



# ***2015 Club Rules***



**DAYTON** **SLOT CAR RACING**  
*Club*

## DAYTON SLOT CAR CLUB G3 GTP/INDY RULES

NOTE: The following rules are designed to keep racing in our club competitive and affordable. **If it does not say you can do it, don't assume you can.** If there is a rule that is unclear, bring it up for discussion with the club and we will clarify the rule or take care of editing the rule as needed.

### BODY GTP

Body must be a hard plastic factory produced AFX/Tomy GTP with closed cockpit. Body must use the stock chassis mounting clip. (The mounting clip may not be modified in any way.) The mounting clip may not be glued to the chassis. (Tape or some type of padding may be added to the under side of body to help it fit better to body mount. 90% of the original body must be in tact. Rear wings may be removed. Tail section of body must extend past the rear of the chassis. Cars must have original windshield. Headlights may be removed. No weight may be added to the body.

### BODY INDY

Body must be a hard plastic AFX/Tomy Indy stock body. Body must use its stock chassis mounts. Rear wings must be in tact. Front wings are preferred but not mandatory.

### CHASSIS

Can be a stock Tomy AFX G-Plus, Scale Auto G3, Scale Auto G3® R-version, or G3® G-Force chassis. (model 901 or 902) Chassis must remain completely stock with one exception. (Axle holes may be enlarged slightly so axles can rotate freely) No bearings may be added to the chassis. Flexible, Medium, and Stiff chassis are all legal.

### ELECTRICAL

Pick-up shoes that came on the factory chassis are legal as well as low profile ski shoes manufactured by Scale Auto. (Current part #249) No gold plated shoes are allowed. Scale Auto makes at least 3 different size pick-up shoe springs. (Heavy, Medium, Soft) All are legal. Most racers use the factory stock springs. Helper springs are not allowed. You may adjust the pick-up spring tension. You may not weight or add anything to the pick-up shoes. Pick-up shoe tips on regular shoes may be folded down to simulate the low profile shoes. Pick-up shoe holders must be factory stock. No gold plated shoe holders are allowed. The tips may be angled to help pick-up shoes remain in tact during hard crashes.

### MOTOR

You can only run a factory stock armature. It may NOT be balanced. It may be trued on a com lathe. Spacers may be used on front and rear of motor. Brush bell housing must be a Tomy AFX or Scale Auto factory stock part. No gold plated bell housings are allowed. Timing bracket must be factory stock. (Part #926 may be used in all three chassis types) You can run factory stock motor magnets that came in the original G-Plus and G3 chassis in their stock positions. High-energy G-Force™ C4 Ceramic-Grade motor magnets (part # 290) are also legal. They are easily identified by a red factory dot or an imprint. Magnet on passenger side of chassis is painted white on top. No motor magnet spacers are allowed. All motor bearings must be factory stock. Beedle and ball bearings are not allowed.

### GEARS

You can run stock Tomy AFX or Scale Auto plastic or delrin gears only. Pinion must be a 7 or 8 tooth gear. Crown may be a 25, 24, 23, 22, 21 or 20 tooth gear. Spacers may be used on axle between Chassis frame walls to space crown gear instead of using a gear boss. The crown gear boss spacer may be reversed or removed if desired.

### TIRES AND RIMS

You may run any type of slip-on silicon rear tires. See next page for more information on the Super Tires. No sponge silicone tires allowed. Any brand of rims are allowed including double flanged varieties. Axle must be a stock AFX or Scale Auto factory part. Independent front ends are legal.

### REAR TRACTION MAGNETS

You can run factory stock traction magnets that came in the original G-Plus and G3 chassis in their stock positions. High-energy G-Force™ C4 Ceramic-Grade traction magnets (part #284) are also legal. They are easily identified by a red factory stripe. Scale Auto white plastic spacers or spacers that are equal to Scale Auto Specs may be used to install the Tomy AFX magnets into the older G3 Chassis. These magnets will not fit into the newer 902 chassis.

