

USRA

UNITED SLOT RACERS ASSOCIATION

1971-2005

**RACING INTO OUR
4TH DECADE OF
NATIONAL CHAMPIONSHIPS**

2005

RULE BOOK

NATIONAL CHAMPIONSHIPS – SCALE DIVISION

Keystone Raceway, 2701 Horseshoe Pike, Palmyra, PA 17078
(717) 832-3170, www.slotcars.org/keystone

Tuesday, April 5	1/32nd Eurosport (UK Black), Expert GT-12 (UK Black)
Wednesday, April 6	1/24nd Eurosport (UK Black), C-12E (UK Black)
Thursday, April 7	Amateur GT-12 (King), Expert & Amateur GTP (King)
Friday, April 8	Expert & Amateur GP-10 (King)
Saturday, April 9	Junior Group 10 (Tri-Oval), Expert & Amateur GT1 (King)
Sunday, April 10	Expert & Amateur 4-1/2 Stock Car (Tri-Oval)

Amateur Group 10, 4-1/2, GT-1, GTP, GT-12, and Junior Group 10 will use handout motors.

NATIONAL CHAMPIONSHIPS – WING-CAR DIVISION

Buena Park Raceway, 6161 Lincoln Ave., Buena Park, CA 90620
(714) 827-9979, www.bparkraceway.com

Friday, August 12	Spec-15 Practice GP-12 Practice
Saturday, August 13	Amateur GP-12
Sunday, August 14	Expert GP-12, GP-27 Warm-Up
Monday, August 15	Amateur & Expert Intl 15
Tuesday, August 16	Amateur & Expert Cobalt 12
Wed., August 17	Senior GP-7, GP-7 Warmup
Thursday, August 18	Amateur Group 27
Friday, August 19	Expert Group 27
Saturday, August 20	Semi-Pro Group 7
Sunday, August 21	Pro Group 7

TABLE OF CONTENTS

Bylaws	5
General Competition Regulations	16
USRA Chapters.....	25
General Technical Rules	26
Spec-15	28
GP-12	30
International 15	32
Cobalt 12/15	33
Group 27	33
Group 7/Open	34
Approved Components for GP-12	35
C-Can Motor Specifications	40
Group 12 Armature Specifications	41
General Scale Competition Regulations	43
Group 10 Stock Car	44
Production 4-1/2 Stock car	48
GTP	51
GT-1	53
GT-12	54
C-12E	55
1/24th Scale Eurosport.....	56
1/32nd Scale Eurosport.....	56
Approved Components For Scale Cars	58

By accepting membership into the USRA as a racer or commercial member, you are agreeing to comply with all rules and bylaws in this rule book and not to bring any legal action against the USRA or any of its officers.

This document is provided for informational purposes only. The information contained in this document represents the current view of United Slot Racers Association on the issues discussed as of the date of publication. Because United Slot Racers Association must respond to changes in market conditions, it should not be interpreted to be a commitment on the part of United Slot Racers Association and the United Slot Racers Association cannot guarantee the accuracy of any information presented after the date of publication.

THE INFORMATION PROVIDED IN THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND FREEDOM FROM INFRINGEMENT.

The user assumes the entire risk as to the accuracy and the use of this document. This document may not be copied or distributed by anyone other than the National Chapter of The United Slot Racers Association.

UNITED SLOT RACERS ASSOCIATION

BYLAWS

ARTICLE I

A. DEFINITION OF BYLAWS

These bylaws constitute the code of rules adopted by the United Slot Racers Association (hereinafter USRA), for the regulation and management of its affairs.

B. PURPOSES & POWERS

The primary purpose of the Association is to establish rules and procedures to standardize the sport of slot car racing, and to further the general interests of all persons engaged in the hobby/sport of scale model slot car racing.

ARTICLE II – MEMBERSHIP

A. DEFINITION OF MEMBERSHIP

The members of this Association are those persons having membership rights in accordance with the provisions of these Bylaws.

B. CLASSES OF MEMBERSHIP

The Association will have the following classes of members: **General Membership** and **Commercial Membership**. Only General Members in good standing may enter sanctioned events.

C. MEMBERSHIP DUES

The membership dues payable to the Association by members will be in such amounts as may be determined from time to time by vote of the members. Dues are payable annually. Dues are US\$20.00 for General Membership at the national level, US\$25.00 for Raceway membership, and US\$50.00 for Commercial Membership, which are payable to the National Treasurer during the year, or at the National race event. Only products of USRA commercial members will be approved for use at USRA regional and national competitions.

D. VOTING MEMBERS

Each member will be entitled to one vote on each matter submitted to a vote of the members.

E. TRANSFERABILITY OF MEMBERSHIP

Membership in this Association is non-transferable and non-assignable.

F. TERMINATION OR SUSPENSION OF MEMBERSHIP

Membership will terminate or be suspended with this Association on any of the following events:

1. The death of a member.
2. Conduct detrimental to the sport, subject to the discretion of the Ethics Committee, will result in suspension.
3. Dishonesty with respect to the handling of USRA funds.
4. Commercial members found by the Ethics Committee to be operating outside the bounds of proper conduct either in the marketing and production of products or in violation of specific USRA rules with respect thereto will be subject to suspension or, in extreme cases, expulsion from the USRA. This action would, pursuant to Article XI, Section A, preclude their products from use in competition in sanctioned events for the duration of the suspension or, in the case of expulsion, until readmittance. Length of suspensions will be decided by the Ethics Committee after a full investigation. Such investigation will include a full and fair opportunity for the member and any other individuals directly involved to be heard in the presence of the Regional Director and at least one member of the Ethics Committee.

ARTICLE III – EMERGENCY CLAUSE

A. EMERGENCY RULE CHANGES

The USRA Ethics Committee may add, delete, or modify any rule(s) to insure fairness in the sport of slot car racing. All decisions will be final. In emergency situations, representatives must abstain from voting on issues which will affect their firms directly.

ARTICLE IV – OFFICERS

A. ROSTER OF OFFICERS

The officers of this Association are charged with the responsibility of conducting general business in the name of the Association at the national level, to include the publication and administration of rules, the management of the Association's financial affairs, publicity in any medium, and other necessary business, and said officers are hereby granted such authority.

1. National Director
2. Assistant Directors
 - a) One Director for each Division of racing
3. Communications Director
4. Treasurer

5. Technical Directors
 - a) One Director for each Division of racing
6. Assistant Technical Directors
 - a) One Director for each Division of racing
7. Tech Advisors
 - a) One Advisor for each Class of racing

B. SELECTION OF OFFICERS

The officers will be elected annually by vote of the general membership of the Association at the national meeting. Each officer will remain in office until a successor to such office has been elected and qualified. The change-over date will be on October 1 for the Wing-Car Division. The Scale Division change-over date will be June 1.

C. NATIONAL DIRECTOR

The National Director will chair the general membership meeting, and will have full and final authority to make decisions on technical matters which have not been approved by vote of the members of the Association. He/she has the authority to cancel or relocate the site of the USRA Nationals, in accordance with the national rule book procedures. He/she has the responsibility of ensuring that the rule book is updated in accordance with the annual vote of the membership. The National Director may not be a manufacturer, owner, or employee of any company manufacturing or distributing products used in USRA racing.

D. ASSISTANT DIRECTORS (Wing-Car & Scale Divisions)

The Assistant Directors will perform all duties when the National Director is absent or is otherwise unable to act. The Assistant Director of each Division will exercise control over their respective Division. The Assistant Directors may not be manufacturers, owners, or employees of any company manufacturing or distributing products used in USRA racing.

E. COMMUNICATIONS DIRECTOR

The Communications Director will be the custodian of the Association records, will give all notices as required by law, or by these bylaws, or which may be assigned from time to time by the National Director. It shall be the responsibility of the Communication Director to publish all the following in accordance with the rules and in a timely manor: current rulebook, decisions by Committees, Committee memberships, voting proposals, voting results, contact info for regional representatives (as available) and National Championship results. All other material on the USRA official website is subject to the approval of the National Director.

F. TREASURER

The Treasurer will be responsible for the collection of dues from the membership, and for the preparation of an annual report on the finances of the Association. He/she will be responsible for the distribution of the National USRA Rulebook to the membership.

G. TECHNICAL DIRECTORS (Wing-Car & Scale Divisions)

The Technical Directors will be responsible for the review of technical specifications proposed in rules changes and for the technical inspection for rules compliance of entries in National Championship events. He/she will be a member of the Committee reviewing equipment modifications (which have not been approved by membership vote) for acceptability in USRA competition, and will head the Technical Committee. The Tech Directors may not be manufacturers, owners, or employees of any company manufacturing or distributing products used in USRA racing.

ARTICLE V – COMMITTEES

A. OFFICIAL COMMITTEES

The Association may create certain committees which will have and exercise specific prescribed authority in the management of the Association. These committees shall include, but not be limited to, the following:

Bylaws Committee - This committee will consist of a minimum of three (3) members;

Rules Committee - This committee will consist of a minimum of three (3) members;

Nationals Committee;

Product Approval Committee - This committee will consist of a minimum of three (3) members;

Ethics Committee - This committee will consist of a minimum of ten (10) members;

Publicity Committee;

Board of Directors - A committee consisting of seven (7) members will be charged by the USRA to make decisions outside of the normal rule change voting procedures defined in the current rule book. This committee will be composed of members who desire the USRA to grow and prosper and to become a professionally-managed organization for the positive benefit of slot racing. Members desiring to volunteer time and resources to the USRA should submit a resume to the USRA National Director who, along with the current Wing-Car and Scale Directors, will select the best candidates to serve on this committee from all submitted resumes. There will be an odd number of members on this committee to prevent tie votes in the decision-making process. Membership on this committee shall be participants in the slot racing industry and will include: one racer, one distributor, one raceway owner, one manufacturer, the National Director, the Wing-Car Division Director, the Scale Division Director, and two at-large members.

B. COMMITTEE MEMBERSHIP

Members of these committees will be appointed by the Board of Directors and approved by a majority of all Directors. The Product Approval Committee will consist of three (3) members who are not manufacturers,

owners, or employees of any company manufacturing or distributing products used in USRA racing.

C. BOOKS & RECORDS

The association will keep correct and complete books recording all receipts of Association income and all disbursements of expenses incurred by the Association.

D. NON-PROFIT OPERATIONS

The Association will not have nor issue shares of stock. No dividend will be paid and no part of the Association's income will be distributed to its members or officers. However, the Association may pay reasonable compensation to members or officers for expenses incurred on behalf of the USRA.

ARTICLE VI – AMENDMENT & MODIFICATION OF BYLAWS AND TECHNICAL RULES

A. Voting for National Director and Changes to Bylaws affecting both Scale and Wing-Car divisions.

1. There shall be an annual online/postal vote held to elect the National Director.
2. There shall be an annual online/postal vote held to elect the National Communications Director.
3. There shall be an annual online/postal vote held to vote on any changes to the Bylaws of the USRA, or any other matters affecting more than one division of racing.
4. A USRA official will be appointed by the National Director each year to officiate in the voting. This officials name will be published on the USRA website along with contact details.
 - a) Proposals and nominations for this vote will close on the 31st of July
 - b) Each fully paid member is entitled to one vote, providing the vote reaches the appropriate USRA official in charge of the voting on or before the 30th of September, in the correct form.
 - c) Voting papers showing all proposals will be mailed to every USRA member before September 1st. Members must either mail their vote to the USRA using the official USRA voting form, or may vote online at the USRA website <http://www.usra.us> using the official voting form.
 - d) Votes without a current membership number and matching name will not be counted.
 - e) Any ties will be broken by a vote of the Board of Directors

B. Amendments to technical specifications will require a simple majority vote of the membership present at the General Meeting.

C. Format of Proposed Rule Changes

1. Rule proposals must include an explanation of how they will impact the current rule book. Proposals that do not fully and clearly state how the pro-

posal, if passed, will change the rule book will not be considered for voting by the membership.

2. Proposals may not be changed once brought to the vote of the general membership. A printed ballot will be handed out and no changes will be allowed to the ballot once the meeting begins.
3. The USRA Director or his designee shall be present at the General Meeting and all pre-meetings for the purpose of announcing the proposals and counting votes. The voting results, including exact counts, shall be made public within 30 days of the General Meeting.
4. The next year's rule book for both divisions must be publicly available via the USRA Website no later than December 1st following the Nats

ARTICLE VII – ORGANIZATION

A. For various administrative purposes, the 48 contiguous states, Hawaii, Alaska, and Canada shall be geographically divided into 5 areas:

1. West
2. Intermountain
3. Midwest
4. South
5. East

Refer to Article XII section E for the definition of areas.

B. Each area will be headed by a Director appointed by the National Director. It will be his/her responsibility, by working with the respective regional and neighboring area directors where appropriate, to coordinate series events within the various regions to avoid, to the greatest degree possible, conflicts of race dates. Further responsibilities include publication of this race schedule, and responding to requests by members for same. He/she will also serve as arbitrator of disputes at the regional level, consulting the other Area Directors, and National Director as required.

C. Any number of regional associations may be organized within the geographic areas. In addition to the executive duties at the regional level, the Directors of these regions shall make up the competition committee at the national level, with responsibilities to include National Event site selection, and setting of the agenda for the national general meeting.

D. Regional Associations are encouraged to organize and promote annual series championships for each division in accordance with the National Rules.

1. Wing-Car Division: traditional Group & Open racing classes, various Wing Cars.
2. Scale Division: non-glue classes, various Scale Cars.

E. To apply for consideration as a USRA regional entity, the following procedures and limitations must be observed:

1. The prospective region must have a minimum of 20 (twenty) regional dues-paying members.
2. The prospective region must file a list of officers and a projected race schedule with the appropriate Division Director by October 31st of each

year and co-ordinate schedules with the Division Director by November 30th each year.

