



**2006**

**Junior Kart  
Program  
Guidelines**

Portions of this manual are taken directly from the SCCA Solo Rulebook; refer to the current year rulebook for rules clarification.

## **Foreword**

The Junior Driver program is unlike others in Solo or SCCA. The age and inherent inexperience of the competitors requires special attention on behalf of the participants, parents and all regions which host Junior Driver classes at their events. Unlike other classes, SCCA strictly limits the ability of regions to modify or augment rules pertaining to the Junior Driver program. Event operation, safety and kart eligibility requirements of the Junior Driver rules must be followed closely.

This manual aims to help educate Junior Driver competitors, parents and region officials with regard to kart best practices and procedures. From how to properly tech a kart, to how to safely run grid and course, Junior drivers require special attention. This manual is designed to point out required and recommended procedures along with general kart information. In addition, it is intended to help educate those unfamiliar with karts about various motors, tires, etc. These guidelines are meant to supplement the current year Solo rulebook. Updates will be posted when necessary online via SCCA.com., in the “Garage” section. FasTrack is released monthly, and is the official publication of the SCCA for rules and information. The Solo Rules book, along with official updates, is the authority if there is a conflict with this booklet. Since Formula Junior is not subject to the same rules season as other classes, frequent reading of monthly FasTracks is critical.

Everyone in SCCA wants to insure the safety and enjoyment of the Formula Junior program. The Solo Events Board and Kart Advisory Committee members look forward to continued member suggestions based on what works best in your region.

## **From the 2006 National Solo Rules:**

### **2.6 KART SOLO EVENTS**

Solo events which will have karts competing must so designate on the sanction application. Prior approval is not required. The rules for organizing and conducting a Solo event with karts are found in Appendix G.

### **2.7 JUNIOR DRIVER PROGRAM**

A program is provided that allows regions to permit minors, under 16 years of age, to compete in Solo events in non shifter- based racing karts. The purpose of this program is to serve as a tool for membership recruitment and retention by providing competition opportunities for the entire family. The rules for organizing and conducting a Junior Driver program are in Section 19, Appendix G and Appendix H. As this program is still in the developmental phase, rule updates or clarifications may appear periodically in the FasTrack Section of *SportsCar* magazine.

Note: Publication in paper form of the FasTracks has been terminated. To allow for a more timely flow of information, they are now available online at SCCA.com under the SCCA Garage link. The SEB has referred to the online .pdf FasTrack files as an “official publication of SCCA”.

## **APPENDIX G - KARTS AT SOLO EVENTS**

### **I. APPROVAL PROCEDURE**

- A. Regions conducting Solo Events which will have karts competing must so indicate on the sanction application.
- B. A post event report describing the kart portion of the event should be submitted with the usual Audit Report Form. These event reports will be helpful to the SCCA in more effectively evaluating the kart program.

### **II. EVENT OPERATION PROCEDURES**

- A. 125cc shifter karts are the fastest karts allowed.
- B. Karts will not be allowed to be driven under power through the paddock; they must be pushed, either on the ground or on a portable stand.

- C. A grid area must be established that is either separated from the regular car grid or grid karts with similar sized vehicles such as formula cars. Traffic flow to and from the grid area must be controlled.
- D. If karts are allowed which require a push-start, such as shifter karts, the grid area must accommodate this need adequately.
- E. All karts will be run as a group or grouped with formula cars, and not intermixed on course with full-bodied cars. However, at the discretion of the Solo Safety Steward, the Event Chair, and the Chief Stewards, karts may be allowed on course with full-bodied cars if the course design allows for safe separation, such as the start and finish areas being remote from each other.
- F. Event procedures regarding karts will be announced at the drivers' meeting and will also be in written form for posting.