G-3 races will be run at 18.5 volts +/- .25 volts.



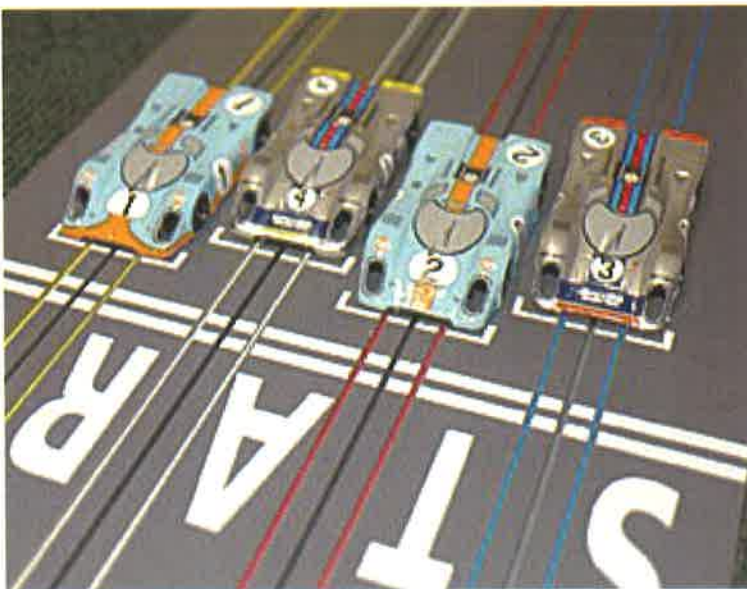
<b>A COMPOUND - SOFT - FOR PLASTIC TRACKS</b>				
<b>Part #</b>	<b>Tire Color</b>	<b>.250 Rim</b>	<b>.275 Rim</b>	<b>.300 Rim</b>
380	Tan	.420	.436	.454
381	Royal Blue	.424	.440	.458
382	White	.428	.444	.462
383	Forest Green	.432	.448	.466
384	Red	.436	.452	.470
<b>B COMPOUND - FIRM - FOR CONTINUOUS RAIL TRACKS</b>				
390	Gray	.420	.436	.454
391	Black	.424	.440	.458
392	Light Blue	.428	.444	.462
393	Blue	.432	.448	.466
394	Dark Gray	.436	.452	.470



## G-Jet® National Car Class Rules (2011 season)

NOTE: The following rules are designed to keep racing in our club competitive and affordable. If it does not say you can do it, don't assume you can. If there is a rule that is unclear, bring it up for discussion with the club and we will clarify the rule or take care of editing the rule as needed.

- 1) Cars eligible to compete in this class include the BSRT G-Jet®.
- 2) The chassis must be a stock BSRT G3® R-version Flexible chassis with Flexible traction weight clip. The chassis cannot be modified except to add body mounts and the front axle holes may be reamed to .052". Body mounts must be located in the stock locations.
- 3) The armature magnets must be BSRT G3® Ceramic or BSRT G-Force™ Ceramic-Grade material and cannot be cut. Magnets must remain in their stock position.
- 4) Armature must be a stock BSRT G-Jet®, narrow gap design, and be a minimum of 9-ohms. BSRT G-Jet® 9-ohm Hot Stock™ armature may be substituted for the stock unit.
- 5) Armature bushings must be stock or BSRT stock replacement (no ball bearings allowed). Bushings may be reamed, chamfered, and polished.
- 6) All electrical system parts must be stock or BSRT stock replacement.
- 7) Front axle and non-independent G-Jet® O-ring rims must be stock and unmodified. Front O-rings must be stock and be a minimum tire diameter of .350"
- 8) Rear tires must be BSRT stock #880 that measure a minimum diameter of .450" on #879 .275 BSRT double flanged rims with a stock or BSRT stock replacement rear axle. Front and rear rims cannot be drilled or lightened.
- 9) BSRT G-Jet® marked handling weights must be used. Weights must be used in their stock location. Weights may not be modified.
- 10) Gears must be stock or BSRT stock replacement. Gears may not be lightened. Axle spacers and/or gear spacer may be used to aid with gear mesh.
- 11) The guide pin must be stock or BSRT stock replacement in the stock position.
- 12) Glues/adhesives are not allowed on the chassis except to attach the body mounting system and retain the guide pin.
- 13) Any scale appearing vacuum-formed body may be used. Bodies must be a minimum of .010" thickness. Body class (i.e. NASCAR, Can-Am, Trans-Am, etc.) will be specified for each event.  
We also may run Indy or GTP hard bodies from our regular G3 Class.
- 14) G-Jet® races shall be run at 12.0 volts +/- .25 volts.



