> inches from centerline. Right side template is located 26<sup>1</sup>/<sub>2</sub> inches from centerline.*



**F-4**

*Both fender templates are located at the inside of the windshield post.*

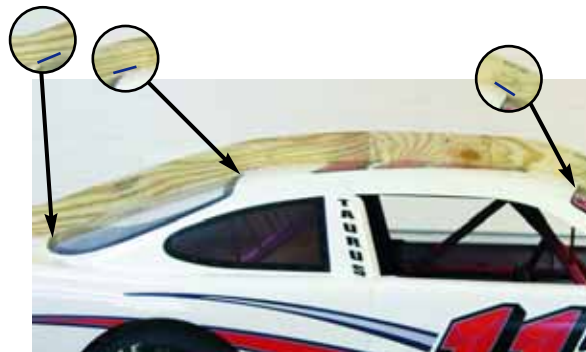
## **ROOF PANELS**

1. Only approved roof panels manufactured by ABC approved Manufacturers containing visible ABC labels will be allowed for competition. **Carbon fiber roofs will not be allowed.**
2. All roof panels must be mounted as produced and may not be altered in any way.
3. A common roof panel will be used for all body styles.
4. The roof may be mounted a maximum of 2<sup>1</sup>/<sub>2</sub> inches left of the centerline of the chassis.
5. The centerline of the roof must run parallel to the centerline of the tread width.
6. Roof rails will not be permitted.
7. The minimum height of the roof is 47 inches, measured 10 inches back from the leading edge of the roof on the centerline (photo R-1).



**R-1**

8. The minimum height at the rear of the roof will be 45½ inches on all models. This will be regulated with the centerline template #1 (photo R-2) and the side-to-side template #10 (photos R-3). The roof panel must fit the templates within the allowable tolerances. These areas must maintain a 1/4" tolerance (as indicated by blue lines on templates).



**R-2**



**R-3**



**R-4**

*The side-to-side template is located at the top of the rear window and is held at a 90 degree angle to the roof.*



**R-5**

*It is important to hold the template at 90 degrees to the roof for proper location of the quarter panels.*

## **DOORS**

1. Only approved door panels manufactured by ABC approved manufacturers containing visible ABC labels will be allowed for competition.
2. All door panels must be mounted as produced and may not be altered in any way.

3. The width of the top of the left door will be a maximum of 2 inches from the center of the roll.
4. The width of the top of the right door will be a maximum of 3 inches from the center of the roll.
5. Doors may not extend back beyond the trailing edge of "B" pillar. The trailing edge of the door must fit into a recess that is provided in the quarter panel.
6. The height at the front of the door will be 32½ inches.
7. The height at the rear of the door will be 33 inches.
8. The width between the doors immediately behind the "A" pillars will be 68 inches at the top measured through the car. See the dimension sheet diagram.
9. The width between the doors immediately in front of the "B" pillars will be 67 inches at the top measured through the car. See guideline chart.

## QUARTER PANELS

1. Only approved quarter panels manufactured by ABC approved manufacturers containing visible ABC labels will be allowed for competition. Carbon Fiber, Kevlar®, or metal quarter panels will not be allowed.
2. All quarter panels must be mounted as produced and may not be altered. The only work that is allowed is the removal of the excess material beyond the scribe lines on the trailing edge at the quarter/bumper cover intersection and at the top, at the quarter/roof intersection, to ensure proper fit.
3. Wheel openings may not be larger than 7 inches from the edge of the wheel (not the tire). Altering the wheel openings is prohibited.
4. Quarter panel window areas must be cut out to scribe line and have polycarbonate windows in both the left and right sides.



Q-1

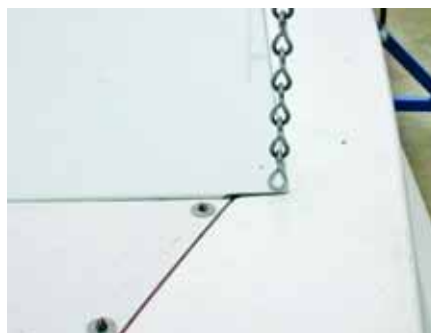


Q-2

5. The quarter panels must fit the side-to-side template #10 (photos Q-1 and Q-2 on page 9) within the allowable tolerances. (For exact template location, see photos R-4 & R-5 on page 8.)