This list is to be published by the USRA by December 31st each year for both divisions.

3. A region that wants to be part of more than one division must register their region with each appropriate USRA Division Director. Before a region will be accepted by a Division Director it must satisfy the Division Director that it does regularly run races for that division.

This can be established by looking at memberships lists for more than the last year as well as race results and championship standings. The final decision rests with the Division Director.

4. The prospective region must have organized and run a race series utilizing rules conforming to the National USRA rules (with minimal modifications permitted) for at least one season.
5. The regional racing series must include events scheduled for at least three separate raceways. The Division Director may waive this requirement in special circumstances (usually geographical) on the condition that the series will meet the requirement should those conditions change.

ARTICLE VIII - PURPOSE OF COMMITTEES

- A. *Bylaws Committee*: It shall be the duty of the Bylaws committee to plan, organize, and make recommendations for changes in the bylaws.
- B. *Rules Committee*: There will be a Rules Committee for each Division which will review, recommend, and update proposed rule changes. Prior to any rule change becoming final, it must be voted on by the Ethics Committee with final publication in the National Rule Book for the membership.
- C. *Nationals Committee*: It shall be the duty of the Nationals Committee to plan, organize and oversee the National Championship events, to include publishing a Nationals booklet, establishing race entry fees, soliciting and distributing race prizes, and conducting the registration, technical inspection, and operation of the events.
- D. *Product Approval Committee*: It shall be the duty of the Product Approval Committee to propose and recommend changes to the Ethics Committee. The National Technical Director and Assistant Technical Director will be members of this committee.
- E. *Ethics Committee*: The Ethics Committee will have the responsibility of monitoring the compliance of Commercial Members with the USRA Rules and bylaws. There shall be one committee each for the Wing-Car Division and Scale Divisions. Any member of the Ethics Committee may bring an item to the Ethics Committee for consideration.
- F. *Site Selection Committee*: This Committee will be comprised of the Regional Directors and the National Director and will have the responsibility of determining the site for the USRA National events.
- G. *Publicity Committee*: It shall be the responsibility of this Committee to promote the USRA through all forms of media available. This Committee will

further have the responsibility of contacting commercial sponsors for sponsorship of slot racing events in all divisions.

H. *Technical Committee:* Technical issues shall be determined by a committee with the following membership and responsibilities:

1. The National Tech Director shall be the chairman of the committee.
2. Each class shall elect a Technical Advisor to sit on the committee.
3. The Tech Director and the individual class Technical Advisors shall decide national issues for that class. If an impasse exists, then the USRA National Director shall have the tie-breaking vote.
4. The Tech Advisor will be involved in teching the class at National Events.

ARTICLE IX – GENERAL MEETING

A. ANNUAL MEETING

A general meeting will be held annually in conjunction with the National Championship events. Business will include:

1. Presentation of the Division’s financial report.
2. Presentation of rule changes recommended by members for consideration. Proposed changes must be submitted in good form to the appropriate National Director at least sixty (60) days prior to the National Championship events.
3. Election of divisional officers.

B. DIRECTORS MEETING

An executive work session will be conducted prior to the annual General Meeting to formulate the agenda for the General Meeting. The meeting will be open to all officers at the regional and national level and their guests. Commercial Members are invited to this meeting for advice on technical matters. Voting is restricted to Regional Directors or their authorized surrogates.

C. CLASS MEETING

There shall be a meeting for each class following qualifying or at another appropriate time, and rules relating specifically to that class shall be decided at that time.

ARTICLE X – EQUIPMENT APPROVALS

- A.** Manufacturers of products who wish to have their components accepted for use in restricted classes in USRA sanctioned events at the national or regional level must be Commercial Members of the Association and must conduct themselves in a manner conducive to the best interests of the sport.
- B.** Manufacturers must submit one piece of each component for which they seek approval to the respective Divisional Director by August 1 for evaluation and inspection.
- C.** Each Divisional Director will report their findings and decisions directly to the USRA National director.

- D. Each manufacturer must notify in writing all distributors and raceways of any and all new products by Sept. 1 each year.
- E. Before being approved for USRA competition the product must be commercially available at distributors and/or retailers by October 1.
- F. The director will notify the manufacturers of approval or non-approval for the following year's Wing-Car or Scale National Championships.
- G. The National Tech Directors may remove any restricted products that they can prove are no longer commercially available. Refer to *General Competition Regulations, Commercial Availability*.
- H. The products submitted to the USRA for product approval are the property of the USRA, and not the individuals in the respective positions of the USRA. All products are to be available for inspection at the Nats. Products must be turned over to the incoming Tech Director by the outgoing Tech Director.

ARTICLE XI – RACER SPONSORSHIP

- A. Any racer who receives merchandise directly from any manufacturer at less than retail price is considered a sponsored racer.
- B. Level 1 (Major) Manufacturers (defined as complete line manufacturers) may sponsor two drivers maximum per region plus four wild cards total.
- C. Level 2 (Minor) Manufacturers (defined as specialized manufacturers) may sponsor one driver only per region plus two wild cards total.
- D. Employees of manufacturers are exempt from this rule and evidence of employment must be proven to the USRA by two of the following means: Canceled check, W-2 Form and/or 1099 Form.
- E. The Ethics Committee will decide the level of the manufacturers.
- F. Each manufacturer with sponsored racers will submit a list of them to the National Director along with the manufacturer's annual membership dues.

ARTICLE XII – SANCTIONED RACING EVENTS

A. NATIONAL CHAMPIONSHIP

1. A National Championship shall be conducted annually for each division of USRA (i.e., major racing category).
2. All entry forms and/or tech sheets are and will remain the property of the USRA. All of these forms must and will be turned over to USRA officials only.
3. Once the hosting track has been established, the actual Nats race schedule will be determined in collaboration with the hosting track and the USRA Divisional Director. Once a mutual agreement is decided upon by both parties, the final schedule will be sent to the national director for final approval.

B. SPONSORSHIP

USRA sanctioned events shall not take on the name of any company nor individual engaged in commercial sale of, or production of, products sold for the purpose of slot racing nor any entity deriving commercial benefit from the sport of Slot Car Racing. This would not preclude a retail establish-

ment from normal promotional billing, but would specifically exclude manufacturers or distributors from usurping the USRA image for their benefit. There are no such restrictions placed on major corporations not operating in or affiliated with persons or firms operating commercially in the sport of slot car racing, and such outside sponsorship is encouraged.

C. NATS SITE SELECTION VOTING PROCEDURE

1. The following voting procedure will be used at the annual meeting of both the Wing and Scale divisions. All fully-paid up members of the USRA present at the annual meeting are entitled to vote for the site of the next years National Championships in that division. A written ballot will be used for all voting. There will be one vote to reduce the number of sites to two from the nominated list. Should there be a tie in this first vote, a complete re-vote will be held. Results will be announced and recorded immediately at the conclusion of the voting, including actual numbers of votes for each site. The voting papers will then be destroyed. Once the two sites are identified, another written ballot will be held to select the site for the next year's National Championship. Results will be announced and recorded immediately at the conclusion of the voting, including actual numbers of votes for each site. The voting papers will then be destroyed.
2. If the raceway which is selected to host the USRA Nats is sold or closes, the race automatically goes to the alternate location. (This does not mean that if a slot car track is sold and replaced in the same location, under the same owner, the race will be moved; only if the slot racing business itself changes hands). If the alternate site also has been sold or closed, the USRA president must either:
 - a) Select a new site to host the National Championship.
 - b) Cancel the race for that year.

D. BIDDING ON NATIONAL EVENT

Any raceway or persons involved in slot car racing may make a bid to host a National Event. Following is a list of guidelines which may be helpful in preparing presentations.

1. The raceway or promoter should be well established with a reputation for organizing and directing quality races. Raceways which have hosted well-attended events will receive preference in the selection process.
2. If it is desired to submit a bid for a USRA National event, a raceway must notify the USRA Director of its intentions to do so. This must be accomplished in writing no later than ninety (90) days prior the current year's National Event.
3. Each bid for the USRA Nationals will be accompanied by a refundable deposit of US\$500.00 (cashiers check or money order). Deposits will be returned promptly to the unsuccessful bidders after the Nats site determination is made. The deposit for the successful bid will be returned after the National Event (two weeks) provided there are no financial problems such as bad checks, failure to deliver advertised pay-outs, etc. If financial

problems occur, the deposit will be forfeited and the USRA treasurer shall use the full amount of the deposit funds to correct bad checks or other losses in an equitable way. The disbursement of Nats site deposit funds, if any, is to be included in the treasurers report.

4. The bids for the next National Events are presented at the General Meeting during the current year's Nationals. Presentations should include:
 - a) Pictures of the raceway or host site, and of previous races (if possible).
 - b) A summary of selected past races, including race schedule, number of entries, etc.
 - c) Details about the facility's track(s) and lap counter system(s), including information concerning track power, batteries, color, braid recess, power polarity, etc.
 - d) Information concerning lodging, airlines, restaurants, and places of interest.
 - e) Pictures of available pit space.
 - f) Letters of approval from local City Directors, and radio and/or television stations.
 - g) A mock race schedule of dates, times, and activities for each day of the National Event. This is a requirement that must be included in any bid.
 - h) Presentations should be submitted in book form (such as a photo album) for all interested parties to view. Two or more copies of the presentation would be advantageous.
 - i) It is strongly suggested that prospective Nats raceways consult at length with the owners and/or managers of previous Nats host raceways to insure a complete understanding of the challenges attendant to conducting a USRA Nats.
 - j) Each bid for the National Event must include financial details of the race to include: guaranteed purse, entry fees, warm up race entry fees, pay-outs, cost of track time, etc.



E. SITE ELIGIBILITY AND AREA ROTATION

In order to encourage participation by racers nationwide, the National Championships shall be moved around the country every year. The National Championship may not be held in consecutive years by the same or adjoining areas unless there are no other bids. The map on the preceding page shall be used to define areas.

GENERAL COMPETITION REGULATIONS

I. DRIVER CLASSIFICATION (Wing-Car Division)

A. AMATEUR

1. Race prize payout will be in merchandise certificates and/or trophies, with at least 50% payback to top 8 finishers in a particular class.
2. Car classes will have Amateur and Expert Divisions as defined below:
 - a) Spec-15: Amateur only
 - b) GP-12: Amateur and Expert
 - c) International 15 (15A): Amateur and Expert
 - d) Cobalt 12/15: Amateur and Expert
 - e) Group 27: Amateur and Expert
 - f) Group 7: Semi-Pro and Pro
3. Any racer who has won a USRA National Championship in any Amateur Division, or who has finished in the top three places prior to 2003 in a USRA National Championship event can only compete in the Expert Division in the same (and any lower) class.
4. Amateur racers may enter any Amateur Division with these exceptions:
 - a) Spec-15 racers may only race Spec-15 and Amateur GP-12.
 - b) A racer may not run both Amateur GP-12 and Semi-Pro Group 7 at the same event.
 - c) No Amateur or Semi-Pro entrant may also race Pro Group 7.
 - d) No Pro Racer may enter any Amateur Division in any class.
 - e) No racer who has raced Pro Group 7 at the Nats in the past five years may enter any Amateur Division.
 - f) No racer may race both the Amateur and Expert Divisions of any class at the same Nats.

B. PROFESSIONAL

1. Race prize payout will be in cash to Pro Group 7, Senior Open, and Sponsored Pro Group 27 racers. Amateurs competing in Pro Group 27 will receive merchandise prizes.
2. Pro Group 7:
 - a) All drivers with exceptional driving ability.
 - b) Any driver sponsored by a major manufacturer.

3. Pro Group 27:

- a) All drivers with exceptional driving ability.
- b) Any driver entering Group 27 who is sponsored by a major manufacturer must race in this class, i.e. cannot race in Amateur Group 27.
- c) Any driver entering Group 27 who has won the National Championship in Group 27, Semi-Pro Group 7, or Pro Group 7 must race in this class, i.e. cannot race in Amateur Group 27.
- d) Any driver entering Group 27 who has entered the Pro Group 7 class at the National Championship in the past five years must race this class, i.e. cannot race in Amateur Group 27.

C. SENIOR OPEN

All drivers age 45 or over are permitted in this class. Pro Group 7 rules will be followed.

II. COMMERCIAL AVAILABILITY

- A. Major components for Group and restricted racing (motor, motor parts, chassis, chassis parts, bodies) must be readily available to all participants sufficiently in advance of the race event for all participants to be able to compete on an equitable level.
- B. “Commercially-available” means that the product must be readily available through retailers and/or three (3) national USRA member Commercial Distributors by October 1 of the year prior to the USRA National Event (or other USRA competition event in which they will be used).
- C. The number of pieces required to be available for a product to be considered commercially-available is 250 pieces for GP-12/15 motors, tagged armatures, restricted chassis, any other restricted component, and bodies.
- D. A product will be considered to be no longer commercially-available after production has ceased. Products in this status which have been approved for competition will continue to be legal for USRA competition for a period of no longer than 2 years after production ceases.
- E. All products which are considered to be commercially-available as well as restricted products must meet retail specifications and must be sold at standard industry discounts through approved dealers. Any product that is restricted in retail price by the USRA may be adjusted in retail price according to the annual cost of living, maximum 5% annually. These items include: Group 12, 15, and 27 armatures, and GP-12 chassis.

III. RACE PROCEDURE

A. REGISTRATION

- 1. All cars shall be inspected and impounded prior to qualifying.
- 2. No cars will be accepted after announced registration closing time.
- 3. The chassis should be engraved with the drivers entry number, class, and the initials of the tech inspector. The body should be marked with a distinctive spot of non-removable paint or ink.

B. ACKNOWLEDGMENT

All racers entering an event should be aware of the rules governing it, and withdrawal is not an option in the case of a protest.

IV. NO SMOKING

Smoking is prohibited within the raceway at all USRA events.