## **APPENDIX H - JUNIOR DRIVER PROGRAM**

### **I. RULES AND PROCEDURAL UPDATES**

As this program remains in the developmental phase, rule updates or clarifications may appear periodically in the FasTrack section of **SportsCar** magazine or [www.SCCA.com](http://www.SCCA.com)

### **II. EVENT OPERATION**

- A. All procedures described in Appendix G, Section II, and in Section 19.2 would apply. The Junior Driver Program may either be run incorporated into an event, run concurrently on a separate course, run after an event, or as a stand-alone event.
- B. In addition to the above, the following procedures would apply:
  - 1. Appointment of at least one Youth Steward. Two additional assistant Youth Stewards are recommended. Duties are described below.
  - 2. Conduct an additional driver's meeting for the Junior Drivers.
  - 3. Provide a small area for Junior Driver vehicle orientation.

4. Develop work assignments for Junior Drivers that are appropriate to their individual ages and background. An alternate to a traditional work assignment could be a safety training session. Either work assignments or training sessions will be under the supervision of the Youth Stewards. NOTE: Waiver duty is limited to persons above the age of majority of the state in which the event is held, however, Junior Drivers may assist an adult.

C. Youth Steward Duties

1. In conjunction with the event chairperson and event Solo Safety Steward, establish specific event procedures relative to schedule, grid and site layout, special instructions, Junior Driver vehicle orientation, etc.
2. Oversee the conduct of all Junior Drivers with the authority for disciplinary action including reprimand, time penalty, disqualification, expulsion from the site, and driver suspension.
3. Conduct a Junior Drivers' meeting that emphasizes safety, responsibility and event procedures.
4. Conduct a Junior Driver vehicle orientation session prior to competition runs for inexperienced drivers.
5. Lead at least two mandatory course walks for inexperienced Junior Drivers.

D. Pilot Program for Younger Drivers

Selected Regions will be allowed to have drivers 5 years old and older participating on Solo courses using Cadet carts with 3HP engines, as per WKF rules. The Solo course used could either be the regular event course during or after the event, or a totally separate course. Regions may only be approved for this pilot program if they have been running a Solo Formula Junior program for a minimum of one year, with at least four events conducted with Junior Drivers. The National Office, Solo Department, will issue the approvals to the Regions for participation in this program.

Note: The World Karting Association (WKA) approves “Kid Kart” or “Cadet Kart” chassis with Comer C-50 or C-51 engines for ages 5-7.

### III. JUNIOR DRIVER ELIGIBILITY

- A. SCCA member. Membership may be waived for first event.
- B. The minimum age is 8 years old. It is important that Solo Rules Section 1.4.N be strictly adhered to when Junior Drivers are participating. Formula Junior B drivers must be 8 years old before being allowed to compete. Formula Junior A drivers must be between 12 years old and 15 years old. Regions are free to adjust the FJB to FJA transition age (the year in which a child turns 12 years old) to accommodate their regional competition season. \* *This section updated per FasTrack March 2006.* \*
- C. Completed minor competitor waiver.
- D. Attendance at Junior Driver meeting and course walk

### Kart Eligibility

- I. Kart eligibility is limited to racing karts recognized and regulated by a national kart sanctioning organization (WKA, IKF, ISRA, NSKA, etc) with a maximum of one engine.
- II. It is the responsibility of the kart entrant to provide the rules to which their kart is eligible and prepared. The entrant has the burden of proving that the vehicle conforms to these Rules by the required documentation for the category/class, as noted below. The required documentation should be considered as an extension of these Rules. Current year GCR, and appropriate Category Specifications, plus any additional documentation required by those rules.
- III. Specific designation of classes is at the discretion of the hosting region as long as the above eligibility requirements are met.
- IV. Required Documentation
  - A. SR 3.8.D Formula 125, Formula Junior:  
For World Formula karts: Briggs & Stratton Performance Guide and Racing Log, which includes specifications and part numbers. For other approved karts: Technical manual including the specifications to which the kart was prepared.
- V. Kart Numbers

- A. SR 3.7.G  
Karts may use numbers and class letters of reduced size provided that the following conditions are met:
  - 1. Numbers must be displayed on the front and rear in addition to both sides
  - 2. Class letters must be on both sides
  - 3. In no case may the numbers be smaller than 6" in height with  $\frac{3}{4}$ " stroke, using a high-contrast color and background.
  
- B. SR 19.1.3  
Metal number plates to allow use of magnetic numbers are permitted.