## ECHORR Super Stock T-Jet RULES

NOTE: The following rules are designed to keep racing in our club competitive and affordable. If it does not say you can do it, don't assume you can. If there is a rule that is unclear, bring it up for discussion with the club and we will clarify the rule or take care of editing the rule as needed.

The complete car must weigh at or between 19.0 grams and 24.0 grams.  
The complete car must freely pass through a standard 1.3125 (1 and 5/16) HO tech block.

### Body Regulations:

1. Body: The body must be a copy of a 1:1 car and concept cars.
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 must be originally manufactured with the intention of being mounted with the use of two (2) screws via two (2) body-mounting posts on a/an: Aurora Model Motoring (which includes: Vibrator, Thunder Jet, Wild Ones, Tough Ones and Xlerators), Bachmann, Faller, Model Motoring Thunder Plus, Marx, Eldon or Tyco S series HO chassis.
4. 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.
5. No Indy style Formula 1 or Formula style open-wheel bodies will be allowed.
6. No ballast or fillers, other than color pigment, are allowed in the plastic or resin.
7. 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.
8. 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.
9. 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.
10. Bodies must be fitted with all of the manufacturers original or exact-replica bumpers, heads, rollover bars, etc. in their stock locations.
11. 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.
12. Other than the plastic post reinforcements, stated in Body Rule 11, no additional weight may be added to the body.
13. The body may be lowered and lightened by removing material through the process of grinding or scraping as long as Body Rule 9 is not violated. Bodies cannot be heated or reshaped from the original cast of the body.
14. 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.
15. 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.

**ECHORR Super Stock T-Jet RULES (continued)**

16. 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.
17. 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.
18. Both front and rear screws must be used and must secure the body to the chassis at all times.

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.

Any new bodies must be submitted to ECHORR at least 60 days before the ECHORR Challenge to be legal for the event. Bodies previously approved and no longer on market will be grandfathered in as approved, these include: Fandango, Moonstone, GoGo, BRP, Bubba Shells, etc. as long as they meet all of the other body requirements.

**Thunder Jet Rolling Chassis Assembly Regulations:**

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 rolling chassis assembly must not be fitted with bushings.
5. The chassis may be trimmed slightly (no more than .010) to allow for crown gear tooth clearance.
6. Gear plate rails may be cut or sanded only for purposes of lowering the body, and shall only be cut or sanded to the level of the top surface of the gear plate. Rails must remain entirely under the gear plate clip.
7. 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.
8. 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. They shall not be metal.
9. Guide pins may be glued to chassis.
10. Guide pins may be shortened in length to accommodate different tracks.
11. The gear plate clamp may be bent (but not cut or otherwise altered) to improve fitment.

**ECHORR Super Stock T-Jet RULES (continued)**

## Armatures:

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.
2. 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.)
3. Any flat top and bottom carbon/copper motor brushes are allowed. 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.

No Hand Wound or rewound or de-wound armatures allowed.