**Q-3**



**Q-4**



**Q-5**

6. The height at the quarter panel/deck lid/bumper cover intersection will be  $34\frac{1}{2}$  inches ( $34\frac{1}{4}$ " minimum) on both the left side and on the right side (photos Q-3 & Q-4).

7. The maximum gap is  $\frac{3}{8}$ " for first 15" up from ground. The measurement will be taken from the leg of the quarter panel to the framing square as indicated with the arrow (photo Q-5).



**RP-1**

## **ROCKER PANELS**

1. Only approved rocker panels manufactured by ABC approved manufacturers containing visible ABC labels will be allowed for competition.
2. Rocker panels must be mounted in a single plane from the front to rear and top to bottom as shown in photos RP-1 and Q-5.
3. All rocker panels must be mounted as produced and may not be altered other than notching for the jack posts and trimming to length.

4. The step in the rocker panel for rigidity may be a maximum of 1/4 inch.
5. The step out on the rocker panel must run parallel to the racing surface.
6. The minimum height of the rocker panel will be 4 inches from the racing surface.

### **DECK LID**

1. Only approved aluminum deck lids manufactured by ABC approved manufacturers containing visible ABC labels will be allowed for competition.
2. All deck lids must remain as manufactured and may not be altered in any way.
3. The deck lid must be substantial enough to prevent it from deforming under racing conditions.
4. The deck lid must be able to be opened for inspection purposes.
5. The deck lid must fit to the centerline template #1 (photo DL-1) within the allowable tolerance of 1/4" (as indicated by blue line on template).



**DL-1**

### **DECK LID FILLER PANEL**

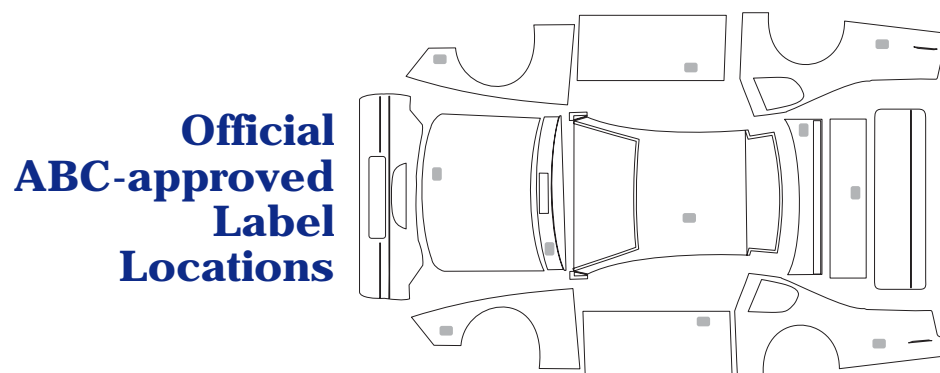
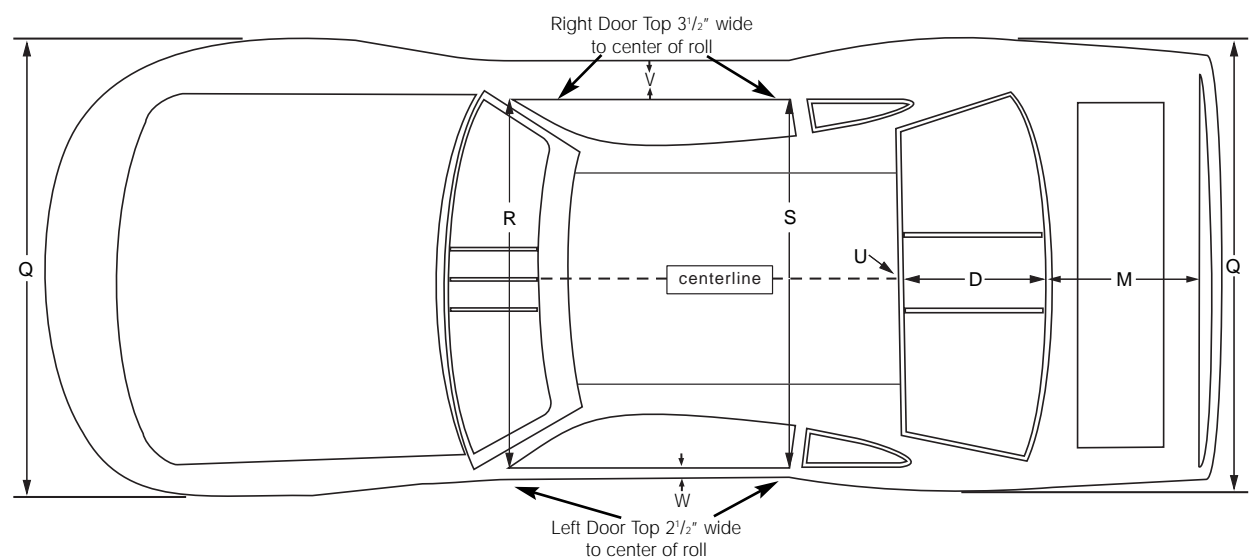
1. Only approved deck lid filler panels manufactured by ABC approved manufacturers containing visible ABC labels will be allowed for competition.
2. All deck lid filler panels must remain as manufactured and may not be altered in any way.
3. The deck lid filler panel must fit the centerline template #1 (photo DL-1) within the allowable tolerances.