## **Safety**

- I. Karts will be safety tech inspected as per applicable portions of section 3.3.3 of the Solo rules, plus those listed below. Particular attention must be paid to brakes, throttle action, and steering components.
  - A. Each of these items should be retained be either a cotter pin, safety wire or clip
    - 1. Brake rod clevis pin at pedal
    - 2. Brake rod clevis pin at master cylinder cotter pin
    - 3. Front spindle nut
    - 4. Steering arm / tie rod bolt(s)
    - 5. Steering shaft / tie rod bolts
    - 6. Steering wheel bolts
    - 7. Brake master cylinder(s) bolts
    - 8. Rear brake caliper halves
    - 9. Rear brake rotor bolts
    - 10. Fuel lines, oil breathers, overflow lines must be zip tied or safety wired at origin & destination
    - 11. Weights must be bolted with 5/16" bolts, double nutted or safety wired, NO ZIP TIES
  
  - B. The following should also be checked closely:
    - 1. Front and rear wheel nuts for tightness .
    - 2. Front and rear bearings tightness.
    - 3. Seat and bodywork positively attached to kart, seat inserts are allowed.
  
- II. SR 19.1.G. DRIVER SAFETY EQUIPMENT

- A. Neck Braces: An unaltered, collar type neck brace designed for motor sports use, is mandatory. Kart specific neck braces are recommended.
- B. Driver apparel: Drivers are minimally required to wear jackets of leather, vinyl or abrasion resistant nylon or equivalent, and full length pants to prevent or minimize abrasions. Full abrasion kart suits are recommended. Shoes, socks, and abrasion resistant gloves are mandatory.
- C. Seat Positioning: When normally positioned in the kart for competition, the entirety of the driver shall be within the perimeter of the kart and the driver must be able to reach and operate all controls. Loose cushions or pads that prevent the driver from being adequately supported by the sides of the seat are not allowed.

### III. SR 4.3.1 Helmets

Helmets meeting the following standards must be worn while on course: All helmets meeting the current or two immediately preceding Snell Foundation standards (SA, K, or M), or SFI standards 1.1A, 31.2A, 41.1A, or 41.2A are acceptable. FIA approved helmets which are acceptable for use in Rally events are acceptable for Solo events. For maximum protection, helmets must fit securely and should provide adequate peripheral vision. The chin strap must be securely fastened. Loaner helmets should be available to vehicle occupants not having their own.

Helmets of full face design must be used for formula junior competitors.

### IV. SR 4.3.3 Eye Protection

Face shield, goggles or similar face protection (conventional eyeglasses are not sufficient) shall be worn while competing in a sports racing car, formula car, special, or in any car with less than a stock size windshield.

- V. Junior Drivers are expected to follow the directions of the Youth Steward and should remain in the area designated as the kart grid at all times. Except during the course walk, Junior Drivers under 12 years of age are not allowed on the course, grid or any hot area, unless they are in or with their kart for their runs. All Junior Drivers must be able to learn and drive the course, know how to turn off their engine and display the ability to safely drive their kart.
- VI. A completed and signed Minor Waiver is required ([http://www.scca.org/\\_Filelibrary/File/minorreleaseform2.pdf](http://www.scca.org/_Filelibrary/File/minorreleaseform2.pdf)). In accordance with SCCA insurance guidelines, all competing and non-competing participants over the age of majority in the state in which the

event is being conducted must sign a Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement (form MS1.) Those under the age of majority must have a completed Minor Release and Waiver of Liability and Indemnity Agreement (form MS2 or MS2A) on file with the Registrar/Region. All competitors, except participants in the Junior Driver program, must also have a valid driver's license.

For competitors, the Minor Waiver form must be signed by both parents/legal guardians. For non-competitors, the form may be signed by only one parent/legal guardian on a per-event basis. If signed by both parents/legal guardians, the form is valid at all Solo events held in that Region for the remainder of that calendar year unless otherwise notified.

All parent/legal guardian signatures must be witnessed by an adult SCCA member. The Region may, at its discretion, require that any form completed off-site be signed and witnessed in the presence of an adult SCCA member or a Notary.