## Gears:

1. Only stock T-Jet or commercially available stock replacement 14 tooth brass armature pinion gears are allowed.
2. Only stock T-Jet or commercially available stock replacement 24 tooth brass idler and driven gears are allowed.
3. Only stock T-Jet or commercially available stock replacement 9, 12 or 14 tooth brass drive-pinion gears are allowed.
4. 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.
5. The Crown gear shall not be metal.
- 5a. The Crown gear minimum diameter will be no less than .300
6. The crown gear "boss" may be sanded or trimmed to accommodate different gear ratios.
7. The crown gear may be shimmed inside and/or outside the chassis.
8. Gears may be soldered or glued to their respective shafts.
9. Only metal driven-gear shafts may be used. The driven-gear shaft must not exceed .065" in diameter.
10. Gear-tooth friction surfaces can only be de-burred by polishing, filing, or sanding.
11. Gears must not be chamfered, lightened, or relieved.
12. 10 and 11 tooth pinion gears are not allowed.
13. Plastic top plate gears are not allowed.

Shims between the gears and the top plate are not allowed.

**ECHORR Super Stock T-Jet RULES (continued)****Magnets**

1. Aurora Super II (Yellow and blue), Johnny Lightning, Auto World or DASH magnets may be used. The magnets may be sanded to fit the chassis. The distance between the magnets must be a minimum of .700"; no exaggerated sanding is allowed to close the armature gap. This will be teched using our custom-designed, specially fabricated Plug.
2. Magnets may be sanded for fitment.
3. Magnets may be matched.
4. Magnets shall not be affixed to the chassis by any means.
5. All paint on magnets shall have original factory paint. There shall be no substantial removal of paint.
6. Painting of magnets shall not be allowed.
7. Spacing between magnets shall be at least .700" +/- .002".
8. Magnet shims may be used as long as they are made of non-ferrous material. No shims are allowed either under or on top of the magnets.

No "reversed zapped" magnets

**Pickup Shoes and springs**

1. Pick up shoes and springs shall be solid copper and manufactured by Aurora, Model Motoring, American Line, BSRT (model 504 only) Slot Tech or Wizzard. Dr. Oogan springs are legal. 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. 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.
5. Pick up shoe travel may only be adjusted by 1) bending the front "window" portion of the shoe that hooks to the front of the chassis, 2) bending the rear hook which attaches to the chassis' copper hardware, 3) bending the hangers on the chassis into which the rear hook of the shoe connects or 4) adding heat shrinkable tubing to the top of the front window.
6. Shims may be used between the pickup shoe spring and chassis.



**ECHORR Super Stock T-Jet RULES (continued)**

## 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.
- 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)
  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. Spacers may be used on the rear axle both inside and outside the chassis.
  9. The front and rear axle diameter must not exceed .065
  10. All on market weighted Front Ends are legal, i.e. ZomminMotorsports, RTHO, Wizzard and BRP. All new front ends must be sent to ECHORR for approval at least 60 days before the Challenge date.
  11. No mixing and matching of front end parts from different manufacturers. This does not apply to tires and o-rings.

No "one of "parts allowed on the cars.

\*\*\*At least one car from each Team Box will be teched regardless of finishing order.

A Final Rule:

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

T-Jet races are run on 20 volts +/- .25 volts



## MegaG Indy Class Rules

NOTE: The following rules are designed to keep racing in our club competitive and affordable. **If it does not say you can do it, don't assume you can.** If there is a rule that is unclear, bring it up for discussion with the club and we will clarify the rule or take care of editing the rule as needed.

- 1) Cars eligible to compete in this class include the AFX Mega G Indy Cars.
- 2) The cars must be completely stock including chassis, armatures, axles, rims, front tires, gears, and magnets.  
**No alterations are allowed unless specified in this set of rules.**
- 3) Any slip on silicone tires may be used for rear tires. The rims, axle, and crown gear must remain stock.
- 4) The armature must be stock\* and may be trued. Spacers may be added to the armature shaft.
- 5) The rear axle may be shimmed for better gear mesh.
- 6) Bodies must be 100% stock. Bodies must start races with all wings in tact. If a wing is lost during a race the car may finish the race but will not be allowed to start a new race before repairs are made.
- 7) MegaG races will be run at 18.5 volts +/- .25 volts.

*\*No MegaG hot stock motors are allowed.*