### **REAR BUMPER COVER**

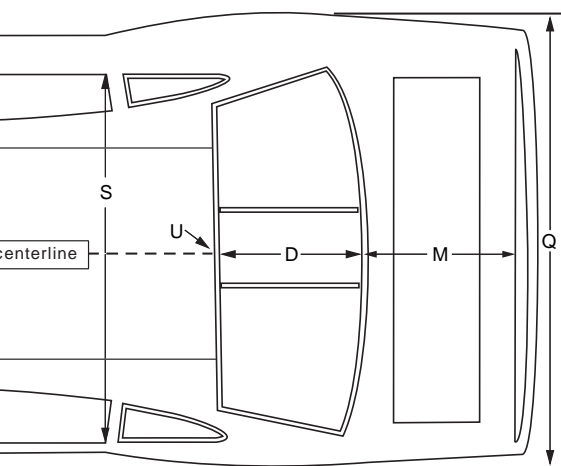
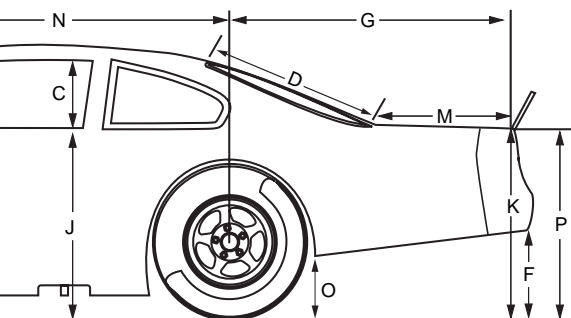
1. Only approved rear bumper covers manufactured by ABC approved manufacturers containing visible ABC labels will be allowed for competition.

A side profile diagram of a car with various dimensions labeled with letters and numbers. The dimensions are as follows:

- A**: Front bumper height.
- B**: Front wheel center to front bumper distance.
- C**: Front wheel center to roof height.
- D**: Rear wheel center to rear window height.
- E**: Front wheel center to rear wheel center distance.
- F**: Rear wheel center to rear bumper height.
- G**: Rear wheel center to rear bumper distance.
- H**: Front wheel center to roof height.
- I**: Front wheel center to roof height.
- J**: Rear wheel center to roof height.
- K**: Rear wheel center to rear bumper height.
- L**: Front wheel center to roof height.
- M**: Rear wheel center to rear bumper distance.
- N**: Front wheel center to rear wheel center distance.
- O**: Rear wheel center to rear bumper height.
- P**: Rear wheel center to rear bumper height.
- 10"**: Front wheel center to front bumper distance.
- "A" POST**: Front wheel center to roof height.



