

Class Rules

2010-2011

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HOCOC Approved Divisions

Classic T-Jets

Super Stock T- Jets

Late Model Sportsman

Fair Grounds

Jalopies

Coupes

Grand Nationals

G-Jets Pro Stocks

SK Modifieds

All Pro Late Models

Any matter, Situation or Spec, not discussed in this rulebook will be determined by the HOCOC Racing Director or Event Steward. Their decision is final.

General Rules-All Divisions

1. O.E.M. – Original manufactures equipment for that make of car.
2. Stock – Readily available direct replacement for that make of car.
3. The number of armature magnets cannot exceed two.
4. No Tire glue or dressing.
5. One guide pin per car. May be glued.
6. Hot Stock Armature – Min. ohms 5.8. May be trued, balanced, expoxied & polished.
7. The procedure for measuring ohms is to average all 3 poles after a 5 min cool-down.
8. Maximum width 1 5/16 (1.3125) inch for all classes, except Sportsman for chassis only, body may be wider.
Body length 3" max. Cars must pass through the tech block freely.

9. Maximum lateral movement for axles: 1/32 (0.0313) inch.
10. Any controller may be used providing that it does not increase the available voltage. No auxiliary batteries, capacitors or supplemental power supply that can supply power to the car after track power is shut off is allowed.
11. New parts protocol. New parts will be legal if they meet the following criteria:
 1. Parts must be readily available for at least 30 days prior to race day.
 2. Parts must be approved by the competition director. The CD will base his decision on the availability of the item, the cost of the item and the possibility of the new part making earlier parts obsolete.

T-Jets - Classic

Summary: The T-Jet class brings back vintage 1960's racing with a mostly stock chassis. Different body styles make up a variety of sub-classes to represent different racing series of the day. This is the slowest chassis that is in competition but it's still big on excitement. The body style used for each scheduled race will be posted in advance.

Chassis Specifications

1. Base Chassis

- 1.1. Manufacturer - Only the copper T-jet chassis from Aurora or the ThunderPlus from Model Motoring Inc., is legal.
- 1.2. Modifications – Chassis base must remain stock without modifications. No venting, lightening or trimming allowed. Chassis gear plate must remain stock without modifications with the exception of the rails running from front to back along each side may be trimmed. Bearing holes must remain stock on the base and plate. No metal bearings allowed. No weight may be added to the chassis.

2. Armature

- 2.1. O.E.M. Aurora, Model Motoring Inc. stock 2 lam motors only with a minimum 16.0 ohms.
- 2.2. Modifications - None. NO balancing, truing, re-winds/de-winds.

3. Electrical System

- 3.1. Base plates – stock copper, no modifications, no soldering, no shunting.
- 3.2. Brushes – copper/carbon composite only and must be O.E.M., Thunder brushes or Wizzard brands. Scoring (X-ing) of motor brushes will be legal.
- 3.3. Shoes - O.E.M. stock copper pick up shoes or similar T-Jet copper replacements such as BSRT brand. Regular or long step permitted. Wizzard shoes allowed.
May be tweaked.

4. Magnets

- 4.1. Type – Any ceramic magnets are legal including Aurora T-Jet, Model Motoring Inc., Johnny Lightning ThunderJet. Any AFX magnets including Super II's, Dash and Auto World .
- 4.2. Modifications – none allowed except ends of JL magnets may be sanded to fit chassis.
- 4.3. Shims – non-ferrous material allowed.

5. Gears

- 5.1. O.E.M Aurora, Model Motoring Inc.
- 5.2. Modifications – None allowed. No beveled or lightened gears. Gears may be polished. Solder or glue may be used to attach gears to shafts. Excessive solder that adds significant weight will not be allowed.

- 5.3. Arm pinion – stock brass 14 tooth.
- 5.4. Idler – stock brass 24 tooth.
- 5.5. Driven – stock brass 24 tooth.
- 5.6. Drive pinion – stock brass 9 tooth.
- 5.7. Crown – stock plastic 15 tooth.

- 6. **Axles** – Open for Int'l Sedans, Mini Stocks (VW Bugs), Jalopy's and Indy cars. Vintage Tin NASCAR (1950-1963) must use the same length axle as O.M.E.

7. **Wheels**

- 7.1 Open for Int'l Sedans and Mini Stocks.
- 7.2 Indy Cars and Jalopy's must run the Aurora Truck, Hot Rod, Dune Buggy rims or after market double flanged rims provided that they are the same dimensions as the Aurora Truck, Hot Rod, Dune Buggy rims.
- 7.3 Vintage Tin NASCAR must run O.E.M. rims or after market double flange rims of the same size as O.M.E.

8. **Tires**

- 8.1 Open, except for Indy Cars, jalopy's and Vintage NASCAR.
- 8.2.1 Indy Cars, jalopy's and Vintage Tin NASCAR Tires must be black.
- 8.2.2 Indy Cars, jalopy's and Vintage Tin NASCAR Tires must be slip on silicone or hard rubber.
- 8.2.3 Maximum tire width for Indy and Jalopy's 0.150 in.
- 8.2.4 Minimum tire diameter for Indy and Jalopy's 0.445 in. front, 0.460 in. rear.
- 8.3.1 Vintage NASCAR tires must be approx. the same size as O.M.E. The entire tire must fit on the rim.
- 8.4.1 Tires are open for Mini Stocks and International Sedans.