Copies of the original Minor Waiver form may be used at individual events or a Minor Photo ID card may be issued by the Region. Minors may not attend non-spectator events without a properly completed waiver [http://www.scca.org/\\_Filelibrary/File/minorwaivers.pdf](http://www.scca.org/_Filelibrary/File/minorwaivers.pdf) for additional minor waiver guidelines.

VII. SR 1.4.P

Karts may be serviced or have the engine running while on a kart stand without a driver on board.

VIII. SR 2.1.D

The Solo Safety Steward shall have the authority to disapprove a course or site for karts only, when there are upright solid objects (e.g. light poles, fence posts, etc.) on the site within 50 feet of the actual course. This does not include curbs. While safety systems for karts provide acceptable driver protection for most incidents, upright solid objects present potential hazard for which kart safety systems are not well suited. This rule gives the Solo Safety Steward the option of excluding karts without having to declare the site unsafe for everyone. It is up to the judgment of the Solo Safety Steward whether the course design, surface, solid objects, and type of karts running present an unsafe mix. In most cases, the situation can be resolved by a course design change.

## Classes

- I. Only recognized Formula Junior classes are to be run at SCCA Solo events. Competitors who would like to run a kart other than those specified in the Formula Junior rule set should contact the SEB for approval of their specific application. Such requests for classification of a kart into one of the existing Formula Junior classes should provide information about the kart chassis and engine, including the rule set to which the kart has been prepared. It is expected

that such karts will be prepared to the rules of a nationally recognized sanctioning body (e.g., WKA, IKF, CIK). *Comment:* this is intended to allow karts with lesser performance potential to be run in Formula Junior. No karts will be approved for Formula Junior competition that has performance potentials greater than the existing configurations in the classes. This explicitly disallows shifter karts of any displacement in Formula Junior

## II. SR 19.2 Formula Junior

### A. Classes

#### 1. Formula Junior B (Formerly FJ2 and FJ4)

AGE: 8 years to 11 years

- a. ENGINE: Briggs & Stratton Raptor.

FUEL: Gas or Methanol

WEIGHT: 245 pounds for gas-fueled karts and 250 pounds for methanol-fueled karts

OTHER: Balanced and blueprinted engines are allowed, but no Controlled Stock, Modified, Limited Modified or Open Motors

- b. ENGINE: Yamaha KT-100, only heads with OEM casting “Yamaha” and cylinders with YS or Y4 and 787 are legal  
If hole exists in pipe for EGT sensor, EGT sensor probe must be in place.

WEIGHT: 250 pounds

FUEL: Gas and Oil.

Carburetor and Exhaust:

1. Walbro WA55b or HPV1 with WA55B manifold-with RLV SSX-V exhaust or
2. Walbro WB3A carburetor and 0.600 restrictor plate with RLVYBX exhaust.

- c. ENGINE: Briggs and Stratton World Formula:  
As homologated except it is permissible to use an alternate chain! Sprocket/gear (type35).

FUEL: Gas

Restrictor: In 2005, an internal carburetor throttle stop and/or intake restriction must be used. Specifications for this throttle stop will be forthcoming in a future Fastrack.

WEIGHT: 275 pounds

- d. ENGINE: Comer K-80

FUEL : Gas and OIL

WEIGHT: 250lbs

Carburetor, exhaust and clutch as supplied with engine from manufacturer

2. Formula Junior A (Formerly FJ1 and FJ3)

AGE: 12 years to 15 years

- a. ENGINES: Briggs & Stratton Raptor.

FUEL: Gas or Methanol

WEIGHT: 280 pounds for gas-fueled karts and 285 pounds for methanol-fueled karts.

OTHER: Balanced and blueprinted engines are allowed, but no Controlled Stock, Modified, Limited Modified or Open Motors

- b. ENGINE: Yamaha KT-100, only heads with OEM casting "Yamaha" and cylinders with Y3 or Y4 and 78] are legal

A. CARBURETOR: Walbro WB3A.

B. EXHAUST: RLV SSX-V (4-hole).

FUEL: Gas and Oil

WEIGHT: 295 pounds

- c. ENGINE: Briggs and Stratton World Formula: As homologated except it is permissible to use an alternate chain! Sprocket/gear (type 35).