# C Body Dimension Sheet



## GUIDELINE DIMENSION

A	NOSE HEIGHT (MIN): from ground to top of bumper line	15¼"
B	FRONT OVERHANG (MAX): on centerline	46"
C	SIDE WINDOW OPENING (MIN): at "B" post	15"
D	REAR WINDOW LENGTH: on centerline	31½"
E	NOSE/SIDE PANEL CLEARANCE (MIN): from ground	4"
F	BUMPER COVER HEIGHT (MAX): from ground	15"
G	REAR OVERHANG (MAX): from base of spoiler at centerline to axle centerline	47"
H	ROOF HEIGHT (MIN): 10" back from windshield, on centerline	47"*
I	FENDER HEIGHT: at rear	32½"
J	DOOR HEIGHT: at rear	33"
K	QUARTER PANEL HEIGHT: at bumper cover/deck lid intersection (34¼" minimum)	34½"*
L	WINDSHIELD ANGLE: at center/at roof windshield post	26/30°
M	REAR DECK LENGTH (MAX): at center, from base of spoiler to rear window	23¼"
N	FRONT OF ROOF TO CENTER OF REAR AXLE	57½"
O	QUARTER PANEL HEIGHT: at back of wheel well opening	13"
P	BUMPER COVER HEIGHT: at base of spoiler, on centerline	34 <sup>7</sup> / <sub>8</sub> "*
Q	BODY WIDTH (MAX): at wheel wells	79½"
R	DOOR TO DOOR WIDTH (measured through car): at "A" posts and inside edges of doors	68"
S	DOOR TO DOOR WIDTH (measured through car): at "B" posts and inside edges of doors	67"
U	ROOF HEIGHT, REAR: at centerline	45½"
V	RIGHT DOOR TOP: to center of roll	3½"
W	LEFT DOOR TOP: to center of roll	2½"

*\*If Dimensions H, K or P are higher than the stated dimensions, all three must increase by the same amount.*

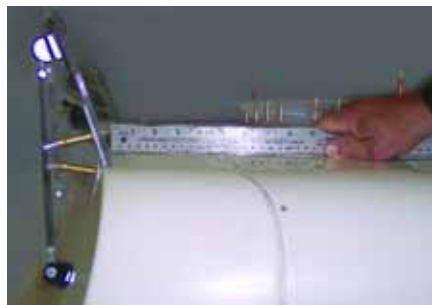
2. All bumper covers must remain as manufactured and may not be altered in any way.
3. The bumper cover must be designed in a manner that when the spoiler is mounted, the dimension from the centerline of the rear axle to the base of the spoiler at the centerline will not exceed 47 inches.
4. The bumper cover must be mounted on the centerline and not offset.
5. The top of the bumper cover must be supported to prevent it from deforming under race conditions.
6. The bumper cover must be supported by a tubular support to the chassis. These support tubes must remain behind the bumper cover and may not extend through or past the bumper.
7. The bumper cover must be mounted to fit the centerline template #1 (photo BC-1) for the correct rear overhang dimension and the vertical bumper cover template #3 (photo BC-2) within the allowable tolerances. Note: Template #3 is an optional template available to tech inspectors. It is used to confirm that the bumper cover contour is as manufactured (and not altered).
8. The bumper cover must be mounted at the same plane as the deck lid and the top of the quarter panel as shown in photos BC-1 and BC-3.



BC-1



BC-2



BC-3



## SPOILER

1. Only approved spoilers manufactured by ABC approved manufacturers will be allowed for competition.
2. An approved rear spoiler must be a non-adjustable part of the body that controls the flow over one surface only.
3. There will be two options for the size of the polycarbonate spoiler blade, to be determined by the sanctioning body. Both size options will use the same base:
  - Option #1 RECOMMENDED - 6½ inches tall by 60 inches wide.
  - Option #2 - 5 inches tall by 60 inches wide.All spoilers will have a minimum 3/16" thick clear polycarbonate blade.
4. **The maximum width of the spoiler will be measured across the rear of the spoiler.**
5. The spoiler must maintain the same contour as the bumper cover.
6. The spoiler must be centered on the bumper cover.
7. **The spoiler must have a 1/2 inch split in the center to accommodate the centerline template (photo BC-1).**
8. The base of the spoiler at the centerline may not exceed 47 inches from the centerline of the rear axle.
9. Rudders or forward mounted brackets will not be permitted.
10. Spoiler supports mounted from the rear side of the spoiler to the bumper cover will be permitted.
11. A minimum of the top 3½ inches of the rear spoilers of all cars must be made of clear, flat polycarbonate.
12. Minimum spoiler angle - 55 degrees.

## Window Specifications

### WINDSHIELD

1. A clear, molded polycarbonate windshield with a minimum thickness of 1/8 inch must be used in all cars. The same shape windshield will be used for all body styles. Flat, unmolded windshields are not allowed.
2. All windshields must be supported by a minimum of three internal windshield braces to prevent deflection under racing conditions.
3. The windshield braces shall be made of a minimum 1/8 inch thick and 1 inch wide aluminum.
4. The windshield braces should be spaced on a minimum of 5 inch centers and should be approximately in the center of the windshield.