9. **Body Specifications**

- 9.1 Hard-shell (Injection, resin cast, styrene) body styles all conform to the same specifications:
- 9.2 Two screws must be used to mount the body to the chassis.
- 9.3 Body may be lowered and lightened but not weighted.
- 9.4 Fender wells may be cut for tire clearance. Jalopy's may remove front fenders.
- 9.5 Car must have both bumpers and windshield if they were originally produced for that model except for jalopy's. Minimum roof height for jalopy's .950 measured from the track to the top of the roof.
- 9.6 Hard-shell body styles to be used are as follows include:
 - 9.6.1. Vintage Tin NASCARs (1950-1963).
 - 9.6.2. Indy (bodies from the '50s and '60s).
 - 9.6.3. International Sedans. Any street legal car or prototype of a street legal car.
 - 9.6.4. Mini Stocks (60's VW Bugs)
 - 9.6.5. Jalopy (1930 - 1949) American 2 door hard top and coaches legal.

T- Jet Super Stock

Summary: SS T-Jets using the Aurora T-Jet chassis. If you are into Super Stock T-Jets then this class is for you.

This chassis class will see several types of bodies being used. to represent different racing series of the day.

The body style used for each scheduled race will be posted in advance. These specs. are the same as the popular ECHORS group.

Chassis Specifications

1. Base Chassis

1.1 .Only original Aurora Thunder Jet chassis assemblies with non-plated copper electrical components are allowed.

Commutator brush springs may be bent to alter brush tension. Pickup shoe hanger plates may be bent.

2. The rolling chassis axle, armature, and drive pinion shaft holes may be opened up slightly for increased clearance.

3. The Truck hole cannot be utilized in any way.

4. The chassis may be trimmed slightly (no more than .010) to allow for crown gear tooth clearance.

5. There shall be no modifications to the chassis other than what is listed above.

6. No bearings, bushings and shims. Spacers are permitted on the axles.

7. Gear plate rails may be cut or sanded only for the purpose of lowering the body and shall only be cut or sanded to the level of the top surface of the gear plate.

8. The gear plate clamp may be bent (but not cut or otherwise altered) to improve fitment.

9. Brush springs may be adjusted only in their original configuration to change the tension on the brushes. They may be dimpled

or a corner may be altered only to prevent the brush from spinning.

10. Guide pins shall be original design, must use a full guide pin, guide pin hole may be countersunk for body screw, no other modifications allowed.

10.1 They shall not be metal.

10.2 Guide pins may be glued to chassis.

10.3 Guide pins may be shortened in length to accommodate different tracks.

11. Brush springs may be adjusted in their original configuration to change the tension on the brushes.

11.1 Brush springs may be glued to the chassis at a point no more than half the distance from the rivet point to the commutator brush

hole in the chassis. No gluing shall be allowed from the point half the distance between the rivet and commutator brush hole to the brush hole.

Pickup Shoes and Springs

1. Pickup shoes and springs shall be solid copper and manufactured by Aurora, Model motoring, American Line ,BSRT (model 504 only), Wizzard,

Slot Tech or Wizzard. Dr. Oogan springs. Ski shoes are not allowed.

2. Pick up shoe springs may be cut (coils removed) to desired length.

3. Pick up shoe springs may be stretched to desired length.

4. Shims may be used between the pickup shoe spring and chassis.

5. Pickup shoe travel may only be adjusted by :

5.1 bending the front "window" portion of the shoe that hooks on the front of the chassis

5.2 bending the hook which attaches to the chassis' copper hardware

5.3 bending the hangers on the chassis into which the rear hook of the shoe connects

5.4 adding heat shrinkable tubing to the top of the front window

6. The "step" in the pick-up shoe must remain intact and be unaltered, except that only the first bend in the step, (Bend #2), may be changed

slightly so that proper "pick-up shoe" to "rail" contact can be achieved. No attempts to "flatten" the "step" are allowed. The area between (Bend #1) and (Bend #2) may be "flattened" to achieve better contact with the "rails"; however, (Bend #1) must remain as stock. (Bend # 1) may be adjusted back toward the chassis to allow the shoe to hang on the chassis nipple. The front vertical slotted portion of the pick-up shoe may be bent to limit shoe travel. The rear hook portion of the pick-up shoe may be bent to limit shoe travel and adjust shoe tension. The chassis' copper pickup retainer may be bent slightly to improve electrical contact

Magnets

1. The only allowable magnets are stock Aurora, Johnny Lightning/Round2 Auto World or Dash.Aurora Super II (Yellow and blue), Johnny Lightning, Auto World or DASH magnets may be used.
2. Magnets may be sanded for fitment. No exaggerated sanding is allowed to close the armature gap. The distance between the magnets must be a minimum of .700" +/- .002".
3. Magnets may be shimmed with non-ferrous material. No shims are allowed either under or on top of the magnets.
4. Magnets may be matched.
5. Magnets shall not be affixed to the chassis by any means.
6. All magnets shall have original factory paint, there shall be no substantial removal of paint. Painting of magnets shall not be allowed.
7. No "reversed zapped" magnets