V. NO ALCOHOLIC BEVERAGES

No alcoholic beverages may be consumed within the raceway or within close proximity. Consumption of these beverages must be confined to those establishments licensed for this use.

VI. DRIVERS MEETING

It is suggested that a drivers meeting be held prior to qualifying to discuss race and qualifying procedures, marshaling responsibilities, racer conduct, glue rules, track calls, disqualifications, track tech, etc. Drivers with specific questions should ask them at this time.

VII. TRACK PRE-REQUISITES

In all USRA events, qualifying voltage for all classes will be limited to a maximum of 16.0 volts, and race voltage will be limited to a maximum of 14.0 volts. This voltage is to be measured, unloaded, without the cars on the track, using accurate digital voltmeters to measure the values.

VIII. TRACK CONDITIONS

A. LIMITED GLUE

1. Glue zones must be clearly marked, and be no more than ten inches in length as measured from the start of the curve backwards. Glue may be applied to glue zones only and then may be spudged or smoothed past zone & through turn with glue spudger and/or hand (fingers).
2. Glue may be removed from the turns with a clean, dry, rag only. Care must be taken to avoid changing conditions on adjacent lanes.
3. All gluing and cleaning of the track braid and straights must be completed before the power comes on. No glue or other chemicals may be put down or removed from the track surface while the track power is on.

B. SPRAY GLUE

1. The track will be cleaned and sprayed prior to the racing and maybe re-sprayed as deemed necessary by the race director(s).
2. The track surface in the turns may not be touched or altered in any way. In addition, deletion, or redistribution of the glue is allowed without specific and prior race director approval.

C. TRACK CLEANING

All braid and the track surface of all straight sections may be cleaned in both spray glue and limited glue conditions.

D. ACCIDENTAL SPILLAGE

If an accidental spill occurs, the race director may re-spray the affected area to restore fair racing conditions.

PLEASE NOTE:

Most track cleaning solutions are very FLAMMABLE! Care must be taken during their use. Fire extinguishers MUST be located in the immediate area and all other necessary precautions MUST be taken to insure adequate safety!

IX. QUALIFYING

A. ORDER

1. Pro Group 7: Determined randomly, such as by blind draw.
2. Other classes:
 - a) Limited glue - Qualifying will be in reverse order of registration.
 - b) Spray Glue - Qualifying will be in order of registration.

B. FORMAT

1. Time - A two minute run is allowed to establish the fastest single timed lap. Back up times will be recorded to break ties. Spec-15 class will not qualify. Lanes will be chosen at random. Amateur GP-12 will run a one minute no-bye round of qualifying.
2. The first qualifier will receive one extra minute qualifying time.
3. Byes - A racer may take one bye for any reason (may abort initial qualifying attempt and re-attempt during the bye round).
 - a) Thirty seconds will be deducted from the racers remaining time as a penalty for using a bye.
 - b) Cars will be technically inspected prior to their bye round.
 - c) Times made during the initial attempt and the bye round will count.
 - d) Byes will be run (racers remaining time less a thirty second deduction) at the end of qualifying for each respective class; order will be the same as the original round.
4. If a lap timer is not available, qualifying may be conducted in the form of a one minute run for total laps and sections. Adequate marshaling must be available.
5. Each racer will be given a specified amount of time (not to exceed fifteen seconds) to get hooked up to begin his/her qualifying round. This should be set into the computer to automatically start the time and make it uniform for

all racers. Any registered racer not present to qualify when called will be given an automatic bye. Any racer unavailable for the bye will stand by his/her previous best, or if no times are recorded, will be placed in the first (lowest) level of consolation races.

6. Local Option Format (excluding National Competition):
 - a) One minute with no byes.
 - b) One minute with bye with no loss of time.

X. EUROPEAN (STAGGERED) LANE ROTATION

- A. USRA events will follow the European or staggered system. The rotations for tracks marked with American Model Raceways colors are as follows:
 1. **Consis** - Racers will race on either the red or the black set. Racers on the red set (red, green, blue, purple) rotate down the track to purple and then jump to red continuing rotation down the track. Racers on the black set (black, yellow, orange, white) rotate up the track to white and then jump back to black continuing rotation up the track.
 2. **Quarterfinal, Semi, and Main Event races** - Racers running on the red set rotate down the track to purple, keeping on the red set. After running purple, rotate to the black lane of the black set. After running white, jump to red and rotate as indicated for the red set. Continue until all eight lanes have been run.

XI. AUSTRALIAN RACE FORMAT

- A. All entrants will contest a series of Consis, Heats, Quarterfinals, Semifinals and Finals depending on the number of entries.
- B. All races designated as Consis will be contested over 4 lanes only, running on either the red set (red, green, blue, purple) or the black set (black, yellow, orange, white).
- C. All other races will be contested over 8 lanes.
- D. All races will be on a “move-up” basis. The following schedule has been adopted to ensure that a minimum of four drivers will move up from each race.
 - 1-8 entries:** Final only
 - 9-11 entries:** Round Robin
 - 12-22 entries:** two Round-Robin Semis and Final. Top 4 in each Semi move up.
 - 23 entries:** one Round-Robin Heat, two Semis, and Final. Fastest 12 qualifiers into Semis - top 4 in Heat move up.
 - 24-44 entries:** Four Quarterfinals, two Semis, and Final. All entrants start in Quarterfinals, top 4 in each move up to Semis, top four in each Semi move up to Final.
 - 45-46 entries:** Two Round-Robin Consis, four Quarterfinals, two Semis, and Final. Fastest 24 qualifiers into Quarterfinals, top 4 in each Consi move up.

47-60 entries: Four Round-Robin Consis, four Quarterfinals, two Semis, and Final. Fastest 16 qualifiers into Quarterfinals, top 4 in each Consi move up.

61-76 entries: Four Sub-Consis, four Consis, four Quarterfinals, two Semis, and Final. Fastest 16 qualifiers into Quarterfinals, qualifiers 17-32 into Consis, top four in each race move up.

more than 76 entries: For races with over 76 entries create Sub-Sub-Consis (and Sub-Sub-Sub-Consis if needed) using the same procedures as for Sub-Consis. Top four in each race always move up.

E. Lane choice will be determined first by qualifying position then by lap total and position from previous heat.

F. In moving racers up from Consis, Quarterfinals, or Semis, the same logic applies. Lane choice selection order is determined by the total laps turned by the winners of the qualifying race.

1. For main event move-ups first pick goes to the racer with the most laps out of the two Semis, second pick goes to the racer with the most laps out of the other Semi.

2. Choices are then alternated between Semis. Third pick goes to the second-place finisher in the Semi that had first pick, and fourth goes to the second-place finisher in the Semi with second pick, etc.

G. Racers are seeded into the appropriate Semis, Quarterfinals, or Consis according to the following pattern (example given for Semis and Quarterfinals; Consis same pattern as Quarterfinals).

24 or fewer entries

Semi-A

Semi-B

Qualifier #

1

2

3

4

5

6

7

8

9 or winner Heat-A

10 or winner Heat-B

11 or second Heat-A

12 or second Heat-B

13 or third Heat-A

14 or third Heat-B

15 or fourth Heat-A

16 or fourth Heat-B

25 or more entries

Semi-A

Semi-B

Quarter A or B winner w/most laps Quarter C or D winner w/most laps

Other winner of Quarter A or B

Other winner of Quarter C or D

Second place from Quarter with first pick

Second place from Quarter with second pick

Continue alternating for remaining picks

Quarterfinal-A	Quarterfinal-B	Quarterfinal-C	Quarterfinal-D
Qualifier # 1	2	3	4
8	7	6	5
9	10	11	12
16	15	14	13
17	18	19	20
24	23	22	21
25	26	27	28
32	31	30	29

H. Heats, Consis and Quarterfinals are run: D, C, B, A.

I. Semis are run: B, A.

XII. DURATION OF RACES

Race	Segments	Segment Length	Lane Change
A. Mains			
1. Pro/Semi-Pro Group 7	8	5 minute	4 minute
2. Group 27/Pro 27	8	4 minute	4 minute
3. All other Wing-Car Divs	8	3 minute	4 minute
B. Semis			
1. Pro/Semi-Pro Group 7	8	3 minute	3 minute
2. Group 27/Pro 27	8	2 minute	3 minute
3. All other Wing-Car Divs	8	2 minute	3 minute
C. Quarterfinals			
1. Pro/Semi-Pro Group 7	8	2 minute	3 minute
2. Group 27/Pro 27	8	2 minute	3 minute
3. All other Wing-Car Divs	8	2 minute	3 minute
D. Consis & Sub-Consis			
1. Pro/Semi-Pro Group 7	4	3 minute	3 minute
2. Group 27/Pro 27	4	2 minute	3 minute
3. All other Wing-Car Divs	4	2 minute	3 minute

XIII. MISCELLANEOUS PROCEDURES

A. BLACK FLAG

The race director is obliged to black flag any car which is dragging, interfering with other cars, or continuously de-slotting due to mechanical problems. Upon being black-flagged, the driver must bring the car in for repairs immediately. If the problem is not corrected, the black flag may be enforced again as required.

B. TRACK CALLS

In Scale Division, riders will be track calls.

1. The power will only be turned off for extremely unfair or dangerous situations. The following are the only acceptable reasons:
 - a) Braid up
 - b) Power failure (one lane or all)
 - c) Debris in slot
 - d) An unmarshalled car
 - e) Lap counter or track equipment failure
2. During a track call, there will be absolutely no work performed on the cars or lane preparation. Doing so will result in a 20-lap penalty. A second infraction will result in disqualification. This restriction applies to both drivers and their pit helpers.

C. LAP COUNTER

1. The lap counter will be considered correct unless it can be proved otherwise. The counter should be corrected if necessary (as when a car crosses in the wrong lane). If a major error occurs in the counting process that cannot be corrected, the race director may at his option:
 - a) Assign responsible stewards to count laps or verify the counter.
 - b) Add or subtract mutually-agreeable laps as established by race officials and drivers.
 - c) Restart the segment.
 - d) Restart the race from the latest possible point.
2. Laps should not be added or subtracted unless the race director is certain the counter is incorrect.
3. For a major error in counting, the steps taken should preserve as much of the race as possible, while remaining as fair as possible to all racers.

D. MARSHALING

All drivers are expected to marshal the race(s) preceding their own races. Substitute marshals must be acceptable to the race director and drivers. Good racing is not possible without good marshals. Every racer is required to do his/her part both before and after racing if necessary. Failure to fulfill marshaling responsibilities will result in lap penalties and/or disqualification. *All* cars will be impounded after all races to insure fair and proper marshaling responsibilities. Cars will be returned and move-up drivers will be given equal time to prepare for upcoming races.

E. LANE CHANGE

1. Following each lane change, all cars must be returned to the track where they stopped. Putting a car back on the track in an advantageous position, will result in a five lap penalty. A second infraction will result in disqualification. It is the drivers responsibility to know where his car stopped. When a car is removed from the track during racing, the same rule applies. Corner marshals should notice the cars stopping in their section and pay close

attention to cars near the lap counter section. At the conclusion of each race, cars will be left on the track until the order of finish is positively determined.

2. Racers are required to use lane change cards at all National Championship racing events.

F. UNSPORTSMANLIKE CONDUCT

1. Unsportsmanlike conduct on the part of a driver or turn marshal will be subject violators to immediate disqualification at the discretion of the race director. Verbal abuse or profanity will not be tolerated. The race director may first warn drivers, marshals, or pit helpers if their behavior is unacceptable. Serious or repeat violations will result in a five lap penalty for the first infraction and disqualification for the second.
2. Repeat offenders of any of the unsportsmanlike conduct guidelines maybe prohibited from future USRA events.

G. PROTEST

A competitor may protest another racer's equipment by officially informing the race director. Special provisions for armature protest are in the following section.

1. A racer must be aware of the rules when entering a USRA event and withdrawal is not an option in the case of a protest.
2. Any racer in a USRA-sanctioned race whose motor is protested and then refuses to have his/her motor torn down shall be banned from competition in any USRA race for a period of one year from the date of said infraction.

XIV. ARMATURE PROTEST

(Restricted Classes Only)

1. Any competitor may protest another racer's armature. He/she must officially inform the race director, at which time the race will be stopped.
 - a) The protester may "buy-a-look" by posting a \$2.00 fee. He/she is then entitled to look at the suspected armature in the car.
 - b) If not satisfied, he/she may formally protest which requires posting a fee equal to double the current manufacturer's suggested retail price of the protested armature. The "buy-a-look" fee is transferable.
 - d) At this time, the armature must then be non-destructively and indelibly marked (suggested method is unique Dremel marks on the shaft). Extreme care must be exercised to avoid damage to armature balance and delicate components such as ball bearings, motor brushes, etc.
 - e) An impartial race steward must then be charged with the responsibility of observing and verifying the authenticity of the armature for post race inspection. The race will then be restarted.
2. Thorough disassembly and inspection must be conducted immediately upon completion of racing, in a manner assuring accurate technical verification. Armature stack length will be measured, and if within specs, the inspection will proceed to the wire. This can be accomplished by destroying any epoxy or similar binder with extreme heat (suggested method is to use a small torch).

Then dissecting the armature with a Dremel and carefully measuring the wire and counting the turns.

3. The fees will be held by the race director until resolution of the matter, then promptly surrendered to the appropriate party. Likewise, any winnings and/or points will be held pending the outcome of the inspection.
4. "Buy a look" proceeds go to the protested party, if not applied to a formal protest.
5. There is a maximum fee of \$100.00 for protesting Group 27 armatures.