FUEL: Gas

WEIGHT: 275 pounds

3. Formula Junior Kid Kart (Approved regions only )

AGE: 5 years to 7 years

- a. ENGINE : Comer C-50 or C-51

b. FUEL: Gas and Oil

c. WEIGHT : 125lbs

d. Engine must be run in stock configuration using factory exhaust and carburetor

B. Chassis

Formula Junior will follow Section 19.1.A. Additionally Cadet sized chassis(overall length 69" wheelbase 35" minimum and 38" maximum) is approved for all engine configurations in FJB. All FJ karts will follow rules in section 19.1 items pertaining to construction material and ballast. (Comment: FJA (older kids) run the full sized chassis comparable to what

all the F125 eligible engines are run on. The cadet chassis provides a better fit for the smaller drivers in FJB.)

C. Clutches

For all classes, wet or dry clutches allowed. Jackshaft clutch drives for 2 cycle engines allowed, but must be securely fastened to the engine and/or engine mount. No frame mounted Jackshafts. Axle clutches are not allowed. World Formula clutches must be as homologated except if is permissible to use an alternate chain! Sprocket/gear (type 35).

D. Safety Equipment

1. Must follow 19.1.G. In addition to meeting the requirements of 4.3.1 helmets for formula junior drivers must be of closed face design, incorporating full face shields and chin bars.
2. Kill switches: All drivers must demonstrate the ability to shut down the engine both while driving and stationary. It is suggested that karts be equipped with an operational ignition kill switch for emergency shutdown of the engine. The switch should be within easy reach of the driver from the normal operating position.
3. Seats: It is not permissible to use any type of strap or seat belt. In the event a kart is upset, a driver must be able to exit the kart unrestrained by a seat belt or strap. It is recommended to utilize some form of seat insert and pedal extensions to fit drivers of different sizes to one seat.

E. Weight

The penalty for Formula Junior drivers who are under minimum weight will revert to the standards set forth in the SRB for all vehicles that run with minimum weight criteria.

F. Wheels and Tires

For all classes: maximum tire size for rear tires is 6.00/11. 0-5. Maximum size for front tires is 4.60/10-5. Tire compound is restricted to Bridgestone YHC or other tire manufacturer's models with durometer readings of 58 or higher. If a competitor has a tire not listed below, they must prove the durometer rating for the tires is 58 or greater.

Examples:	Tire	Durometer
	Maxxis HG1	60
	Maxxis HG3	60
	Maxxis HT3	60
	Dunlop DMB, DAH	58

Dunlop RH2, RH3	59
Dunlop SL4	60
Dunlop DBH, SL3	64
Dunlop DBC	66
Bridgestone YGC, YHC	58
Bridgestone YBH, YEY, YFG	59
Bridgestone YGJ	62
Bridgestone YGN	64
Bridgestone YBN, YDS	66
Burriss M-30	58
Burriss M-22, M-15B, SS-44	60
Burriss M-15A, SS-55	70
MG AZ	60
MG RN	74
Vega XLL 4.5 & 6.00	69
Vega SL8 4.5 Only	65
Vega SL7 4.5 Only	60
Vega XS 4.6 Only	59
Vega XT 4.6 Only	58
Vega S1 & H1 4.5 Only	73

G. Brakes

Front brakes are not permitted on Formula Junior karts.

## Youth Steward Guidelines

In general the Youth Steward should work closely with the Event Safety Steward to make sure that all of the Formula Junior needs are satisfied. Most issues can be resolved by just using some good common sense.

I. Youth Steward qualifications

- A. A minimum of two years SCCA Solo experience.
- B. Knowledge of karts and the karting world.
- C. Can be a Solo Safety Steward but cannot perform both duties concurrently during an event.
- D. It is strongly recommended that the individual have Email access for communication purposes.
- E. Completion of the Youth Steward Application which is available in the "Forms and Applications" section on <http://www.scca.org>. Application must include the signatures of the region Solo Safety Steward and the region's Solo RE or Senior Solo Leader.

- 1. Completed Application must be sent to the SEB for final approval.