Armatures

1. With the exception of rule 2 below only original stock, unaltered armatures with gray laminations may be used
2. Armatures may be balanced. You may add weight, cut a vertical notch on one, two or three poles OR you may grind/sand material from one, two or three pole.
3. Armatures shall not be trued. Traces of gray paint must remain visible on all exterior edges of the poles.
4. Armatures shall measure 16 ohms or greater at each pole.
 - 4.1 Only an original Aurora T-Jet pancake gray armature with two laminations, with its original Commutator, and all of its original unmodified windings may be used. The armature may be balanced and trued. Shims between the armature and top plate are not allowed.
5. Each armature pole is to be measured across two separate Commutator segments. The AVERAGE of all three poles must be 16 ohms or greater. i.e.: Pole A measures @ 15.8 ohms, Pole B measures @ 16.2 ohms and Pole C measures @ 16.0 ohms This armature is LEGAL.

All measurements are to be taken at the current available room (ambient) air temperature. The warming of either the Commutator or the armature is not allowed before/during measuring. (The combined total ohm reading of all three armature poles must equal or exceed 48 ohms.)
6. No Hand Wound or rewound or de-wound armatures allowed.

Commutator Brushes

1. Commutator brushes shall be manufactured of a copper/carbon compound.
2. Brushes may be scored with one score line or an X. Brush Tensioners may be slightly "dimpled" to prevent brush spinning. No exaggerated deep cuts or crevices allowed; this will be checked for at tech.

Gears

1. Gears may be lapped and polished. They shall not be beveled or otherwise altered (chamfered,

lightened, or relieved).

2. Gear-tooth friction surfaces can only be de-burred by polishing, filing, or sanding.
3. Gears may be soldered or glued to their respective shafts
4. Plastic top plate gears are not allowed.
5. The armature pinion, idler gear, driven gear and final drive pinion gear shall be brass.
6. Only metal driven-gear shafts may be used. The driven-gear shaft must not exceed .065" in diameter.
7. Shims between the gears and the top plate are not allowed.
8. Only stock T-Jet or commercially available stock replacement 14 tooth brass armature pinion gears are allowed.
9. Only stock T-Jet or commercially available stock replacement 24 tooth brass idler and driven gears are allowed.
10. Only stock T-Jet or commercially available stock replacement 9, 12 or 14 tooth final drive pinion gears allowed.
11. Only stock T-Jet or commercially available stock replacement 15 tooth crown gears are allowed. The crown gear boss may be trimmed; spacer(s) may be added to adjust for proper gear mesh within the crown gear box. You can add a small delrin retainer to either side of the rear axle for the purpose of adjusting crown gear mesh with the rear pinion. The diameter of the delrin retainer must not exceed 0.125" with a thickness not to exceed 0.070". 4 gear specialty chassis crown gears are not allowed.
 - 11.1 The Crown gear shall have 15 teeth and not be metal. The Crown gear minimum diameter will be no less than .300
 - 11.2 The crown gear "boss" may be sanded or trimmed to accommodate different gear ratios.
 - 11.3 The crown gear may be shimmed inside and/or outside the chassis.
 - 11.4 The crown gear "boss" may be sanded or trimmed to accommodate different gear ratios.
 - 11.5 The crown gear may be shimmed inside and/or outside the chassis.

Tires/Wheels/Axles

1. MINIMUM REAR TIRE SIZE SHALL BE .336 at Pre-tech and Final tech.
2. Rear wheels may not be made of Brass or solid Delrin.
3. No axle weights, wheel weights or hub caps allowed on rear axle or inside the wheels.
 - 3.1. **Note:** A small delrin retainer will be allowed on the outsides of rear axle for the purpose of adjusting crown gear mesh rear pinion.
The diameter of the retainer must not exceed 0.125" with a thickness not to exceed 0.070"
4. Spacers shall be made only of plastic, copper, aluminum, brass, or steel. (Outside diameter cannot exceed 0.125 +/- .005)
 - 4.1 Spacers may be used on the rear axle both inside and outside the chassis.
 - 4.1 Axle nuts, spacers or springs must be kept on the outer side of the chassis.
5. All four tires shall simultaneously touch the test track in the static position.
6. The width of the fully assembled tire/wheel/axle assembly shall not exceed 1 and 5/16".
7. Lateral movement of the front tire/axle assembly shall not exceed 1/32" (.03")
8. The front and rear axle diameter must not exceed .065
9. No mixing and matching of front end parts from different manufacturers. This does not apply to tires and o-rings.