## REAR WINDOW

1. A clear, molded polycarbonate rear window with a minimum thickness of .090 inch must be used in all cars. The same shape rear window will be used for all body styles. Flat, unmolded rear windows are not allowed.
2. All rear windows must be supported by a minimum of two internal window braces to prevent deflection under racing conditions.
3. The window braces shall be made of a minimum 1/8 inch thick and 1 inch wide aluminum.

## QUARTER PANEL WINDOWS

1. Clear polycarbonate side windows with a minimum thickness of .090 inch must be used in all cars.
2. The side window shape will vary for brand identification.
3. Flat or molded quarter panel windows are allowed for competition.

## VENT WINDOWS

The maximum dimension for the vent window along the top of the door will be 12 inches and must go 90 degrees from the top of the door up to the "A" pillar (photo V-1).



V-1

## Rules for 1998-2002 Non-ABC Approved Body Styles

1. The use of any 1998-2002 body will require that the body be installed as produced by the manufacturer and to the manufacturers guidelines as of December 31, 2002. Templates will be used and all cars will fit either a Five Star or Aluminum Racing Products race approved template. Weight will be added for cars that do not meet the pre-determined tolerances. A maximum width of 78 inches on all body panels will be required. No louvers or drilling of the body panels will be permitted. Only Monte Carlo, Grand Prix, Taurus, and Intrepid bodies will be approved.  
**Please note: No 2003 or 2004 non-ABC bodies from any manufacturer or parts from those bodies will be allowed to compete.**
2. In 2006 any 1998-2002 bodies will be assessed a 100 pound weight penalty.
3. The rear spoiler will be permitted in one of two configurations, 5 inches by 60 inches or 6½ inches by 60 inches as permitted by track or series rules. Spoiler must be mounted so the base of the spoiler at the center is no more than 47 inches behind the centerline of the rear axle. Cars that do

not meet this dimension have three options:

- (1) move the spoiler forward on the deck lid
  - (2) reduce the spoiler height by 1/2 inch across the entire top edge of the spoiler for every 1 inch the spoiler is located beyond the 47 inch dimension, or
  - (3) shorten the rear quarter panels and re-attach the bumper cover at the 47 inch measurement. The amount removed must be done so completely throughout the width of the spoiler. This replaces the traditional rear overhang measurement, and allows everyone to compete without major changes to the rear of their car. Spoilers must be 5 inches x 60 inches and predominantly clear.
4. The maximum front overhang will be 46 inches.
  5. Polycarbonate Windows:
    - a. Windshield: A clear, molded polycarbonate windshield with a minimum thickness of 1/8 inch must be used in all cars. Flat unmolded windshields are not allowed.
    - b. Rear Window: A clear, molded polycarbonate rear window with a minimum thickness of .090 inch must be used in all cars. Flat unmolded windows are not allowed.
    - c. Quarter Windows: Clear polycarbonate side windows with a minimum thickness of .090 inch must be used in all cars.
  6. The rear quarter panel and deck lid must be level side-to-side, one-inch back from the rear window.
  7. The maximum height of the rear quarter panel at the intersection of the quarter panel/deck lid/bumper cover will be 34½ inches on all models, on both sides.
  8. The minimum height of the roof at 10 inches back from the windshield on the centerline will be 47 inches on all models.
  9. The minimum height for the nose at any point across the lower valance will be 4 inches on all cars.
  10. Rocker panels must be flat except for a 1/4 inch maximum step out for rigidity. The step out on the rocker panel must run parallel to the racing surface. No curved rocker panels are allowed. The minimum height of the rocker panel will be 4 inches from the racing surface.
  11. All noses and rear bumper covers must be supported by tubular bumper supports at all times while on the racetrack. All bumper supports must remain inside of the nose and rear bumper cover and may not extend through or past the nose or rear bumper cover.
  12. All body panels including the windows must be adequately supported to prevent them from deforming under racing conditions.

# How to Use the Official Referee

The Official Referee is a quick and easy to use tech inspection device for checking seven major points on a race car body. It is not intended for use in body mounting. The body can easily be installed within specs by using the body dimension sheet and templates. **The Official Referee is to be used in conjunction with the centerline, side-to-side and fender templates and is not meant to replace these templates.** Part number TT-100-00: \$650.<sup>00</sup>

This section will explain and illustrate how to check the following dimensions:

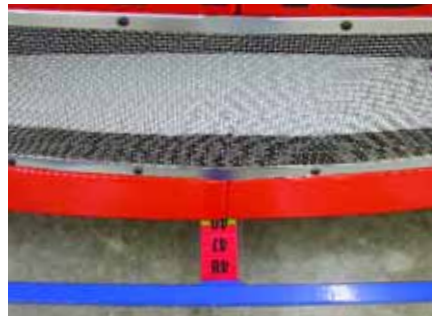
- Front Overhang
- Wheelbase
- Rear Overhang
- Front Tread Width
- Rear Tread Width
- Quarter Panel Height
- Roof Height

IMPORTANT: A flat surface at least as big as the car is essential for a tech inspection area to ensure accurate measurements.