USRA CHAPTERS

Florida (Scale)	www.fladivision2.com
Great Plains	www.geocities.com/gpusra/
Mid-Atlantic	Jeff Muller, 856-464-1382 jeff_08051@yahoo.com
North Central	www.raceclub.us/NorthCentral
North East	www.northeastusra.org
Northern California	www.slick7.com/USRAindex.htm
Mid-South (Wing-Car)	Dennis Strickland, 704-878-0792 dastrickland@bellsouth.net
Mid-South (Scale)	Roger Cleveland, 843-236-2580 slotmann@aol.com
Penn/Jersey	Jay Kisling, 610-779-5629 jkdiv2pres@cs.com
Southern California	www.socalusra.com
Tri-State (Wing-Car)	Ron Van Wagnen, 440-288-1798, 4409498125 rvw288@centurytel.net
Tri-State Oval Series	Ken Green, 317-535-0680 Ron Hershman, fastIron@yahoo.com
Yankee	www.modelvillehobby.com/images/yankee_usra.htm

GENERAL TECHNICAL RULES

All cars/racers are expected to comply with these guidelines. All drivers are responsible for the legality of their equipment. There is one car per driver per class, and one driver per car per class. **Any rule that is in question or is being interpreted improperly will be clarified by the National Director and/or the Rule Committee.**

I. SCALE

The scale to which the cars must be built is 1/24th of the size of an actual race car. For the 1/32nd Eurosport class, cars must be built to 1/32nd of the size of an actual race car.

II. WIDTH

All cars may not be more than 3.25 inches (82.55 mm) wide at any point. Round head body mounting pins may extend beyond this width. Other type body pins such as glass head type are not allowed.

III. WHEELS

All cars must have two front and two rear wheels, with rubber tires.

- A. Rear tire minimum diameter is 0.750 inches (19.05 mm), unless otherwise specified. Rear wheels maximum width is 0.810 inches (20.57 mm), unless otherwise specified.
- B. Front tire minimum diameter is 0.500 inches (12.7 mm), unless otherwise specified.
- C. Front wheels, or one-piece wheel/tire units, must rotate on their axles.
- D. Front wheels must be mounted so as to contact the racing surface, as the car is rocked to the side, before grounding on the chassis or body. This rule applies only to the Wing-Car division.

IV. CLEARANCE

For all classes, the minimum track clearance of chassis, gear, and motor is .062 inches (1.58 mm) unless specified otherwise. No parts may drag. Guide flag/braid, and front and rear tires are exempt from this rule.

V. GUIDE FLAG

One guide or pickup device per car.

VI. BODY

Body designs should resemble full size race cars. Manufacturers are urged to maintain scale proportions. Variations are allowed to conform to state-of-the-art practices.

- A. Paint: All bodies must be fully painted and opaque when sitting on the tech block, except for the sides of the body, which may remain clear. Bodies

should be detailed to resemble full-size race cars. Exhaust pipes, body lines, injector stacks, mirrors, and decals are optional.

- B. Numbers:** All cars must display three numbers of reasonable size and position, 1/4 inch (6.35 mm) minimum.
- C. Interior:** All cars must contain a suitably painted, 1/24th scale driver, with helmet, shoulders, arms, and steering wheel, mounted in the original cockpit position at all times during race. May be made of any material, paper included.
- D. Windshield:** Windshield must be clear and allow for viewing of driver. May not exceed 1-1/4 inches x 1-1/4 inches (31.75 x 31.75 mm) unless following original manufacturer's mold lines.
- E. Wheel Wells:** Wheel wells must be transparent, or cut to the horizontal center line of the front wheel. When viewed from either side of the car, 75% of both of the front wheels must be visible through the wheel wells.
- F. Body Openings:** The chassis must be completely covered by the body and air control when viewed from above, except for the cockpit opening or USRA legal body openings (such as accurate representations of vents, scoops, etc.).

VII. AIR CONTROL DEVICES (Wing-Car Division Only)

- A.** No part may exceed 2.5 inches (63.5 mm), measured from the tech block surface. No air control devices can be opaque.
- B.** Side Dams may be a maximum of 2.5 inches (63.5 mm) high behind the rear wheel center line and continue on a taper making them a maximum of 2.0 inches (50.8 mm) high at a point 3.75 inches (95.25 mm) forward of the rear wheel center line. The same taper may continue ahead of the front wheels.
- C.** All air control devices must have their front edges taped and their outside corners rounded to a degree which will minimize the chance of injury to race participants and spectators
- D.** May affix any decals or markings on any air control surface (including spoiler) but air control surfaces cannot be opaque.
- E.** Diaplane maximum length is 0.500 inches (12.7 mm). Corners must be rounded to help prevent injury to race participants and spectators..

VIII. PARTS REPLACEMENT

Any component may be replaced during competition except the original chassis or body. Any racer found to have switched chassis or body will be disqualified immediately. All replacement parts must conform to the rules of the class.

IX. GENERAL TECHNICAL SPECIFICATIONS

A. ARMATURE STACK LENGTH

- 1.** Any armature that has been purposely altered or tampered with to make the stack appear longer in an attempt to circumvent the stack length rules as listed shall be declared illegal at the tech inspector's discretion. Stack length minimums shall be required on all three poles of the armature (using

calipers with the faces across each end of the pole) and only the actual lamination material shall be used to determine this figure. This is meant to specifically exclude, for example, such practices as the insertion of spacer-type materials between the laminations, abnormally thick applications of coatings, or any other method of artificial compliance with the rule.

2. Any armature presented for tech inspection that is found to be illegal for competition (such as short stack) will be impounded until the completion of the racing class.
3. Litz wire may not be used in any class with armature wire specifications.

B. CONTROLLER SPECIFICATIONS

Any controller/choke may be used as long as the controller/ choke uses no batteries or additional power sources to increase or regulate voltage or amperage at track braid. Specifically prohibited are voltage multipliers or doublers, transformers, batteries, encapsulated components, and capacitors. Specifically allowed are simple wire chokes, and diodes. These lower power but, do not regulate it. A variable choke operated by the driver shall not be considered regulated. Relays, if used, must be powered by track current only. Controllers / chokes are subject to inspection by USRA officials to verify compliance with the above rules. Transistorized controllers such as the Ruddock DR40 are approved for USRA use.

CAR SPECIFICATIONS - WING-CAR DIVISION

SPEC-15

All *General Rules* also apply.

Spec-15 is intended to introduce entry level racers to glue-type racing. To that end the specifications for this class will never be changed. No rules proposals to change any of the Spec-15 rules will be considered.

Drivers: This class is *only* open to Amateur drivers who have *never* made the main event in any class at a previous Nats. Drivers may *only* compete in Spec-15 class and Amateur GP-12. Winners of this class may defend their championship title one time *only* (the following year).

Awards: Awards will be donated merchandise and trophies *only*.

Qualifying: Qualifying will be by random lane pick. Number of entries will determine format.

Glue: The National Championship race will run using limited glue. (Regional races may opt to race under spray glue conditions.)

A. Motors

1. Motors must be commercially available, as defined in *General Rules, Section IX*, and must be specifically approved for the Spec-15 class on an "as-submitted" basis.
2. Can and endbell will be the same as in the Amateur GP-12 motor rules. See page 30.

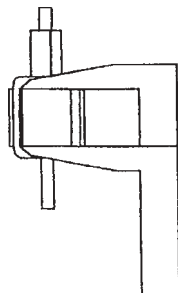
3. Any motor retailing for US\$44.53 or less may be used as long as it meets all Spec-15 specifications and rules.
4. All motor manufacturers are encouraged to make Spec-15 motors. Motors for the Nats will be handout motors determined by a random draw by USRA officials. Regional racing is encouraged to run all makes of motors to help promote the class at the local level. Springs and brushes may be changed from hand out motors. Springs must be of three-coil type from a USRA-approved manufacturer.

B. Magnets

1. See GP-12 specifications on page 30.

C. Armature

1. Armatures must be commercially available as defined in General Rules Section IX, and must be specifically approved for the class.
2. Must be machine wound with a minimum of 50 series-wound turns of AWG #29 wire per pole. AWG #29 wire is 0.0112–0.0114 inches in diameter, excluding insulation.
3. Only Spec-15 armatures are permitted, and must have a minimum stack length of 0.440 inches (11.18 mm). See *Armature Stack Length* section for clarification.
4. *All* armatures will be 0.513 inches in diameter (13.03 mm) *only*.
5. Must be tagged with Spec-15 indicating they were produced by a USRA-approved manufacturer in compliance with these rules.
6. Armatures may be reconditioned. Reconditioning includes: cleaning, dyeing, commutator re-truing, and re-balancing.
7. Armatures retailing for US\$29.30 or less may be used as long as they meet all Spec-15 armature specifications and rules.



D. Can Modifications

See C-Can specifications on page 40.

E. Chassis

All chassis manufacturers are encouraged to produce Spec-15 chassis. The USRA will provide each manufacturer with a disk that will have the USRA-designed chassis drawing and specs (measurements) on it. Any manufacturer wishing to make a Spec-15 chassis will be required to make the chassis to these specifications and design *only*. An assembled chassis showing where all of the components are to be placed will also be sent to any manufacturer that wishes to make a Spec-15 chassis. *All* Spec-15 chassis will be engraved by the manufacturer with a serial number. The racer will then fill out the attached registration card and send it in to the USRA to register his chassis. Each chassis competing at the Nats will be checked for this serial number to insure its appropriate use and legality. Chassis may *not be* modified from

original assembled form. All weight must be attached to top of chassis pans *only*. No under chassis weight allowed. All body mounts to be left in original position. (No floating of rear body mounts.) Maximum chassis cost is US\$39.44.

F. Bodies

Any USRA-approved body may be used.

G. Tires

Tires to be handed-out by USRA along with handout motor. Local option could be handout also, or determined by regional director. It is strongly suggested that only a single tire brand be utilized for all racers.

H. Gears & Axle

1. Any gear ratio or pitch may be used. Drilled gears are permitted.
2. Only solid axles retailing for US\$5.00 or less may be used. May have flats.

I. Bearings

No ball, roller, or other frictionless bearings are allowed.

J. Weight

Minimum weight for Spec-15 cars is 72 grams at all times while racing.

GP-12

All *General Rules* also apply.

A. Motors

Refer to page 40 for C-Can specifications.

B. Armature

Refer to page 41 for armature specifications. X-12 or GP-15 armatures may be used.

C. Chassis

1. Chassis for the GP-12 class must be commercially-available and be specifically approved on an “as-submitted” basis, in accordance with the following parameters:
 - a) Any chassis, which has been submitted and approved, that retails for US\$39.44 or less in completed form and which meets all current USRA GP-12 specs, may be used.
 - b) Chassis must be commercially-available separately, and may also be available in an assembled ready-to-run car.
 - c) See the *GP-12 Approved Components* on page 35 for the list of approved chassis.
2. Chassis may be made of any material.
3. Chassis containing steel components, except steel wire, pillow blocks, motor brace, and lead wire retainer:
 - a) Must have a guide mount which is integral.

- b) Must be made of a continuous piece of steel extending from the guide mount to the rear axle line, to which the pillow blocks are attached.
 - c) The bottom of the guide mount must be level with the bottom of the chassis with no offset.
 - d) Steel chassis may be sold as kits, but must be commercially-available in an assembled form. Kits must be assembled in a manner identical to the assembled production chassis except as noted.
4. Front body mounting tubes must be rigidly attached to the chassis (no shakers or floating mounts).
 5. Rear body mount may be floated on any steel chassis, but must remain in original location as on the RTR car. Steel pin tubes may be used.
 6. May only reposition front wheel mount location on any chassis but wheels must be able to be seen through body wheel well opening. No other component may be altered or repositioned from its original location in RTR car.
 7. Minimum weight of a completed, RTR car will be 72 grams at all times during a race.

D. Modifications

Pre-assembled chassis may be re-soldered, but components may not be altered or repositioned, chassis kits must be assembled the same manner as production chassis. Anything not listed here is illegal.

1. Static bracing, consisting of straight piano wire may be added to solder joints only. Wire may not be bent at any angle so as to constitute a brace. Wire may not be soldered to anything else other than the component it is parallel to.
2. No floating pans.
3. On steel chassis, brass and lead may be used for weight.
 - a) Weights must be solid, rigidly-attached, and not used as a brace. All weight may only be attached to the front and/or to any existing weights. Weight may not be soldered to the center rail or to the side rails.
 - b) Weights may extend no more than one (1) inch (25.3 mm) back from the center of the guide hole.
 - c) No modifying or bracing of chassis will be considered to be legal weight.
 - d) Weights may be soldered to the bottom of the chassis so long as the chassis and attached weight clear the track by 1/16 inch (13.05 mm) at all times.
4. A lead wire retainer may be added.
5. A motor support tube or wire may be added, not to exceed 1-1/2 inches (38.1 mm) in total length behind the motor. Motor must be soldered to this brace or it will be considered an illegal chassis brace. Chassis may have steel pillow blocks and motor brace.
6. May solder or glue oilites in place.

E. Prohibited Modifications:

1. Tie wire.
2. Changes in size, dimension, shape, or location of any component.

F. Lightweight Components

Since the GP-12 class is intended to be an entry-level class, many of the rules are designed to discourage the use of complicated, state of the art, or expensive components. Therefore, special lightweight components are specifically prohibited, including:

1. Magnet wire or magnet type wire as a substitute lead wire.
2. Hollow or special lightweight axles.

G. Gears

Any gear ratio or pitch is allowed. Drilled gears are permitted.

H. Axles

1. Axles retailing for US\$5.00 or less may be used.
2. Axles with flats are allowed.

I. Wheels

Front and rear wheels may be drilled.

J. Bearings

No ball, roller, or other frictionless bearings are allowed.

K. Weight

Minimum weight for GP-12 cars is 72 grams at all times while racing.

INTERNATIONAL 15

All *General Rules* also apply.