Body Specifications

1. Body must be of the hard shell variety with 2 screw posts conducive for mounting the body to the chassis. Any mounting screw may be used.
Non-magnetic screws are recommended so that a loose screw will not be picked up by a passing car, thus causing damage to the car and/or the track.
 - 1.1 Both front and rear screws must be used and must secure the body to the chassis at all times.
2. Bodies must be manufactured by either the process of casting or injection molding and be made of resin or plastic. No feather-light resin allowed.
3. Bodies with cast-in handling pans or exaggerated details - such as unrealistic or inappropriate hood

- scoops, oversized windows, side pipes,
sloped sides, or snow plow noses - are not allowed.
4. No Indy style Formula 1 or Formula style open-wheel bodies will be allowed.
 5. Body may be lowered and lightened but not weighted. No ballast or fillers, other than color pigment, are allowed in the plastic or resin.
 - 5.1 Bodies cannot be heated or reshaped from the original cast of the body.
 - 5.1 Bodies that have a separate roof and windshield casting/molding, and have molded-in interiors (also known as Hardtops, e.g. Aurora's '65 Mustang), may completely remove the interior portion of the body.
 6. Maximum overall body width is 1.200. Accordingly, the body must pass through our 1.2 body-tech device. The maximum thickness of the lower portion of the body, including items such as the front end, rear end, fender flares, and running boards must not exceed 0.125.
 7. With the body mounted securely to the chassis and viewed from above, the body must cover the chassis except through windows and vents.

Unrealistic overly large windows and vents are not allowed.
 8. With the body mounted securely to the rolling chassis and when viewed from the side of the body, the upper edge of the top-plate, minus rails, cannot be above the top of the body as measured at the rear of the top-plate. (i.e.: The horizontal top of the gear plate (base) cannot protrude above the rear window opening). A rear spoiler is not considered part of the body.
 9. Wheel wells may be cut for tire clearance. Front and rear wheel wells may be opened up for tire wheel well clearance. This opening may be no larger than a 1/8-inch drill bit (.125") around the entire wheel well and tire. Wheel wells must not be modified in such a way as to allow the use of any other wheelbase than that which was originally intended by the manufacturer of that body.
 10. Interior may be removed.
 11. Car must have both bumpers and windshield. Bodies must be fitted with all of the manufacturers original or exact-replica bumpers, heads, rollover bars, etc. in their stock locations (this does not apply to Dirt Late Models). The front windshield must be plastic or resin, clear or painted, may be glued in place or molded in, and must fill the frame. Tape windshields are not allowed. Side and/or rear windows may be removed. Rear windshields are optional, but must adhere to this same rule if used. Windshields made from Testor's Window maker are not allowed. There are no Glass requirements for Dirt Late Models.
 12. Cracked or broken body-mounting posts may be repaired or replaced with the use of glue and/or a plastic sleeve around the original post or a plastic rod/tube in place of the broken post.
 13. Other than the plastic post reinforcements, stated in Body Rule 11, no additional weight may be added to the body.
 14. The body classes are as follows:
 - a. Grand Americans (Mid 60's - Mid 70's American Muscle and Pony cars)
 - b. Trans-Am (Late 60's – early 70's Trans–Am series cars)
 - c. Dirt Late Models (modern late model dirt short track cars)
 - d. Can-Am (60's Can-Am bodies)
 - e. Open Body (ECHORS Type/ no specific class type) : The body must be a copy of a 1:1 car and concept cars.

The complete car must weigh at or between 19.0 grams and 24.0 grams.

No "one of "parts allowed on the cars.

If anything is not specifically stated or addressed in the above rules it is NOT permitted.

Late-Model Sportsman - National Sportsman Series

Summary: Aurora, MM, JL, AW T-Jet with hop-up gears, minimum 14.0 ohms, any axle, wheel, tire. The Late-model Sportsman allows vintage Aurora T-Jets and re-issues by MM, JL, AW to compete side-by-side. Late-model NASCAR SPRINT Cup bodies and paint schemes are represented for the modern NASCAR fan.

Chassis Specifications

1. **Base Chassis** – Aurora T-Jet copper chassis, ThunderPlus from Model Motoring Inc., and Johnny Lightning / AutoWorld ThunderJet 500 is legal.
 - 1.1. Modifications – Chassis base must remain stock except the chassis floor adjacent To the pick up shoes tabs maybe trimmed 1/8 inch to allow the use of the #504 BSRT pick up shoes. No other venting, lightening or trimming allowed. Chassis gear plate must remain stock without modifications with the exception of the rails running from front to back along each side may be trimmed to facilitate lowering of the body. Bearing holes must remain stock on the base and plate. No metal bearings allowed. No weight may be added to the chassis. **Minimum Weight 22 grams.**
2. **Armature**
 - 2.1. Arm and base chassis must match original manufacturer for Aurora, MM, JL, AW and must remain stock. Aurora base chassis may use any Aurora armature with 2 lams.
 - 2.2. Minimum 14 ohms
 - 2.3. Modifications
 - 2.3.1. Balancing – none allowed
 - 2.3.2. Truing – none allowed
 - 2.3.3. Re-winds/de-winds – none allowed
3. **Electrical System**
 - 3.1. Base plates – stock, no modifications, no soldering, no shunting.
 - 3.2. Brushes – copper/carbon composite only and must be O.E.M., Thunder brushes or Wizzard brands.
 - 3.3. Shoes.- O.E.M. stock pick up shoes and similar T-Jet replacements such as BSRT brand. Regular or long step permitted. Wizzard shoes allowed. May be tweaked..
4. **Magnets**
 - 4.1. Type – Any ceramic magnets are legal including Aurora T-Jet, Model Motoring Inc., Johnny Lightning ThunderJet. Any AFX magnets including Super II's are allowed.
 - 4.2. Modifications – none allowed except ends of JL magnets may be sanded to fit Aurora chassis.
 - 4.3. Shims – non-ferrous material allowed.
5. **Gears**
 - 5.1. Top Plate Gears (driven, idler, and armature) must be O.E.M for Model Motoring, Aurora, and JL. The drive pinion may be any readily available stock 9,12 or 14 tooth brass gear.
 - 5.2. Modifications – None allowed. No beveled or lightened gears. Gears may be polished. Solder or glue may be used to attach gears to shafts. Excessive solder that adds significant weight will not be allowed.
 - 5.3. Arm pinion – stock 14 tooth.
 - 5.4. Idler – stock 24 tooth.
 - 5.5. Driven – stock 24 tooth.
 - 5.6. Drive pinion – 9, 12 or 14 tooth.
 - 5.7. Crown – stock plastic 15 tooth.