## STEP 1: MEASURING FRONT OVERHANG



*Insert arms into front wheels and lock into place.*



*Front overhang is measured by viewing the gauge at the base of the nose.*

## STEP 2: MEASURING FRONT TREAD WIDTH



*Insert left side tread width measuring arm into left wheel and lock into place. Repeat this procedure on the right side.*



*Front tread width is measured by viewing gauge on right side measuring arm.*

### STEP 3: MEASURING WHEELBASE



*Insert front arm into the front wheel. Remove locking pin from rear arm and insert into rear wheel.*



*Wheelbase is measured by viewing the calibrated arm on the rear arm.*

It is acceptable to have different wheelbase measurements on each side (due to caster).

Wheelbase must be checked before and after the race to eliminate the possibility of a racer moving the rear axle forward to gain rear overhang after initial tech.

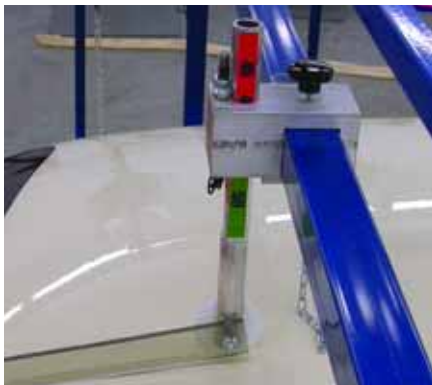
### STEP 4: MEASURING ROOF HEIGHT



*Move car or Referee until roller contacts roof and polycarbonate gauge is in line with the top edge of the windshield.*



*Align polycarbonate gauge with top edge of windshield to locate the calibrated gauge at exactly 10 inches back from the windshield.*



*The roof height is measured by viewing the calibrated rod attached to the polycarbonate gauge.*

## STEP 5: MEASURING REAR TREAD WIDTH

*Insert left side tread width measuring arm into left wheel and lock into place. Repeat this procedure on the right side (see Step 2, page 18). Rear tread width is measured by viewing gauge on right side measuring arm.*



## STEP 6: MEASURING QUARTER PANEL HEIGHT AND REAR OVERHANG



*Insert front arms into rear wheels and lock into place.*



*Quarter panel height is correct when free-hanging chain just touches the intersection point.*

*When chain touches bumper cover at base of spoiler on the centerline (as shown), rear overhang is correct.*





# How to Calibrate the Official Referee

The Official Referee tech device is fully calibrated at the factory. During initial assembly, Step 1 (Width of device) will require adjustment as the hex rod was loosened during disassembly for shipping. All other calibrations should be correct during initial assembly but should be checked for accuracy.

## STEP 1: WIDTH OF THE DEVICE



*Clamp tape measure to outside of one side of device.*



*Extend tape to outside of opposite side of device.*



*Adjust hex rod to obtain 92 inches from outside to outside of device.*

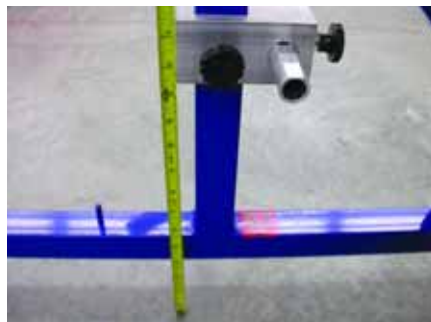


*The 92 inch dimension is critical to ensure tread width gauges are properly calibrated.*

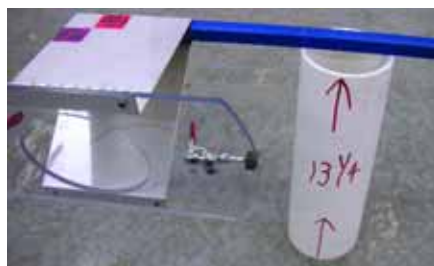
*When the dimension is correct, tighten the lock nut against the hex rod.*