A. Motor

1. Can must be mass produced, and commercially-available, as defined in the *General Rules, section IX*. Cut outs and machine work are allowed.
2. Can inside dimension minimums are defined as not less than:
 - a) Length: No restrictions.
 - b) Width: 0.835 inches (21.21 mm).
 - c) Height: No restrictions.
3. Magnets must be ceramic. Magnets containing rare earth materials (defined as elements with atomic weights 58 through 71) are not allowed. No neodymium magnets or materials allowed.
4. Ball Bearings are allowed.

B. Armature

1. Must be tagged with at least the number 15, and mass produced by a USRA-approved manufacturer.
2. Must be machine wound with a minimum of 50 series-wound turns of AWG #29 wire per pole. AWG #29 wire, excluding insulation, is 0.0112–0.0114 inches in diameter.
3. Must be commercially available, as defined in *General Rules, Section IX*.
4. Armature stack lamination length shall be a minimum of 0.440 inches (11.18

mm). See *Armature Stack Length* section for clarification.

5. Armatures retailing for US\$30.89 or less may be used as long as they meet all specifications and rules for Intl-15 arms.

C. Chassis

1. No chassis restrictions. Any material may be used.
2. Racer-constructed chassis are specifically allowed.
3. Ball bearings are allowed.

COBALT 12/15

All *General Rules* also apply.

A. Setup

1. No restrictions.
2. Ball bearings are allowed
3. Amateur C-12 racers may use single or quad magnets only.

B. Armature

1. Must be tagged with at least the number 12 or 15, and be mass produced by a USRA-approved manufacturer.
2. Must be machine wound with a minimum of 50 series-wound turns of AWG #29 wire per pole. AWG #29 wire, excluding insulation, is 0.012-0.0114 inches diameter.
3. Must be commercially-available, as defined in *General Rules, Section IX*.
4. Armature stack length shall be a minimum of 0.350 inches (8.89 mm). See *Armature Stack Length* section for further clarification. No minimum diameter is specified.
5. Timing may be adjusted to allow for factory variations.
6. Armatures retailing for US\$32.44 or less may be used as long as they meet all specifications and rules for C-12 arms.

C. Chassis

1. No chassis restrictions Any material may be used.
2. Racer-constructed chassis are specifically allowed.
3. Ball bearings are allowed.

GROUP 27

All *General Rules* also apply.

A. Set-up

No restrictions.

B. Armature

1. Must be a tagged Group 27 armature, and mass produced by a USRA-approved manufacturer.
2. Must be commercially-available, as defined in *General Rules*.

3. Must be wound with a minimum of 38 series-wound turns of AWG #27 wire per pole. AWG #27 wire, excluding insulation, is 0.0141–0.0143 inches in diameter.
4. Armature stack lamination length shall be a minimum of 0.440 inches (11.18 mm). See *Armature Stack Length* section for further clarification.

C. Chassis

No restrictions.

D. Wheels, Tires, & Gears

Must comply with *General Rules*; otherwise no restrictions.

E. Bodies

Must be commercially-available and approved for use in restricted classes.

GROUP 7/OPEN (UNLIMITED)

All *General Rules* also apply.

A. Motor

No restrictions to setup or armature.

B. Chassis

No restrictions.

C. Bodies

Must comply with *General Rules*; otherwise no restrictions.

D. Wheels, Tires, & Gears

Must comply with *General Rules*; otherwise no restrictions.

APPROVED COMPONENTS FOR GP-12

(New Parts for 2005 are in **Bold Type**)

C-CAN MOTORS

Fast Ones	FO2000
Kamen	K100 Set-up K050 Motor
Kelly	1001 Ultra Lite plated can 1150 1152 1153 Ultra Lite plated can (new hardware) 1154 G-2 1155 G-2 thin can
Koford	M408 (vertical) M408J (horizontal) M408K (Spec-15) M504A Super Feather GP-12 motor M50444B Super Feather Spec-15 motor
Mura	1212 1213P 1215P
Parma	455
Proslot	723 728 (Spec-15)
RJR	505 506 507 thin can 590 (Spec-15)

ARMATURES

Camem	GP-12 Intl-15 C-12 27
Fast Ones	FO390 (X-12) .513 FO391 (X-12) .518 FO470 (Intl-15) FO480 (C-12) FO490 (27)
Koford	M468-15 (Spec-15) M468-15A (Intl-15) M467-12-B&C (C-12) M468 Box (GP-12)

Koford, con't	M467-27A
Mura	2012
	2013
	2015
Proslot	206 (Intl-15)
	207 (C-12)
	211 (27)
	701 Series (GP-12)
	702 (Spec-15)
RJR	901 (GP-12) .513, 38 deg
	901B (GP-12) .518
	901X (GP-12) .513
	903B (C-12)
	906B (GP-12) .518 new blank
	912B (Intl-15)
	990 (Spec-15)

GP-12 CHASSIS

FX	79 Fast Eddy Chassis
	97
	98
GTO	Grp12A&B
JK	27041
Kelly	1501 Wire Chassis
	1504 G-3
	1518 G-25
	1507 G4
	1515 Wedge
Koford	M451
	M451T
	M490A
	M500A
	M503
	M511A Superspeedway Beuf
	M512A Short Superspeedway Beuf
	M513A Short Beuf Express
Mossetti	204A
	206A
	(Mossetti chassis with separate motor brace are not approved as they were not submitted)
Parma	70013
Proformance	201
	201A
	201B
	202

Proformance, con't	202A
	202B
	203
	203A
	205 GP-12 chassis, all steel
	203B
	204
	204A
	204B
	317
Proslot	317-04 Perimeter
	318
	318-04 Tripod
	319
Slick 7	320
	S7243C .055
	S7243C .062
	S7243D
	S7473B
	S7541
Zap	S7543
	S7273C
	100
	101

BODIES

Alpha	410 Jaguar XJR
	420 Jaguar
	450 Spice, with rib
	460 Toyota
	470 Shadow
	472 Griffin
	474 Valkyrie
	476 Nissan
	478 RL-1
Best O' the West	301 Mirage
	302 Panoz
	303 Venom
	304 Hawk
JK Products	KO20 Audi
	KO30 Porsche
	KO41 Stratos
Kelly	804 Taz
	1805 Bat
	1806 T-bird

Kelly, con't	1802 Fox
	1803 Firestorm
	1807 Bat, with rib
	1808A Bullet
Koford	1809 BK
	M214G Porsche
	M214H Mercedes
	M214I Peugeot
	M214J Ferrari
Outisight	028 Tiga
	029 Royale
	029R Royale, with rib
	029AW Royale SE
	030R Vette, with rib
	041 Infinity
	041R Infinity, with rib
	052 Viper
	052R Viper, with rib
	053 Cobra
	053R C-2, with rib
	054 Avenger
	054R Avenger, with rib
	055 Probe, with rib
	056 Banshee
	057 Viper, short
	057 Viper, short, with rib
	058 Reaper
	100 Asp
	101 Serpent
	101N Serpent without rib
	102 Royale 2K2
	103 Vette 2K2
106 V-3	
107 V-5 Viper	
Parma	70515 Stinger
	70503 Phantom
	70507 Demon, with rib
	704651 966, with rib
	70500 955
	70511 Demon
Proformance	70499 Cobra
	7100 Z-28
	7100-2 Z-28 without rib
	7101 Secco
	7102 Elroy

Proformance, con't

7103 Outrider
7104 Endor
7105 SkyWalker
7106 Ormond
7107 Excalibur
7108 Quest

ZAP

Z-1 Lola
Z-2 Ferrari
Z-3 Lotus
Z-4 Ferrari

C-CAN MOTOR SPECIFICATIONS

Starting in 2002, a two-year freeze went into effect regarding the changing of any or all motor parts. This includes: armatures, cans, magnets, endbells, and hardware. At the end of two years, motor manufacturers are able to submit new designs on any or all of these components. Here is the schedule for the upcoming years:

Submit by 2005 deadline for the 2006 and 2007 racing years

Submit by 2007 deadline for the 2008 and 2009 racing years

Submit by 2009 deadline for the 2010 and 2011 racing years

Submit by 2011 deadline for the 2012 and 2013 racing years

A. General

1. Motors must be commercially available, as defined in *General Rules, Section IX*, and must be specifically approved for the GP-12 class on an “as-submitted” basis. Approved motors are listed in the *GP-12 Approved Components* listing.
2. Can and endbell must be mass-produced, of full-dimensioned can type (full top, bottom, and two sides, without cheater tabs or other artificial attempts

	Scale	Expert Wing	Amateur Wing	Spec-15
Magnet Adhesive	No Restriction	Clear cyanoacrylates or epoxy	Clear cyanoacrylates or epoxy	Clear cyanoacrylates
Unrestricted Honing of Magnets by Racers	Yes	Yes	Yes	No
Air Gap	No Restriction	No Restriction	No Restriction	0.528 Minimum
Interchangeable Endbells and Hardware	Yes	Yes	No	No
Shunt Wires and Spring Insulation	No	Yes	No	No
Can End Ball Bearing	No	No	No	No
Brush Springs	3 Coil	No Restriction	3 Coil	3 Coil

to meet the dimensional specifications) without modification. No aluminum endbells allowed. Inside can dimensions are defined as not less than:

Length - 0.925 inches (23.50 mm)

Width - 0.835 inches (21.21 mm)

Height - 0.560 inches (14.22 mm)

3. Aftermarket components which are not identical replacements of original parts as approved are not allowed. This means endbells, hardware, cans, etc. must be original for that brand and type of motor, with the following exceptions:
 - a) Approved single-piece magnets may be interchanged. Any magnet approved for use in any manufacturer's motor may be used in any other manufacturer's setups.
 - b) Manufacturers selling super magnets, or other components above the cost of original equipment replacement parts, are not allowed. A super magnet at higher cost and identical in appearance may not be detectable in a car, hence manufacturers selling identical-looking components at higher cost will lose approval for their motor (this would not rule out "matched" pairs of approved magnets).
4. Any motor retailing for US\$44.53 or less may be used as long as it meets all GP-12 specs and rules. Price only applies to Amateur Wing-Car motors.

B. Magnets

1. Magnet dimensions plus or minus 10% are as follows:
 - a) Length: 0.500 inches (12.70 mm)
 - b) Width: 0.150 inches (3.81 mm)
 - c) Height: 0.550 inches (13.97 mm)
2. Magnets must be commercially available through major distributors.
3. No quad magnets allowed. Magnets must be single-piece ceramic only.
4. Magnets may not contain "rare earth" materials (defined as elements with atomic weights 58 through 71).

C. Can Modifications

Anything not listed here is illegal.

1. Can bushing may be soldered in place but may not be reversed or moved from original position except as stated in below.
2. Diameter of bushing locator hole may be altered to allow the stock size bushing to be centered.
3. Outside diameter of bushing (excluding flange) may not be altered.
4. See table for adhesive rules. Need not retain magnet clips.
5. Magnet zapping is permitted.
6. Only single, one-piece magnets. No quad or multiple piece magnets allowed.
7. A minimum air gap of 0.528 inches (13.41 mm) will be enforced.
8. Motor brushes and springs may be replaced and spring tension may be adjusted. See table for spring rules.
9. A 1/8 inch (3.18 mm) notch may be cut in the can to allow for axle clearance.

10. Prohibited Modifications:

- a) Cut outs or machine work on can or endbell.
- b) See table for shunt wire rules.
- c) Adding endbell heat sinks.
- d) Drilling holes in can or endbell.
- e) Armatures and magnets may be intermixed between approved manufacturers. Spec-15 motors must use the original can, endbell, and hardware. See table for mixing of other parts.

11. Definition of can shall not include surface treatment. If a manufacturer introduces a plated can they need not go through the submission process again. Plated can must sell for the same price as unplated version.

General C-Can armature specifications

- 1. Refer to section about C-can motor specification for restrictions on new armature submissions.
- 2. Only round copper wire can be used. Litz wire may not be used.

GP-12 Armature Specifications

- 1. Armatures must be commercially-available as defined in *General Rules, Section IX*, and must be specifically approved for the class. Approved armatures are listed in *GP-12 Approved Components*.
- 2. Must be machine wound with a minimum of 50 series-wound turns of AWG #29 wire per pole. AWG #29 wire, excluding insulation, is 0.0112-0.0114 inches in diameter.
- 3. GP-12 or -15 armatures are permitted in GP-12. Must have a minimum stack length of 0.350 inches (8.89 mm). See *Armature Stack Length* section for clarification. Spec-15 armatures must be a minimum of 0.440 inches (11.18 mm) long.
- 4. GP-12 armatures must be no less than 0.513 inches (13.03 mm), and no more than 0.518 inches (13.16 mm) in diameter. Spec-15 armatures must be 0.513 inches (13.03 mm) in diameter only.
- 5. Armatures must be tagged with at least the number 12 or 15 to indicate they were produced by a USRA-approved manufacturer in compliance with these rules. Spec-15 arms must be tagged Spec-15.
- 6. Armatures may be reconditioned. Reconditioning includes: cleaning, dyeing, commutator re-truing, and re-balancing.
- 7. Armatures retailing for US\$29.30 or less may be used as long as they meet all GP-12 armature specifications & rules.
- 8. Only GP-12 (X-12) armatures can be used in GT-12.

GENERAL SCALE COMPETITION REGULATIONS

I. Driver Classification Scale Division

A. Eurosport and GT-12

All Drivers are encouraged to enter these classes regardless of ranking.

B. All classes except Eurosport and Junior will be divided into Amateur and Expert divisions.

1. *Amateur Division*

- a) Racers with average driving or technical ability and newer racers.
- b) C-12E class will be for Amateur racers only. Any racer who has previously raced a main in either 1/24th or 1/32nd Eurosport may not compete in C-12E.
- c) At the National Championships, Amateur Division racers will use hand out motors for all classes except C-12E.
- d) Junior class is for those 14 years of age and younger.