- 5.8. Crown gear hub may be shaved or spacers added to maintain proper mesh.
- 5.9. Any cluster gear shaft may be used.

6. **Axles** – Any.

7. **Wheels** – Any.

8. **Tires** – Any tire.

9. **Body Specifications**

9.1. Bodies must be a hard-shell injection mold or resin cast NASCAR NEXTEL Cup style. Only bodies from 1990 to present are legal.

9.2 The following bodies are legal:

9.2.1 Tyco/Mattel Lumina, Monte Carlo, Grand Prix, Taurus and T-Bird.

9.3.2 Life Like Monte-Carlo, Grand Prix, Taurus and Intrepid.

9.4.3 BRP and other resin cast bodies are legal as long as they are the wide version.

9.5.4 Narrow Life Like bodies with flares are not legal.

9. 3. Bodies must be attached to the chassis by 2 screws and body posts.

9.4. Bodies must be mounted squared/evenly.

9.5. Bodies may be lowered but must retain their stock appearance.

9.6. Rocker Panels must be intact.

9.7. Fenders may be trimmed for wheel clearance but when viewed from above no part of the tire may be seen.

9.8. When viewed from the side both front and rear tires must be fully visible.

9.9. Bodies should be presented in a professional appearance.

10. Bodies do not have to be a true-to-life model.

11. Full glass must be intact. May be part of the molded body or replaced with clear lexan.

Grand Nationals

Summary: The Grand National brings back vintage racing with a super stock T-Jet and a true replica of a vintage NASCAR Grand National series stock car entry from the 60's – 70's.

Chassis Specifications

1. **Base Chassis** - Only the copper T-jet chassis from Aurora or the ThunderPlus from Model Motoring Inc., is legal.
 - 1.1. Modifications – Chassis base must remain stock without modifications. No venting, lightening or trimming allowed. Chassis gear plate must remain stock without modifications with the exception of the rails running from front to back along each side may be trimmed. Bearing holes must remain stock on the base and plate. No metal bearings allowed. No weight may be added to the chassis.
2. **Armature**
 - 2.1. Aurora or MM stock arm.
 - 2.2. Minimum 5.5 ohms
 - 2.3. Modifications
 - 2.3.1 Balancing – none allowed
 - 2.3.2 Truing – none allowed
 - 2.3.3. Re-winds/de-winds – none allowed
3. **Electrical System**
 - 3.1. Base plates – stock, no modifications, no soldering, no shunting.
 - 3.2. Brushes – Any copper or silver composites are allowed. Brushes may be grooved or domed.
 - 3.3. Shoes - Copper pick up shoes and similar T-Jet replacements such as BSRT brand. Regular or long step permitted. Wizzard shoes allowed.
May be tweaked.
4. **Magnets**
 - 4.1. Type – Any ceramic magnets are legal including: Aurora T-Jet, Model Motoring Inc., Johnny Lightning ThunderJet. Any AFX magnets including Super II's, Dash and Auto World.
 - 4.2. Modifications – none allowed except ends of JL magnets may be sanded to fit chassis.
 - 4.3. Shims – non-ferrous material allowed
5. **Gears**
 - 5.1. Modifications – Gears may be polished, beveled, or lightened. Solder or glue may be used to attach gears to shafts.
 - 5.2. Arm pinion – stock brass 14 tooth.
 - 5.3. Idler – stock brass 24 tooth.
 - 5.4. Driven – stock brass 24 tooth.
 - 5.5. Drive pinion – stock brass 9, 12 or 14 tooth.
 - 5.6. Crown – stock plastic 15 tooth or 19 tooth (AFX Super II) only.
6. **Axles** – Any.
7. **Wheels** – Semi or deep dish. Approx. same size and style for all 4.
8. **Tires**
 - 8.1. Manufacturer - any
 - 8.2. Types – tires must be slip-on and must be black.

8.3. Width requirements - Front tire minimum width is 3/16th inch (0.1875).

Body Specifications

1. **Body must be a replica** of a NASCAR Winston Cup car, ARCA late-model or USAC late-model that competed from 1964-1976.
2. Bodies **must be** presented in a professional appearance.
3. Lexan bodies not allowed. Bodies must be molded by casting or injecting.
4. Full glass must be intact.
5. Weights permitted on narrow bodies only but must be attached to the body and not visible from outside the body.