## STEP 2: TREAD WIDTH GAUGE BLOCKS

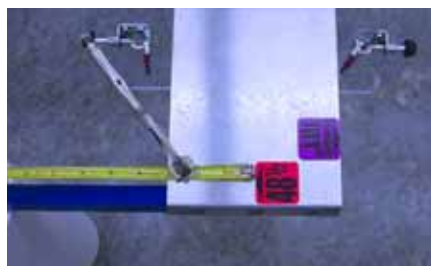
*Adjust block so tread width gauge is located to center of wheel (approximately 12½ inches up from ground). This dimension will vary based on tire size.*



## STEP 3: CALIBRATE FRONT ARMS



*Place front arm in horizontal position and rest on 13¼ inch block.*



*Clamp tape measure so tape is resting on 48½ inch sticker located on front arm.*



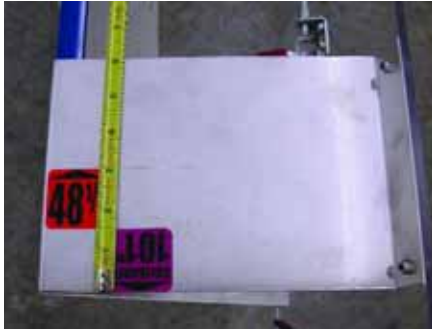
*Extend tape back to 48½ inch sticker located on vertical post.*



*Adjust heim on forward arm to obtain 48½ inch measure. Repeat process for opposite arm.*



#### STEP 4: CALIBRATE WHEELBASE



*Leave forward arm (that was just calibrated) in the horizontal position on the 13¼ inch blocks. Place rearward arms in horizontal position on another 13¼ inch block. Hook tape measure onto forward arm on the 101 inch sticker and extend tape to rearward arm at 101 inch sticker.*



*Adjust heim on rearward arm if necessary. Repeat on opposite side.*



#### STEP 5: CALIBRATE QUARTER PANEL HEIGHT CHAINS

*Measure 34½ inches from the ground up and adjust chain so bottom link is at this measurement. Repeat on other side.*

#### STEP 6: CALIBRATE REAR OVERHANG CHAIN

*Measure 34⅞ inches from the ground up and adjust chain so bottom link is at this measurement.*

#### STEP 7: CALIBRATE ROOF HEIGHT GAUGE

*This gauge is not adjustable and is calibrated on a surface plate at the factory. The roof height gauge should show the same measure as the tape measure when properly calibrated.*

**If you have any questions concerning the Official Referee, please call Five Star Race Car Bodies at (262) 877-2171 and ask for Fran.**



## Race Car Body Inspection Checklist

Track	Date	Driver	Car #	Body Style	Body Mfr
Tech Inspector (signed)			Racer (signed)		

### Body Inspection

		<u>Fix</u>	<u>Penalty</u>
1) <b>Nose</b>	Minimum Height: 4"	pass / fail	
	Bottom return flange not removed	pass / fail	
	Nose Screen- Mounted flush on lower air dam in the recess provided	pass / fail	
2) <b>Cowl Air Intake</b>	Stated Max. Opening: 2 1/2" x 20"	pass / fail	
3) <b>Vent Windows</b>	12" Max. along top of door	pass / fail	
	90 Degrees from top of door to A Pillar	pass / fail	
4) <b>Window Braces</b>	Front- 3 required 1/8" thick x 1" wide	pass / fail	
	Rear- 2 Required 1/8" thick x 1" wide	pass / fail	
5) <b>Rocker Panel Height- 4" Minimum</b>		pass / fail	
6) <b>Wheel Opening- Fenders and Quarter panels- 7" Max. from edge of rim</b>		pass / fail	
7) <b>Spoiler -</b>	Width- 60" maximum across back of spoiler	pass / fail	
Height- 5" with 3/16" Polycarbonate Upper -or- 6 1/2" with 1/4" Polycarbonate Upper		pass / fail	
8) <b>Manufacturer's Decals-</b>	Visible on inside of each body panel	pass / fail	

### Template Inspection

	<u>Fix</u>	<u>Penalty</u>
1) <b>Centerline Templates</b>		
Nose/Hood Template	pass / fail	
Roof Template	pass / fail	
2) <b>Fender Templates</b>		
Left Template	pass / fail	
Right Template	pass / fail	
3) <b>Side to Side Templates-</b>		
* Measured on ground, 23 7/8" from centerline of nose	pass / fail	
* Measured on ground, 26 1/2" from centerline of nose	pass / fail	
Placed at back of roof (90 degrees to roof)	pass / fail	

This is the recommended Tech Inspection Form. Carbonless two-part forms are available from Five Star Race Car Bodies and Aluminum Racing Products. It is also available as a downloadable PDF file from [fivestarbodies.com](http://fivestarbodies.com) and [arpbodies.com](http://arpbodies.com).