2. *Expert Division*

- a) All drivers with exceptional driving or technical ability.
- b) Any driver sponsored by a major manufacturer must race in this Division.
- c) Any racer who has won in any Amateur class at the Scale Nationals must race Expert Division in all classes at any future Nats.

II. Additional General Scale Rules

A. All scale classes must use three dimensional vacuum formed interiors. No paper, flat, or thingie type interiors allowed.

B. National Championship Procedures

1. Amateur classes, not including C-12E shall use handout motors.
2. Amateurs and experts shall race on each day of the Nats.
3. All scale races apart from 1/32nd, Eurosport, 1/24th Eurosport and C-12E will follow the race format as set out in section XI. Australian Race Format, except that there will be no qualifying for any races. Initial heats will be seeded in a random manner. For all Eurosport classes refer to the Eurosport Race Procedure Section
4. All main events will be 8 x 3 minutes with 2 minute lane changes. Semi finals and Quarterfinals will be 8 x 2 minutes with 2 minute lane changes. All consis and lower will be 4 x 2 minutes with 2 minute lane changes. For Eurosport race duration refer to Eurosport Race Procedure Section.

C. Litz wire may not be used in any class with armature wire specifications.

CAR SPECIFICATIONS - SCALE DIVISION

Group 10 Stock Car

All *General Rules* also apply.

A. Chassis

1. Must be a commercially-available approved chassis.
2. Must be stamped and formed metal. The portions to which the motor is attached must be steel. Floating pans may be steel, aluminum, or brass.
3. May update chassis to RTR specs. May use lightweight replacement pans, and center sections.
4. May interchange parts from a single manufacturers; such as Flexi and Flexi-2 parts, JK long or short center sections, and heavy or light pans on JK Chassis.
5. Chassis may have a maximum of three chassis parts consisting of one solid center section and maximum of two separate pans. No additional pans or two piece center sections allowed.
6. No modifications except for the following:
 - a) May solder or glue motor, axle oilites, and front wheel retainers.
 - b) May add lead weight and tape to chassis.
 - c) May file holes in motor bracket to allow better gear mesh, but must retain a portion of motor bracket.
 - d) No oilite modifications allowed. May use offset oilites.
 - e) May add spacers between pan and center section.
 - f) May add a one-inch long motor brace and an upright brace.
 - g) The original manufacturers plating may be removed in the area to be soldered only.
 - h) May add pin tubes. Pin tubes may be either solid or floating. May add lead wire retainer.
 - i) May solder on steel guide tongue reinforcement such as Slick 7 but the original tongue may not be removed, modified, or moved.
 - j) No other-modifications, soldering, cutting grinding or bracing allowed.
 - k) May use any guide, nut, spacers, lead wire and clips.

B. Motors (Stock 16-D)

Must be commercially-available, meet all USRA manufacturing specs, and be approved for use in this class by the USRA. A minimum number of 500 pieces is required for approval, and must be available through distributors and or raceways by Oct. 1 prior to the National Event.

1. Stock 16-D style set-ups only. Must be commercially-available. Setup must retail for US\$11.15 or less. Setups sold with aluminum spring cups retailing for US\$12.24 or less may compete.
2. No modifications allowed except as follows:
 - a) Racer may add can screws.

- b) May add spacers to limit end play.
- c) May dye armature.
- d) May re-true commutator.
- e) May zap magnets.
- f) May glue magnets in place. Any adhesive may be used.
- g) May change brushes and may use any three-coil springs.
- h) No polishing of magnets allowed.
- i) No shimming or honing of magnets.
- j) Balancing is allowed.
- k) Armature may reconditioned; coating may be removed.
- l) Minimum air gap is 0.575 inches (14.61 mm).
- m) May not interchange parts between manufacturer's set-ups.
- n) Oilite may be soldered in place.
- o) May use Mura endbell hardware as replacement hardware. Aluminum spring cups may be used as replacements.
- p) May solder hoods to brush plates.

3. Cans (16-D)

- a) Must be made from metal, and have no cutouts or metal removed from sides of can. The only allowable cutouts are the axle notches. Only one hole is allowed on the top and bottom of can. No strap-type cans allowed. Cans must have a full top and bottom. No cheater tabs on cans allowed.
- b) Must meet the following minimum inside dimensions:
 Height: 0.600 inches (15.24 mm)
 Width: 0.875 inches (22.23 mm)
 Length: 0.950 inches (24.13 mm)
- c) Definition of can shall not include surface treatment. If a manufacturer introduces a plated can they need not go through the submission process again. Plated can must sell for the same price as the unplated version.

4. Magnets (16-D)

- Must be stock one piece single (no quads) ceramic magnets as found in the production motor, and meet the following minimum dimensions:
- Height: 0.570 inches (14.48 mm)
 - Length: 0.650 inches (16.51 mm)
 - Thickness: 0.145 inches (3.68 mm)

5. Armatures (16-D)

- Must be commercially available, meet all USRA manufacturing specs, and be approved for use in this class by the USRA.
- a) Must meet the following minimum dimensions:
 Diameter: 0.513 inches (13.03 mm) excluding coating
 Stack Length: 0.600 inches (15.24 mm)
 No split-stack/lamination arms allowed.
 - b) Must be wound with 70 series-wound turns of AWG #30 gauge wire (0.0099–0.0101 inches excluding insulation) per pole.
 - c) May be balanced.
 - d) May have factory-applied commutator tie wrap.

e) May be dyed and commutator may be re-trued.

f) Must be tagged 16-D.

5. Set-ups (16-D)

16-D set-ups are to be submitted and sold as ready to run. Set-ups should be ready to install a armature, brushes, spacers, springs with no further assembly work needed. Set-ups would have the magnets installed by using magnet clips or can fingers folded over and or super glue used to retain magnets. Can oilite pressed or soldered in place. End bell fully assembled and drilled for can screws. Air gap should be set to at least the minimum figure for the class. Parts/kits are not acceptable as set-ups.

6. Cans submitted for product approval after January 1, 2005, must be no lighter than the lightest approved can commercially available on January 1, 2005. This is a manufacturer specification, not a racer specification. The minimum weight is 2.1 grams.

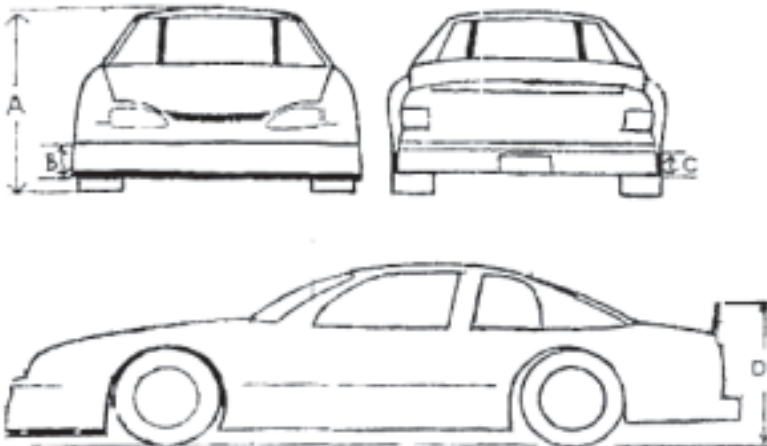
C. Bodies

1. Must be commercially-available and approved for use by the USRA.

2. No air control devices allowed. No alterations or additions to the manufacturer's dimensions are permitted. Body must cover entire chassis when viewed from above.

3. May reinforce body with tape or Lexan.

4. 4-inch Stock Car bodies will be used. Should represent the full size car. Only Stock Car body styles will be permitted. Bodies must have front and rear bumpers.



A = Roof Height: 1-1/2 inches (38.10 mm) measured from the track to the center of roof; roof ribs not included.

B = Front Bumper: Minimum 1/8 inch (3.18 mm) measured from the top of bumper down.

C = Rear Bumper: Minimum 1/8 inch (3.18 mm) measured from top of bumper down.

D = Rear Spoiler Height: Maximum height 1-3/8 inches (34.93 mm) measuring from test block.

For manufacturer specifications, please refer to the USRA website at www.usra.us.

- a) Minimum roof height is 1-1/2 inches (38.10 mm) measured from tech block to the center of the roof. Measurement does not include roof ribs. Car is to have legal clearance while measuring body height.
- b) Minimum 1/8 inch (3.18 mm) bumpers front and rear. Must retain a minimum of 5/8 inch (15.86 mm) rear valance measured from the trunk lid down. Rear bumper may be included in the measurement, but must also be minimum 1/8 inch (3.18 mm). May not cut out or put holes in rear portion of bodies.
- c) All windows must be clear.
- d) Bodies must have full painted 1/24th scale stock car interior. Chassis or track must not be visible.
- e) Rear spoiler to be blade type only with a maximum height of 1-3/8 inch (34.93 mm) measured from tech block to the top of the spoiler. Spoilers are to have no side dams/plates, no radius or fillets between the trunk lid and blade/spoiler.
- f) No other air control devices allowed.
- g) Front wheel wells may be cut out or left clear. No cutting into the top of the fenders.
- h) Must have three decal or painted numbers placed on body, one on each door and one on the roof. Bodies should be painted to resemble real stock cars.
- i) No wedging of bodies.
- j) Tech Director reserves the right to allow or disallow any cars or bodies and his decision is final.

D. Gears

Any gear ratio allowed. May **only** use 64 or 48 pitch gears.

E. Axles, Tires, & Wheels

1. The car must have a single one-piece front axle that passes through both uprights.
2. Front axle minimum diameter is 0.047 inch (1.19 mm). Front wheel minimum-diameter is 0.500 inch (12.7 mm).
3. May solder front retainers to front axle. May solder front axle where it passes through chassis. Front axles may be bent.
4. Front tires must be made of rubber mounted on separate metal rims. Tires must be mounted on front axles.
5. Rear Tires must be black rubber with a minimum diameter of 0.750 inches (19.05 mm).
6. May use 3/32 inch rear axle.
7. May use drill blank axles front and rear. Axles must be steel. No hollow or other lightweight axles allowed.

F. Clearance

Must have 0.062 inches (1.57 mm) clearance, measured at rear axle including gear.

PRODUCTION 4-1/2 STOCK CAR

All *General Rules* also apply.

A. Chassis

1. Must be a commercially-available, stamped and formed chassis with a 4-1/2 inch wheelbase and be approved for competition. The portion to which the motor is attached must be steel. Floating pans must be steel, aluminum, or brass.
2. If using extenders, must use original manufacturer's extenders on the chassis they were designed for. May solder extender to chassis. May remove front wings for extender/front wheel clearance only.
3. May update chassis to RTR specs. May use lightweight replacement pans and center sections.
4. May interchange parts from a single manufacturers; such as Flexi and Flexi-2 parts, JK long or short center sections, and-heavy or light pans on JK chassis.
5. No modifications except for the following:
 - a) May solder or glue motor, axle oilites, and front wheel retainers.
 - b) May add lead weight and tape to chassis.
 - c) May file holes in motor bracket to allow better gear mesh, but must retain a portion of motor bracket.
 - d) No oilite modifications allowed. May use offset oilites.
 - e) May add spacers between pan and center section.
 - f) May add a one-inch long motor brace and an upright brace.
 - g) The original manufacturers plating may be removed in the area to be soldered only.
 - h) May add pin tubes. Pin tubes may be either solid or floating. May add lead wire retainer.
 - i) May solder on steel guide tongue reinforcement such as Slick 7 but the original tongue may not be removed, modified, or moved.
 - j) No other modifications, soldering, cutting, grinding, or bracing are allowed.
 - k) May use any guide, nut, spacers, lead wire and clips.
6. No ball bearings allowed.
7. Chassis may have a maximum of three chassis parts consisting of one solid center section and maximum of two separate pans. No additional pans or two piece center sections allowed.

B. Motor

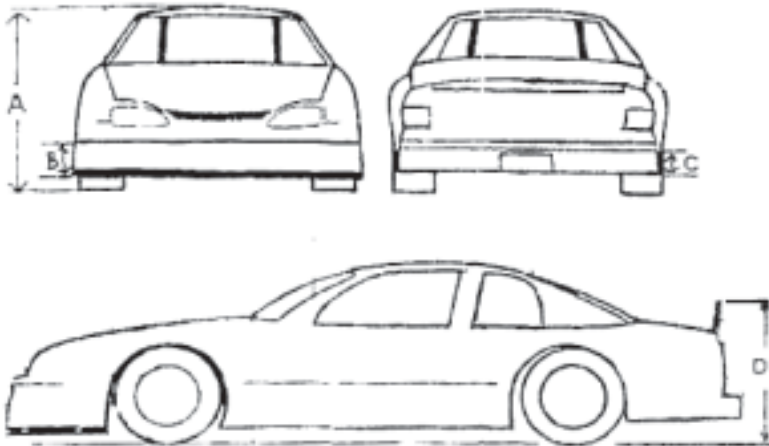
Same as GP-10 motor rules.

C. Bodies

1. Bodies must be 1/24th scale 4-1/2 inch wheelbase stock car bodies that are commercially-available and approved for USRA competition. Minimum

length 7-1/2 inches (190.5 mm). Only body styles resembling Stock Cars will be permitted.

2. Bodies must be fully-painted and all window areas must be left clear.
3. Body must have full Stock Car interior (Parma #809 or similar) properly-painted, and installed in the correct position, and completely covering interior. Chassis or track must not be visible when viewed from above.
4. Cars must have a minimum roof height of 1-7/8 inch (47.63 mm) measured from tech block. Roof height is to be measured at the center of roof, and does not include roof ribs. Height will be measured with car on tech block or track with legal clearance.
5. Cars must have front and rear bumpers. Front bumper must be at least 1/4 inch (6.35 mm) tall, measuring from top of bumper down. Rear bumper must be at least 1/8 inch (3.18 mm) tall, measuring from top of bumper down.
6. Car must retain a minimum of 1-3/16 inch (30.16 mm) rear body valance. This will be measured from trunk lid down. Rear bumper may be included in the measurement, but must also be a minimum 1/8 inch (3.18 mm). May not cut out or punch holes in rear of the body.
7. Rear spoilers are to be blade-type only with a maximum height of 1-5/8 inch (41.28 mm) measuring from tech block to top of spoiler. Rear spoilers are to have no side dams/plates, no radius, or fillets between the trunk lid and blade spoiler.