Coupes (old Time NASCAR Modifieds)

Summary:

Cars must have headers, bumpers, nerf bars, etc. as seen on real coupes. Several vendors sell complete bodies and detail parts.

Chassis Specifications

1. **Base Chassis** - Aurora AFX (non-magnatraction), Aurora copper Tjet or Tuff Ones chassis, Johnny Lightning Tjet, Auto World TJet, Model Motoring Inc. ThunderPlus.
 - 1.1. Modifications are allowed except for the area below the magnets.
 - 1.1.1. Venting – allowed.
 - 1.1.2. Lightening – allowed.
 - 1.1.3. Weights – allowed, including pans.
 - 1.1.4. Bearings allowed.
2. **Armature**
 - 2.1. Manufacturer – Any pancake armature
 - 2.2. Minimum ohms - no limits
 - 2.3. Lams – any number of lams
 - 2.4. Modifications – Balancing, truing, re-winds/de-winds are all allowed.
3. **Electrical System**
 - 3.1. Electrical system may be copper, silver, gold or any combination of materials.
 - 3.2. Shoes – any shoe allowed May be tweaked.
 - 3.3. Base plates may be soldered or shunted
 - 3.4. Brush holes may be replaced with cups
 - 3.5. Brushes may be any material and shape but must be present. Only brushes may contact the commutator. No shunts may contact the commutator.
4. **Magnets**
 - 4.1. Any ceramic magnet is allowed.
 - 4.2. Magnets may not be glued.
 - 4.3. Shims – non-ferrous material allowed.
 - 4.4. Shaping and grinding is allowed.
 - 4.5. Magnets are to be used for to drive the motor only, not handling.
5. **Gears** – no restrictions
6. **Axles** – no restrictions.
7. **Wheels**
 - 7.1. Manufacturer – any.
 - 7.2. Type – AFX cars must use rear wheels that support slip-on silicon tires. T-Jet cars may use silicone-sponge wheels in the rear.
 - 7.3. Style – all wheels must be deep dish only on front and back for both AFX and Tjet cars.
 - 7.4. Wheel base width is 1 and 5/16 (1.3125) inch maximum.
 - 7.5. All 4 wheels must be on the track.
 - 7.6. Maximum lateral movement of wheels is 1/32 (0.0313) inch.
8. **Tires**
 - 8.1. Manufacturer - any
 - 8.2. Types – AFX cars must use slip-on tires on the rear. T-Jet cars may use any rear tire.

- 8.3. Width - Front tire width must be 3/16 (0.1875) inch minimum.
- 8.4. Black tires only

Body Specifications

1. Car Make/Model – Bodies must be a NASCAR type modified that competed during the years 1965 through 1971.
 - 1.1. Manufacturer – any, including scratch-built.
 - 1.2. Prototypes – not required but encouraged.
 - 1.3. Detailing and numbering – numbers required.
 - 1.4. Appearance – Cars must be neat in appearance. Cars must have the following Details: Front bumpers/push bars, rear bumper, Side nerf bars, air cleaner, fuel cap, hood pins Modeled or painted on, headers, radiator. Windows nets are preferred.
2. Type
 - 2.1. Hard shell injection molded, resin cast and Lexan permitted.
 - 2.2. Modifications allowed including venting, lightening, weighting.
3. Mounting may be done with screw posts, body mounts/tabs, clips, pin mounts/pins, tape, velcro
4. Windshields - optional
5. A/FX chassis tabs must not be exposed through doors.

Fair Grounds

Summary: This class is based on cars that you would find competing on any given Saturday Night on short tracks both Dirt and Asphalt across America during the 60's and 70's.

Chassis Specifications

1. Base Chassis

- 1.1. Manufacturer – Aurora, Johnny Lightning, Auto World
- 1.2. Modifications – none, except the mounting tabs may be removed and replaced with braces if a narrow body is mounted in which also the drilling of 1 hole in the front of the chassis will be permitted to allow the use of a screw for body mounting purpose only.
 - 1.2.1. Venting – none.
 - 1.2.2. Lightening – none.
 - 1.2.3. Weighting – none.
 - 1.2.4. Bearings – none.

2. Armature

- 2.1. Manufacturer – O.E.M. Aurora, JL, AW
- 2.2. Minimum ohms - 14.0
- 2.3. Lams – 3 lams.
- 2.4. Modifications
 - 2.4.1. Balancing – none.
 - 2.4.2. Truing – none.
 - 2.4.3. Re-winds/de-winds – none.

3. Electrical System

- 3.1. Manufacturer – O.E.M.
- 3.2. Shoes – any. May be tweaked.
- 3.3. Base plates – no modifications

- 3.4. Brush cups –none allowed
- 3.5. Brush springs - stock
- 3.6. Brushes - stock
- 3.7. Modifications
 - 3.7.1. Soldering - none
 - 3.7.2. Shunts - none

4. Magnets

- 4.1. Type – ceramic only
- 4.2. Strength – any.
- 4.3. Modifications – none, no reshaping or grinding
- 4.4. Shims – non-ferrous material allowed.

5. Gears – no restrictions.

6. Axles – no restrictions

7. Wheels

- 7.1. Manufacturer – any.
- 7.2. Types – any.
- 7.3. Wheel base – maximum width 1 and 5/16 inch.
- 7.4. Lateral movement of wheels is 1/32 inch.