## II. Minor Waivers

- A. Minor waivers are executed by the parent(s)/legal guardian(s), NOT the minor. Do not have minors sign adult waiver forms.
- B. “Minors” in almost all states is defined as anyone under 18. Check with your state’s authorities if you are uncertain.
- C. Waivers must be signed by BOTH parents or legal guardians for the child to compete. Both signatures are required for minors participating as drivers, passengers, course workers or in any capacity where they will be permitted to enter a “hot” restricted area such as the course and grid. Other minors may be admitted on a per event basis with one parent’s signature.
- D. If both signatures are obtained on a single waiver form, the waiver may be used as an “annual” waiver. See Guidelines for additional details

## III. Safety

- A. Assist event organizers and event safety steward with kart grid positioning. When ever possible, the kart grid should be set up in such a way that karts may enter and exit the course with out having to enter the normal car grid.
- B. Assist event safety steward in any and all Formula Junior driver issues as they arise.
- C. Scrutinize course design and track surface for compliance with kart specific course design rules (e.g. 2.1.D). The youth steward will report inconsistencies and safety concerns to the course designer, chief safety steward, and for national events, the national staff member who approved the course.

## IV. Drivers Meeting

- A. Formula Junior drivers should understand where they need to be and when.
- B. Driver Evaluation
  - 1. Does the child have previous kart driving experience?
  - 2. Are the child, parent and event safety steward comfortable with the child’s ability?
  - 3. Is the child scared of the kart?
  - 4. Does the child know how to turn off the motor?
  - 5. Does the child know how to stop the kart?
  - 6. Does the child when to stop the kart (end of run, broken steering, bad brakes.. etc)
  - 7. Does the child have the physical ability to quickly stop the kart?
  - 8. Test ability for child to hear/understand instructions.

V. Course Walk

- A. Junior drivers should have a good understanding of where the course goes and what the course markers mean i.e. gates, slaloms, pointer cones, etc.
- B. Create a separate junior driver trial course for learning.

VI. Event Operation

- A. Formula Junior drivers should stay in designated areas at all times.
  - 1. SR 1.4.N: Children under twelve (12) years of age and pets shall be prohibited in the staging, grid, start/finish and course areas. Drivers from five(5) to twelve (12) years of age who are participating in an approved Junior Driver program under the requirements of *Section 19.2* are exempt from this prohibition during their run group. Otherwise they too are prohibited from these areas. Furthermore, staging, grid, start/finish, and course workers should be at least sixteen (16) years of age. Drivers from five (5) to sixteen(16) years of age should be assigned to other worker duties as outlined in *Section 19*.
- B. Grid and safety personal should be aware of kart requirements and when they will be release to the course.
- C. If it's a hot day and you have kids in kart suits for an extended period of time, make sure that they do not get over heated.
- D. While Jr. karts are in motion, all normal car traffic everywhere should be stopped with the exception of that traffic that has been approved by the event safety steward.
- E. Adult assistance should be available at the beginning and end of each run.

## Technical Data & Photos



Briggs & Stratton Raptor



Briggs & Stratton World Formula



Yamaha KT-100SE



TS Racing



Walbro Wa55b Carburetor



TS Racing

Walbro WB3A Carburetor



RLV SSX-V Exhaust Can



TS Racing

RLV YBX Exhaust Can

## SAFETY AND INSURANCE

The first two paragraphs of Section 1.4 in the Introductory Section of the Solo Rules should be replaced with the following:

"Insurance Requirements - Refer to Introductory Section 10 of these Rules.

In accordance with SCCA insurance guidelines, all competing and non-competing participants over the age of majority in the state in which the event is being conducted must sign a Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement (form MS1.) Those under the age of majority must have a completed Minor Release and Waiver of Liability and Indemnity Agreement (form MS2 or MS2A) on file with the Registrar/Region. All competitors, except participants in the Junior Driver program, must also have a valid driver's license.

For competitors, the Minor Waiver form must be signed by both parents/legal guardians. For non-competitors, the form may be signed by only one parent/legal guardian on a per-event basis. If signed by both parents/legal guardians, the form is valid at all Solo events held in that Region for the remainder of that calendar year unless otherwise notified.

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