A = Roof Height: 1-7/8 inches (47.63 mm) measured from the track to the center of roof; roof ribs not included.

B = Front Bumper: Minimum 1/4 inch (6.35 mm) measured from the top of bumper down.

C = Rear Bumper: Minimum 1/8 inch (3.18 mm) measured from top of bumper down.

D = Spoiler height: Maximum 1-5/8 inches (41.28 mm) height measured from tech block to top of spoiler.

For manufacturer specifications, please refer to the USRA website at www.usra.us.

8. No air control devices allowed. No additions or alterations to the manufacturer's dimensions are allowed except for the following:
 - a) Rear spoiler maximum height is 3/8 inch (9.53 mm) measuring the actual blade/chord length. May add Lexan to meet this measurement.
 - b) Rear spoiler maximum width is 3-1/4 inches (82.55 mm). Lexan may be added to meet this measurement.
 - c) No "Gurney Lip" or additional bends in the spoiler allowed.
9. Bodies must have three scale-sized decal or painted numbers placed on roof and both doors. Bodies should be painted to resemble real stock cars.
10. No cutting into top of body or fenders allowed. No part of the chassis or tires may be visible when viewed from above. Maximum of 1/8 inch (3.175 mm) of tire may be visible as viewed from above.
11. Front wheel wells must be cut out.
12. May reinforce body with tape and Lexan.
13. No wedging of bodies.
14. Tech Director reserves the right to disallow any cars or bodies and his decision is final.

D. Gears

Any gear ratio allowed. May **only** use 64 or 48 pitch gears. May solder on pinion.

E. Axles & Tires

1. Minimum front and rear axle diameter is 3/32 inch. Steel axles only. No hollow or other lightweight axles. Drill blank axles are allowed.
2. Tires front and rear must be composed of black foam rubber only. No dyed tires allowed. May add nail polish to front tires.
3. Front tire minimum diameter is 0.675 inch (17.15 mm). Minimum front tire width 0.400 inch (10.16 mm). Minimum rear tire diameter is 0.790 inch (20.07 mm). Maximum rear tire width is 0.810 inch (20.57 mm).
4. Independent rotating front wheels are allowed.
5. Solid, one-piece front axles only; no stubbies. Axle must pass through both front uprights. Front axles may be soldered to uprights, but front wheels must rotate. Axle hole in front uprights may be enlarged to allow 0.675 front tires to touch the track but 4-1/2 inch wheelbase must be maintained.

F. Clearance

Car must have 0.062 inches (1.57 mm) clearance, as measured at the rear axle including gear.

GTP

All *General Rules* also apply.

A. Chassis

Same as Group 10 Stock Car.

B. Motor

Must be commercially available, meet all USRA manufacturing specs and be approved for use in this class by the USRA. One of the following Motors may be chosen:

- 1) **D-Can** Motor follows the same rules as described under GP-10 Stock Car except a Super 16-D armature must be used.
- 2) **C-Can:** Refer to C can specifications on page 40. Armature must be Super 16-C, Super Wasp, or Group 11.

C. Armature

1. Armatures must be commercially available as defined in General Rules, Section IX, and must be specifically approved for the class. Approved armatures types are Super Wasp, Hornet, GP-11 (Challenger, Contender, Competitor, and Sportsman), Super 16-D, and Super 16-C.
2. Armatures must meet one of the following technical requirements:

(a) Wasp/Hornet

- (1) Armatures must be no less than 0.513 inches (13.03 mm) in diameter.
- (2) Armatures must have a minimum stack length of 0.350 inches (8.89 mm). No split-stack/lamination arms allowed.
- (3) Armatures must be wound with a minimum of 60 turns of AWG #30 gauge wire (0.0099–0.0101 inches, minus insulation) per pole.
- (4) Armatures must be tagged Super Wasp or Hornet.

(b) Challenger/Contender/Competitor/Sportsman (Group-11)

- (1) Armatures must be no less than 0.513 inches (13.03 mm) in diameter.
- (2) Armatures must have a minimum stack length of 0.440 inches (11.176 mm). No split-stack/lamination arms allowed.
- (3) Armatures must be machine wound with a minimum of 55 turns of AWG #30 gauge wire (0.0099–0.0101 inches, minus insulation) per pole.
- (4) Armatures must be tagged Group 11, Challenger (CH), Competitor (COM, COMP), Contender (CONT, CTR), or Sportsman (SP).

(c) Super 16-C

- (1) Armatures must be no less than 0.513 inches (13.03 mm) in diameter.
- (2) Armatures must have a minimum stack length of 0.490 inches (12.45 mm). No split stack/lamination arms allowed.
- (3) Armatures must be machine wound with a minimum of 55 turns of AWG #28 gauge wire (0.0125–0.0127 inches, minus insulation) per pole.
- (4) Armatures must be tagged Super 16-C.

(d) Super 16-D

- (1) Armatures must be no less than 0.520 inches (13.03 mm) in diameter. Coating may be removed.
 - (2) Minimum Stack length of 0.490 inches (12.45 mm). No split-stack/ lamination arms allowed.
 - (3) Must be machine wound with a minimum of 60 turns of AWG #28 gauge wire (0.0125–0.0127 inches, minus insulation) per pole.
 - (4) Armatures must be tagged Super 16-D.
3. Armatures may be balanced.
 4. Armature may have factory commutator tie wrap.
 5. Armatures may be reconditioned.
 6. Arms meeting these specs and retailing for \$23.60 US or less are allowed.

D. Bodies

1. Only bodies on USRA-approved GTP body list may be used.
2. Body must cover entire chassis when viewed from above. Cutting into the top of the body for motor, gear, tire, or guide clearance is not allowed. Any cut outs or openings must be the same as on actual car. May cut out rear portion of bodies as long as body is cut to manufacturers cut lines.
3. Bodies must be fully painted. All windows must be clear. Must have 3 numbers.
4. No air control devices may be added. Alterations or additions to the manufacturer's dimensions are not permitted.
5. Must use a 1/24 scale size painted driver/interior, mounted in normal position, and covering entire interior. no flat or thingie interiors allowed. Driver/interior must include helmet, arms, and steering wheel.
6. May reinforce body with Lexan and tape.
7. Maximum height of body is 1.625 inches (41.28 mm).
8. Front wheel wells may be cut out or left clear.

E. Gears

Any gear ratio and any gears may be used. May solder pinion to shaft.

F. Axles, Tires, & Wheels

1. Front axle minimum diameter is 0.047 inches (1.19 mm). Front axle may be bent. May use piano wire or drill blank and axle may be soldered to chassis.
2. May use 3/32 inch rear axle. No hollow or other lightweight axles.
3. Front tires must be made of rubber mounted on separate metal rims, and mounted on front axles. Front wheels and tires must rotate. Minimum diameter is 0.600 inches (15.24 mm).
4. Black rear tires only; minimum tire diameter is 0.750 inches (19.05 mm), maximum tire width is 0.810 inches (20.57 mm).

G. Clearance

Chassis must have 0.062 inches (1.57 mm) rear clearance as measured at the rear axle, including gear. May use Eurosport clearance rules on flat tracks. If Eurosport clearance rules are used, rear tire diameter is unrestricted.

GT-1

All *General Rules* also apply.

A. Chassis

Same as Group 10 Stock Car.

B. Motor

1. Refer to C-Can specifications on page 40.
2. Motors with a retail price of US\$44.53 or less are allowed but meet all specifications for this class.

C. Armature

1. Armatures must be commercially available as defined in *General Rules*, and must be specifically approved for the class.
2. All armatures must meet the following technical requirements:
 - a) armatures must be no less than 0.513 inches (13.03 mm) in diameter.
 - b) Armatures must have a minimum stack length of 0.440 inches (11.18 mm).
 - c) Armatures must be wound with 55 turns of AWG #30 gauge wire (0.0099–0.0101 inches, minus insulation) per pole.
 - d) Armatures may be balanced.
3. Armatures may be reconditioned but not re-sized. Reconditioning to include cleaning, balancing, dyeing, and re-truing of commutator.
4. Must be tagged Group 11, Challenger (CH), Competitor (COM, (COMP), Contender (CON or CTR), or Sportsman (SP).
5. Armatures retailing for US\$23.10 or less are allowed.

D. Bodies

1. Bodies for GT-1 class must be commercially available and approved for competition.
2. Body must cover entire chassis when viewed from above. Cutting into the top of bodies for motor, gear, tire or guide clearance is not allowed. May cut out rear portion of bodies. Bodies must be mounted to manufacturer's existing cut lines.
3. Bodies must be fully painted. All windows must be clear. Must have three (3) scale-sized numbers, decals or painted.
4. No air control devices may be added. Alterations or additions to the manufacturer's dimensions are not permitted.
5. Bodies must have full painted 1/24 scale interior. Chassis or track may not be visible.
6. Front wheel wells may be cut out or left clear.
7. May reinforce with tape and Lexan.
8. Maximum rear height is 1- 5/8 inches (41.28 mm). Body must be cut on manufacturer's cut line.

E. Gears

Any gear ratio is allowed and any gears may be used.

F. Axles, Tires, & Wheels

1. Front axle minimum diameter is 0.047 inches (1.19 mm). Front axle maybe bent. May use piano wire or drill blank and front axle may be soldered to the chassis.
2. May use 3/32 inch rear axle. No hollow or other lightweight axles.
3. Front tires must be made of rubber mounted on separate metal rims, and mounted on front axles. Front wheels and tires must rotate. Minimum diameter is 0.600 inches (15.24 mm).
4. Black rear tires only; minimum tire diameter is 0.750 inches (19.05 mm), maximum tire width is 0.810 inches (20.57 mm).

G. Clearance

Chassis must have 0.062 inches (1.57 mm) rear clearance as measured at the rear axle, including gear. May use Eurosport clearance rules on flat tracks. If Eurosport clearance rules are used, rear tire diameter is unrestricted.

GT-12

A. Chassis

1. Chassis must be commercially-available, and approved for USRA competition.
2. Chassis may be constructed using any materials.
3. Chassis must be available in assembled RTR form.
4. Chassis kits are allowed as long as they are assembled identically to approved RTR chassis. All parts must be in stock location.
 - a) May add lead weight.
 - b) May add a rear motor brace and an upright brace.
 - c) No other modifications are allowed.
5. Chassis meeting these specifications and retailing for US\$51.17 or less are allowed.
6. Manufacturer must provide an assembly instruction sheet. The instructions must explain how to assemble the chassis like the assembled submitted chassis. Subject to the approval of the Scale Division Tech Director, the instructions may include minor modifications to the chassis.

B. Motors & Armatures

C-Cans and X-12 armatures are used. Refer to *C-Can specifications* on page 40. Refer to X-12 armature specification on page 41.

C. Bodies

Same as GTP.

D. Gears

No Restrictions.

E. Wheels, Tires, & Axles

1. Black rear tires only. Minimum rear tire diameter is 0.750 inches,

(19.05 mm), maximum tire width is 0.810 inches (20.57 mm). If Eurosport clearance rules are used, rear tire diameter is unrestricted.

2. Front wheels and tires must rotate. Minimum diameter is 0.600 inches (15.24 mm). Axles must be mounted to chassis.
3. Front tires must be mounted approximately perpendicular to the track; axles may be adjusted to allow this.
4. No hollow or other lightweight axles. May use 3/32 inch rear axles.

F. Clearance

Same as 1/24 Eurosport.

C-12E

A. Chassis

1. Any chassis approved for racing in the scale division retailing for US\$81.65 or less may be used. See approved list for C-12E chassis.
2. Ball bearings allowed.
3. Manufacturer must provide an assembly instruction sheet. The instructions must explain how to assemble the chassis like the assembled submitted chassis. Subject to the approval of the Scale Division Tech Director, the instructions may include minor modifications to the chassis.

B. Setup

1. May use single or quad magnets only.
2. No other restrictions.
3. Ball bearings allowed.

C. Armature

1. Armatures must be tagged with the number 12 or 15 and be mass-produced by a USRA-approved manufacturer.
2. Armatures must be machine wound with a minimum of 50 series-wound turns of AWG #29 wire per pole, which is 0.0112–0.0114 inches in diameter, excluding insulation.
3. Must be commercially available, as defined in *General Rules, Section IX*.
4. Armature stack length shall be a minimum of 0.350 inches (11.18 mm) See *Armature Stack Length* section of *General Rules* for further clarification.
5. Timing may be adjusted to allow for factory variations.
6. No armature minimum diameter.
7. Armatures retailing for US\$32.44 or less may be used but must meet all specifications and rules for C-12 armatures.

D. Bodies

Same as GTP.

E. Race Procedure

Same as 1/24 Eurosport.

1/24 SCALE EUROSPORT

All *General Rules* also apply.

A. Chassis

No restrictions, except for the following: guide length maximum is 5.140 inches (130.56 mm). Measurement is to be made from front of guide post to rear of rear axle.

B. Motor

No restrictions on motor, magnets, armatures, and/or motor cans.

C. Bodies

Same as GTP bodies.

D. Gears & Axles

No restrictions.

E. Tires & Wheels

1. Minimum front tire diameter is 0.600 inches (15.24 mm).
2. Front tires must rotate on their axles.
4. Front tires must be mounted approximately perpendicular to the track.
5. Rear Tires maximum width is 0.900 inches (22.86 mm).