8. Tires

- 8.1. Manufacturer - any
- 8.2. Slip-on silicone rear tires only
- 8.3. Width requirements – none
- 8.4. All 4 tires must be on the track.

Body Specifications

- 1. Car Make/Model - American 2 door model from 1953-1975. Corvettes not allowed. Bodies with bubble fenders are not allowed. Cars should look like those that competed at fair grounds during the 60's and 70's.
 - 1.1. Manufacturer – any.
 - 1.2. Prototypes – not required.
 - 1.3. Detailing and numbering – numbers required.
 - 1.4. Appearance – neat.
- 2. Type - must be hard-shell injection mold or resin cast.
 - 2.1. Manufacturer - any
 - 2.2. Modifications
 - 2.2.1. Venting - allowed
 - 2.2.2. Lightening - allowed
 - 2.2.3. Weighting – none
 - 2.2.4. Lowering – Bodies may be lowered but tires must not protrude through the top of the fender wells. Bubble fenders not allowed.
- 3. Mounting
 - 3.1. Screw posts – allowed.
 - 3.2. Body mounts/tabs – allowed.
 - 3.3. Clips – Cobra body mounts allowed.
 - 3.4. Pin Mounts/Pins – none.
 - 3.5. Tape – allowed.
- 4. Windshields
 - 4.1. Front - Not required and may be removed.
 - 4.2. Back – Not required and may be removed.
- 5. Bumpers
 - 5.1. Not required and may be removed

SK Modifieds

Summary: The SK Modifieds class represents late model east coast asphalt modifieds.

Chassis Specifications

1. Base Chassis

- 1.1. Manufacturer – Tyco or Mattel 440-X2, Life-Like “M” chassis
- 1.2. Modifications – The bottom of the chassis may be sanded
 - 1.2.1. Venting - none
 - 1.2.2. Lightening - none
 - 1.2.3. Weighting - none
 - 1.2.4. Bearings - none

2. Armature

- 2.1. Manufacturer – O.E.M. or hot stock replacements allowed.
- 2.2. Minimum ohms 5.8
- 2.3. Modifications
 - 2.3.1. Balancing (epoxy, solder) – allowed
 - 2.3.2. Truing - allowed
 - 2.3.3. Re-winds/de-winds – none allowed

3. Electrical System

- 3.1. Shoes – O.E.M. or stock replacement allowed including silver plated shoes. Shoe tabs may be pinned. May be tweaked.
- 3.2. Brush barrels – O.E.M. or threaded brush barrels allowed. Barrels may be epoxied in place. Barrel heat sinks allowed. The 440-X2 chassis may have holes drilled to install brush barrels. Empty holes will be considered venting which is illegal.
- 3.3. Brushes - O.E.M. or stock replacement allowed
- 3.4. Modifications
 - 3.4.1. Tyco Bulkheads may not be altered except for the purpose of drilling to allow the installation of bushings.
 - 3.4.2. Shunting – none allowed

4. Magnets

- 4.1. Type - O.E.M. or ceramic replacements only.
- 4.2. Strength - any
- 4.3. Modifications - none
- 4.4. Flux collectors not allowed except LL M flux collectors which must remain stock.

5. Gears

- 5.1. No restrictions on gears
- 5.2. Spacers permitted

6. Axles

- 6.1. No restrictions on axles
- 6.2. Spacers permitted
- 6.3. Front and/or rear axle may be pinned or retained without adding significant weight.

7. Wheels

- 7.1. No restrictions on wheels

7.2. Maximum lateral movement 1/32 (0.0313) inch

8. Tires

- 8.1. O.E.M. or slip-on silicone only
- 8.2. Minimum front tire width is 3/16 (0.1875) inch
- 8.3. All 4 tires must be on the track

9. Body Specifications

- 9.1.1 Bodies must be a NASCAR/East Coast/IMCA Modified body representative of years 1975 to present.
- 9.1.2 Bodies do not have to replicate a prototype.
- 9.1.3 Numbers must be on both doors and/or roof and trunk of the vehicle.
- 9.1.4 Cars must be neat in appearance.
- 9.1.5 Bodies should have body details such as hood pins, window nets, fuel caps and should be highlighted by painting.
- 9.1.6 Windshields and/or netting are not required.
- 9.1.7 Bodies may be of lexan, styrene, paper only
- 9.1.8 Bodies must be securely mounted to the chassis by means of Pin tubes/Pins or Double-sided tape
Poorly mounted bodies will be Black Flagged.

All Pro Late Models

Summary: This division is modeled after both the NASCAR Sprint Cup & the NASCAR Nationwide series. The running gear and specs are national rules which will allow a competitor to run this vehicle in many areas throughout the country.

Chassis Specifications

1. Base Chassis

- 1.1. Tomy G-plus, BSRT G3, Wizzard Patriot 2, 3, or Wizzard Storm chassis only.
- 1.2. Modifications
 - 1.2.1. Venting - none
 - 1.2.2. Lightening - none
 - 1.2.3. Weighting - none
 - 1.2.4. Bearings - none
 - 1.2.5. Drilling permitted for pin tubes.
 - 1.2.6. Drilling permitted for rear axle retaining pins.