<b>Template Inspection</b>		<u>Fix</u>	<u>Penalty</u>
<b>1) Centerline Templates</b>			
Nose/Hood Template		<input type="checkbox"/> pass / fail	
Roof Template		<input type="checkbox"/> pass / fail	
<b>2) Fender Templates</b>			
Left Template	* Measured on ground, 23 7/8" from centerline of nose	<input type="checkbox"/> pass / fail	
Right Template	* Measured on ground, 26 1/2" from centerline of nose	<input type="checkbox"/> pass / fail	
<b>3) Side to Side Template-</b> Placed at back of roof (90 degrees to roof)			
		<input type="checkbox"/> pass / fail	
<b>Referee Inspection</b>			
<b>1) Front Overhang-</b> 46" max. from center of nose from center of front spindles			
		<input type="checkbox"/> pass / fail	
<b>2) Front Tread Width</b>			
	Stated Max: 65"	<input type="checkbox"/> pass / fail	
<b>3) Roof Height</b>			
	Stated Distance: 47" @ 10" back	<input type="checkbox"/> pass / fail	
<b>4) Wheel Base</b>			
	Stated Range: 101" - 105"	<input type="checkbox"/> pass / fail	
<b>5) Rear Tread Width</b>			
	Stated Max: 65"	<input type="checkbox"/> pass / fail	
<b>6) Quarter Panel Height -</b> At Quarter Panel, Bumper Cover and Deck Lid intersection			
Left Side-	Stated Height: 34.5"	<input type="checkbox"/> pass / fail	
Right Side-	Stated Height: 34.5"	<input type="checkbox"/> pass / fail	
<b>7) Bumper Cover Height</b>			
Top- 34 7/8" Max. at base of spoiler, on centerline		<input type="checkbox"/> pass / fail	
Bottom- 15" Max from ground to bottom of bumper cover		<input type="checkbox"/> pass / fail	
<b>8) Rear Overhang-</b> 47" max. from center of rear axle to base of spoiler at center			
		<input type="checkbox"/> pass / fail	
<b>Notes:</b>			



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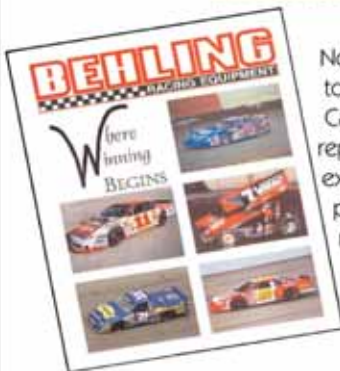


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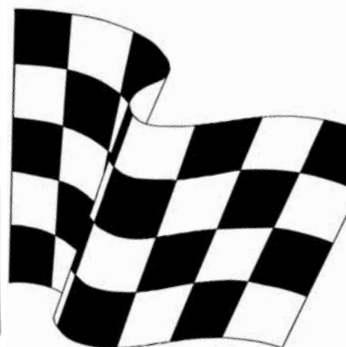
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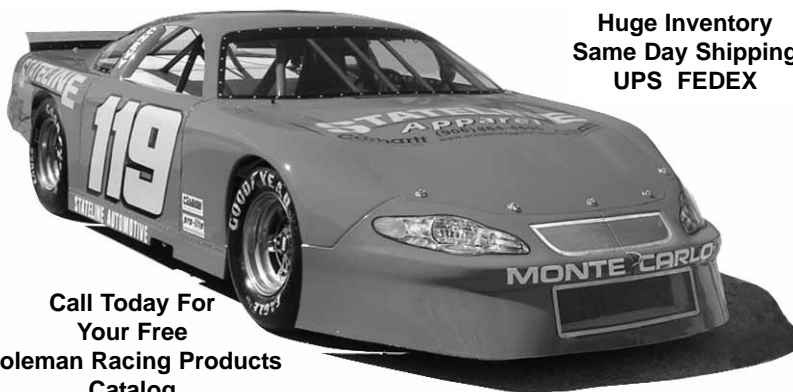
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