F. Clearance

1. Clearance will be checked at the beginning of the race with no check at the end of the race. However if the car is dragging the track during racing, the race director, at his discretion, may check clearance. Any car found to be dragging the track will be repaired during green flag racing conditions.
2. Clearance shall be 0.032 inches (.81 mm) in rear. This is not recommended for tracks with banking. When racing on banked tracks, a higher clearance (.062 inches, 1.57 mm) should be specified.
3. Gear may not extend below chassis.

1/32 SCALE EUROSPORT

All *General Rules* also apply.

A. Chassis

1. No restrictions, except for the following: guide length maximum 4.275 inches (108.59 mm). Measurement is to be made from front of guide post to rear of rear axle.
2. Maximum width is 2.519 inches (63.98 mm).

B. Motor

No restrictions on motor, magnets, armatures, and/or motor cans.

C. Bodies

1. Bodies must be commercially-available and approved for competition.
2. All interiors must be of correct scale.
3. Maximum rear spoiler height is 1-3/8 inches (34.93 mm).

D. Gears & Axles

No restrictions.

E. Tires & Wheels

1. Minimum front tire diameter is 0.500 inches (12.7 mm).
2. Front tires must rotate on their axles.
4. Front tires must be mounted approximately perpendicular to the track.
5. Maximum rear tires width is 0.650 inches (16.51 mm).

F. Clearance

Same as 1/24 Eurosport.

EUROSPORT RACE PROCEDURE

A. Qualifying

Qualifying order will be determined by a random draw. Each driver will receive one minute of qualifying time to establish his/her single fastest recorded lap time. Qualifying times are used to seed multiple mains. Top eight into A main, next eight into B main, and so on. In the event of an odd number of cars needing Round Robins, the extra car(s) will be added evenly throughout the mains. If this is not possible the extra car will be added to the higher main. Example: Seventeen cars into two mains. Nine in A main and eight into B main.

B. Racing

Racing segments will be comprised of 8 x 5 minute heats. The European lane rotation system will be used. Lane changes be two (2) minutes between heats with work allowed on the cars during this period. However, drivers or pit personnel are not permitted to work on the track at any time. Finishing position to be determined by the total laps completed in all mains. Race winner can come from any main.

SCALE DIVISION APPROVED COMPONENTS

For approved C-Can motors and X-12 arms refer to page 34.

(New Parts for 2005 are in **Bold Type**)

GROUP 10 MOTORS - 16-D

Fast Ones	Twistr FO260DC FO273B FO260 With flat tip magnets in Twistr set-up FO260-FT Twistr 16-D set-up with flat tip magnets FO260-SF Silver Foxx 16-D set-up
Kelly	KE575 Blackmax/Silver Bullet KE580 G2 16-D Setup with new or old hardware KE2000 16-D motor KE2004 16-D and S16-D motor set-up
Parma	Rotor 498IX 499IX Deathstar
RJR	541

GROUP 10 ARMATURES - 16-D

Fast Ones	D-Spec 351 (.518 dia. arm) 350 16-D armature
Mura	2216
Parma	72013 72015
Proslot	706 706 16-D M2 blank 2000 16-D motor 2004 16-D & S16-D motor set-up
RJR	16-D 922B (.518 dia. arm) 946B 16-D (.518 dia. arm)

GT1 ARMATURES

(May also be used for GTP racing.)

Champion	Sportsman
Fast Ones	Contender 360 Contender arm .514 dia. 361 Contender arm .518 dia.
Koford	Competitor
Mura	Challenger

Proslot	Contender 705 Contender M2 blank
RJR	Contender 998B Contender arm .518 dia.

GTP ARMATURES

– SUPER 16-C

Fast Ones	370 Super 16-C arm .513 dia. 371 Super 16-C arm .518 dia.
Mura	Super 16-C
ProSlot	Super 16-C PS700C Super 16-C arm M2 blank
RJR	926B 947B

– SUPER 16-D

(Coating no longer required.)

Fast Ones	355
Kelly	2001 S16-D motor
Parma	S16-D
Proslot	S16-D 700 Super 16-D arm M2 blank with coating 2001 S16-D motor
RJR	Super 16-D 919B

– HORNET/WASP

Fast Ones	365 Hornet arm .514 dia. 366 Hornet arm .518 dia.
Mura	Super Wasp
ProSlot	Super Wasp 704 Super Wasp arm M2 blank
RJR	Hornet arm 994B Hornet arm .518 dia.

GROUP 10 CHASSIS

(Also used with GT-1 and GTP.)

Champion	Turbo Flex Astro XE
JK Products	Scorpion II Cheetah Scorpion III Scorpion III w/heat-treated pan 2909 pan JK2901S

JK Products, con't JK2501S
JK25027 Cheetah 7 0.025
JK25017 Cheetah 7 0.030
JK25047 Cheetah 7, 4-inch 0.030 pans
JK25047 Cheetah 7, 4-inch 0.025 pans
JL25047AL Cheetah 7, 4-inch aluminum pans
2909H

Mossetti 300 Titan
303 Titan w/aluminum pan (any color)

Parma Flexi Kar
Flexi 2
Flexi 3
579 Flexi 4

RadTrax Products RT-55 Gambler

4-1/2 STOCK CAR CHASSIS

Champion TurboFlex

Astro SE

JK Products

One Piece

Scorpion II

JK 25231S

JK2532 Cheetah 7, 4-1/2 inch 0.030

JK2533 Cheetah 7, 4-1/2 inch 0.030 center section

JK25047 Cheetah 7, 4-1/2 inch 0.030 pans

JK25057 Cheetah 7, 4-1/2 inch 0.025 pans

JL25047AL Cheetah 7, 4-1/2 inch aluminum pans

JK2916S

C-12E Chassis

Parma

Flexi 2

Flexi 3

C-12E CHASSIS

FX Racing Products FX90

JK Products JK10761E New C-12 Euro chassis

JK1076E New C-12 Euro chassis

Kelly 1532

1530

Mossetti Racing MR212A New C-12 Euro chassis

Slick 7 496

496A GTC-II C-12E & GT-12 chassis

497

497A GTC-II C-12E & GT-12 chassis

477 - Motor brace to convert 498 & 499
to C-12 Euro chassis

GT-12 CHASSIS

B Slotcar Performance	BSP01
FX Racing Products	FX89 FX92 FX93 FX89 lighter GT-12 with center rails FX89 lighter GT-12 without center rails and center and side bar stiffeners. Note: the FX 89 may be built either way.
JK Products	JK10731E new GT-12 JK1073E kit
Kelly	1922 assembled 1520 kit 1527 1523 new G3 GT-12 1521 G3 kit
Mossetti Racing	200 200A new GT-12
RPM	111
Slick 7	447 447A 447B assembled ASP III 446A 446B kit ASP III 496A GTC-II C12E & GT-12 kit 497A GTC-II CC12E & GT-12 assembled 498 K-1 kit 498A K-2 GT-12 kit 499 K-1 assembled 499A K-2 GT-12 assembled 548 Xtreme GT-12 w/ front bumper body mnts 572 GTX GT-12 447C ASP 4 446C ASP 4 kit. Note: there are 3 options for this kit: <ol style="list-style-type: none">1. Bite bar tubing with upstop,2. No bite bar tubing with pan upstop and pan and downstop,3. No bite bar tubing, no pan upstop or downstop.

GROUP 10 BODIES

JK Products	7321 Monte Carlo 7322 Dodge 7323 Taurus 7324 Pontiac
--------------------	---

Kelly	1723
	1724
	1725
Parma	1081 Monte Carlo
Outisight	200 Monte Carlo
ToyTech	TR-063
	TR-117
	TR-118

4-1/2 STOCK CAR BODIES

JK Products	73121 Dodge
	73131 Taurus
Kelly	1731
	1733
	1737
	1735
Parma	1016 Taurus
	1082 Monte Carlo
Outisight	250 Monte Carlo

GT-1 BODIES

JK	7197 Bentley
	7112 Saleen
	7194 Chrysler LMP
	7195 Courage
	7196 Panoz LMP
	7193 Reynard
	7187 Lola Judd
	7191 Sintura
	7186 Panoz open cockpit
	7176 Toyota
	7192 Audi R8
	7184 BMW V12 LRM
	7185 Cadillac Le Mans
	7177 BMW Le Mans
	7178 Porsche GT1
	7183 Mercedes CLR
	7182 Audi RSC
	7207 Bentley 03 LMP
	7198 MG Lola
	7200 Ascari
	7199 Dome
Kelly	1741 Mercedes
	1740 Porsche
	1742 CLK
	1744 Foxfire GT-1

Parma	1044 Mercedes 1045 Porsche 1048 Dome
Outisight	1083 MG LeMans 088 2K2 Mercedes 062 333 GT-1

GTP BODIES

(Also used with GT-12, C-12E and Eurosport)

Parma	70514 Lola 70513 R8R 70519 Ultimate Intrepid 70506 Intrepid SS 1103 Intrepid 70512 Euro R8R 70519 Lola 70524 Lola HD 70525 Caddy 70526 Caddy HD 70516 Storm
Outisight	065 BMW Short Wing 066 Mercedes Ultimate 066I Mercedes IMCA 066E Mercedes ISRA/Short Wing 067 Cadillac Ultimate 067I Cadillac IMCA 067E Cadillac ISRA/Short Wing 068 Bentley IMCA 069 Bentley Ultimate 084 085 300 BMW ISRA 301 BMW Ultimate
Kelly	1754 Countach 1756 Diablo 1750 Elise 1737 Bimmer 1760 Caddy HD 1753 F1 1759 F1 HD 1755 Enzo 1757 Enzo HD 1761A MK GTP 1761B MK GTP

JK Products	70701 Ultimate Peugeot 70714B 7014U 7073 7070U
ToyTech	K035 BMW TR-166-7 ALMS coupe TR-165-7 ALMS TR124 095 095-7 096 096-7 097 097-7 102 102-7 103 103-7 124-7
FX Products	79 BMW GTP
Best O The West	305 Wildfire GTP

1/32 EUROSPORT BODIES

Outisight	220 221 222 Porsche K8 223 BMW 224 Porsche 917 225 Reynard
JK Products	7012B 7152B K057 Courage C60 K037 Porsche 917
Kelly	1782 1780

NOTES, CORRECTIONS, & ADDITIONS

2004 NATIONAL CHAMPIONS

SCALE DIVISION

1/24 Eurosport –	Paul Gawronski
1/32 Eurosport –	Paul Gawronski
C-12E –	Colin Herzig
GT-12 –	<i>Expert:</i> Greg Gilbert <i>Amateur:</i> James Loconto
GT-1 –	<i>Expert:</i> Ron Hershman <i>Amateur:</i> Jimmy Ross
GTP –	<i>Expert:</i> Roy Hood <i>Amateur:</i> James Loconto
Group 10 –	<i>Expert:</i> Duran Trujillo <i>Amateur:</i> Tyson Joyce <i>Junior:</i> Colin Herzig
4-1/2 Stock Car –	<i>Expert:</i> Paul Ciccarello <i>Amateur:</i> James Loconto

2004 NATIONAL CHAMPIONS

WING-CAR DIVISION

Group 7 –	<i>Pro:</i> Paul ‘Beuf’ Pedersen <i>Semi-Pro:</i> Marcelo Serra
Group 27 –	<i>Expert:</i> Paul ‘Beuf’ Pedersen <i>Amateur:</i> Joe Redmond
Senior Group 7 –	Les Wright
GP-12 –	<i>Expert:</i> Mike ‘Erkle’ Tyliniski <i>Amateur:</i> Shelby Thomas
International 15 –	<i>Expert:</i> Mike ‘Erkle’ Tyliniski <i>Amateur:</i> Johnathan Sohl
Cobalt 12 –	<i>Expert:</i> Pat Ularte <i>Amateur:</i> Bryan Struck
Spec-15 –	Zach Holley

PAST USRA GROUP-7 NATIONAL CHAMPIONS

- 1971 – Dan Bloodworth, Cleveland, OH
- 1972 – Jan Limpach, Cleveland, OH
- 1973 – Joel Montague, Elyria, OH
- 1974 – Jan Limpach, San Antonio, TX
- 1975 – Don Barber, San Antonio, TX
- 1976 – Bob Crane, Greenbelt, MD
- 1977 – Joel Montague, Buena Park, CA
- 1978 – Jan Limpach, Houston, TX
- 1979 – Steve Bogut, New York, NY
- 1980 – Ernie Provetti, Cincinnati, OH
- 1981 – Paul Pfeiffer, Milwaukee, WI
- 1982 – Paul Pfeiffer, Inman SC
- 1983 – Paul Pfeiffer, Centerville, OH
- 1984 – Csaba Szekelyhidi, Clovis, CA
- 1985 – Henry Pena, Houston, TX
- 1986 – P. A. Watson, Detroit, MI
- 1987 – Bob Morton, Chicago, IL
- 1988 – Mike Swiss, Kent, WA
- 1989 – P. A. Watson, Wichita, KS
- 1990 – Mike Swiss, Fayetteville, GA
- 1991 – P. A. Watson, Orlando, FL
- 1992 – Jon Laster, Riverdale, NJ
- 1993 – P. A. Watson, Reseda, CA
- 1994 – Ralph Morella, Marietta, GA
- 1995 – Martin Gramman, Montgomeryville, PA
- 1996 – Paul Ciccarello, Chicago, IL
- 1997 – Paul Ciccarello, Manchester, NH
- 1998 – Rande Marshall, Butler, PA
- 1999 – Paul Ciccarello, Boise, ID
- 2000 – Paul ‘Beuf’ Pedersen, Buena Park, CA
- 2001 – Mario ‘MSP’ Shone, Coram, NY
- 2002 – Paul ‘Beuf’ Pedersen, Buena Park, CA
- 2003 – Mikael Silén, Gaithersburg, MD
- 2004 – Paul ‘Beuf’ Pedersen, Tulsa, OK

Visit our website:

www.usra.us