2. Armature

- 2.1. OEM or Hot Stock armatures only.
- 2.2. Minimum ohms 5.8
- 2.3. Modifications
 - 2.3.1. Balancing (epoxy, solder) legal (hot stock).
 - 2.3.2. No Re-winds/de-winds
 - 2.3.3. Timing must be OEM

3. Electrical System

- 3.1. Stock parts only.
- 3.2. Any stock Shoes May be tweaked.
- 3.3. OEM Base plates
- 3.4. Any stock brush barrels
- 3.5. Any stock brush springs
- 3.6. Any stock brushes
- 3.7. Modifications
 - 3.7.1. No Soldering

3.7.2. No Shunting

4. Magnets

- 4.1. Type - O.E.M. or ceramic replacements only.
- 4.2. Strength - any
- 4.3. Modifications - none
- 4.4. Flux collectors not allowed

5. Gears

- 5.1. No restrictions on gears
- 5.2. Modifications
 - 5.2.1. Gears may be trued, drilled, polished.

6. Axles

- 6.1. No restrictions on axles

7. Wheels

- 7.1. No restrictions on wheels.
- 7.2. Wheel base must be OEM.
- 7.3. Maximum lateral movement 1/32 (0.0313) inch.

8. Tires

- 8.1. No restrictions on tires.
- 8.2. All 4 tires must touch the track.

9. Body Specifications

- 9.1 NASCAR type late model stock car bodies only.
- 9.2 Bodies do not have to be copied from a prototype but should be professional in appearance and have the same details as a NASCAR Nextel type car would have: window nets, gas caps, grilles, etc. Cars do not have to be painted to resemble a certain NASCAR car but must be neatly painted and numbered. Windows must be clear.
- 9.3 Numbers must be on both doors and the roof.
- 9.4 Years legal 1990 to present. No pony cars. Full size bodies only (Monte Carlo, Lumina, T-Bird, Taurus, Dodge, Pontiac, etc.)
- 9.5 Lexan bodies only. No venting, rear deck panel may not be removed.
- 9.6 Mounting
 - 9.6.1 Pin tubes/Pins allowed
 - 9.6.2 Double-sided tape allowed
 - 9.6.3 Bodies must be securely mounted to the chassis. Cars with poorly mounted bodies will be Black Flagged.

PRO STOCKS (G-Jets)

Summary: This class is a universal class that is run throughout the country with standardized rules which enables a driver to race just about anywhere.

Chassis Specifications

1. Base Chassis

- 1.1 Manufacturer – The chassis must be a stock BSRT G3 Flexible chassis with any hardness clip.
- 1.2 Modifications – Chassis cannot be modified except to add body mounts in their stock position and the front axle holes may be reamed to .052
- 1.3 Guide Pin shall be stock or BSRT stock replacement in the stock position.

- 1.4 The use of glue may be used for the body mounts and guide pin only.
- 1.5 BSRT G-Jet marked handling weights shall be used. Weights shall be used in their stock position.
- 1.6 No weights shall be added. Weights shall not be modified. If using the light (.120) traction weights you must use the BSRT traction weight spacers with a minimum thickness of .045

2. Armature

2.1 Armature shall be a stock or hot stock BSRT G-Jet narrow gap design and be a minimum of 9 ohms.

2.2 Modifications – Armature bushings shall be stock G-Jet or BSRT stock replacement and shall be installed without modification to the chassis and/or bulkhead. Bushings may be reamed and chamfered. No ball bearings.

3. Electrical System

3.1 All Electrical system parts shall be stock or BSRT stock replacement. BSRT helper springs allowed. No solder. No shunts.

4. Magnets

4.1 The armature magnets shall be BSRT stock G-Jet and cannot be cut. Magnets shall remain in their stock position. No method or material may be used to restrict movement of the magnets. No additional magnets may be used.

5. Gears

5.1 Pinion gear must be a stock G-Jet 7T or BSRT stock replacement.

5.2 Crown gear must be a stock G-Jet or a BSRT 21T. Gears may be lighten and spacers permitted.

6. Axles

6.1 Front axle shall be stock with no modifications. Rear axle open.

7. Front Tires/Wheels

7.1 G-Jet non – independent O-ring rims shall be stock and un–modified. Front tires must be stock and un-modified and be a minimum tire diameter of .350.

8. Rear Tires/Wheels

8.1 Rear tires must be black silicone on black sponge BSRT G-Jet AST tires with a minimum diameter of .450. Rear rims may be lighten.

9. Body Specifications

9.1 Lexan bodies only. No venting, rear deck panel may not be removed.

9.2 NASCAR type late model stock car or NASTRUCK (NASCAR TRUCKS) bodies only.

Bodies do not have to be copied from a prototype but should be professional in appearance and have the same details as a NASCAR type car/truck would have: window nets, gas caps, grilles, etc. Bodies do not have to be painted to resemble a certain NASCAR car/truck but must be neatly painted and numbered. Windows must be clear. Numbers must be on both doors and the roof. No pony cars. Years legal 1987 to present.

Full size bodies only (Monte Carlo, Lumina, T-Bird, Taurus, Dodge, Pontiac, Camry etc.)