

*Dan*  
P R O V I S I O N S



**Southern California TAMIYA MINI 4WD  
2019 General Competition Rules**

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## **1. FOREWARD**

Dxn Provisions Mini 4WD events exist for the growth and development of Tamiya Mini 4WD racing. The following rules and regulations have been created to promote and maintain good sportsmanship, equal opportunity and fair play. Many different types of racing classes exist in order to cater to all levels of racers. If you have any trouble understanding any of the rules, feel free to reach out to us.

## 2. Tamiya Mini 4WD Official Rules

### PARTS

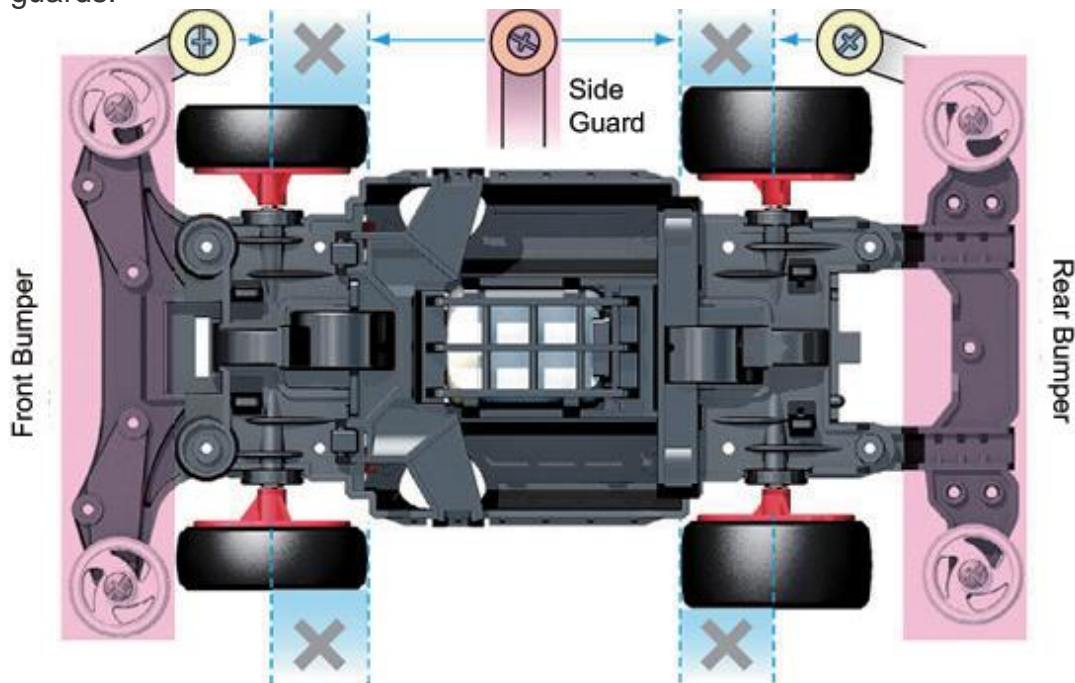
Official Tamiya Mini 4WD, R/C Mini 4WD, and Dangun Racer parts ONLY

### BATTERIES

- Rechargeable batteries OK (1.2v-1.5v NiMH or NiCad)
- 1.5v Dry Cell Alkaline batteries
- No Lithium Dry Cell or Lithium Polymer batteries allowed
- NO charging of Alkaline batteries (putting alkaline cells in a NiCad/NiMH charger)






### BUMPER & CHASSIS SETUP

- Parts which extend around the outside of the wheels to completely frame the chassis are not allowed.
- Parts attached to the front bumper cannot extend past the line of the front axle.
- Parts attached to the rear bumper cannot extend past the line of the rear axle.
- Parts attached to the side guards must remain within the lines shown: (back edge of Front Tire & front edge of Rear Tire)
- Chassis: Extension parts which are attached to the chassis itself are subject to the same zone restrictions as similar parts attached to the bumpers or side guards.



- There are no rules for parts which pass above or within the outside edges of the tires.
- There are no rules for mounting rollers, etc. to the body as long as they are above the level of the wheel axles. If they extend below this line, they will be subject to the same limits as parts which are attached to side guards.

## WEIGHT & DIMENSIONS

Width	Length	Height	Ground Clearance	Weight
				
Under 105mm including all attached parts	Under 165mm including all attached parts	Under 70mm including wing	Over 1mm clearance from flat surface.	Over 90g weight w/Motor & Batteries

- Setting gauge cannot contact brake pads or any other parts of the car

## ROLLERS

- No limit to number of rollers (Tuned & Open Classes)
- O-ring rollers are required to have o-rings in place.
- Stylized rollers OK (rollers cut for design, anodized, and/or dyed)

## TIRES & WHEELS

Tire Diameter: Must be between 22mm and 35mm in diameter

Tire Width: Must be between 8mm and 26mm of tire material per wheel

- NO modifying the properties of the tire material
- NO additives, adhesives, lubricants, or tire dressing allowed on tire surface
- Glue / adhesive to secure tire to wheel OK (any class)
- Any adhesive used to secure tire to wheel must be dry before set on track

## GEARING & DRIVETRAIN

- Must be 4WD
- Must be installed according to set gear ratio (Appendix A)
- Must be original type of gear to chassis. (Example FM-A uses the orange crown gear, cannot use pink or carbon crown gears.)

## TECH INSPECTION

Tech Inspection Officials have the final say on what does or does not pass inspection. Tech Inspection Officials will always do their best to work with racers to correct any found issues, and ultimately it is the racer's responsibility to make sure their Mini 4WD machine matches the rules.

### 3A. Box Stock

Box Stock Class is meant as an entry-level class for beginners. It combines basic kit building skills with a bit of luck, depending on the track layout. The intention is for racers to build the Stock Kit using only the parts that are included in the 0kit. No trimming or modifying of any parts is allowed except what is necessary to complete the car as it looks on the Box Cover. Not all parts are required to be used.

#### Box Stock Class Parts Rules

<p><b><u>Kit:</u></b></p> <ul style="list-style-type: none"> <li>• Any Kit</li> <li>• No modification of chassis allowed</li> <li>• Kit can only be assembled with parts that are included in the box.</li> <li>• Plastic Bushings only, no bearings</li> </ul>	<p><b><u>Batteries:</u></b> Alkalines only</p> <ul style="list-style-type: none"> <li>• 1.5V Alkaline Batteries Only</li> <li>• NO charging Alkaline Batteries</li> <li>• Any brand of Alkaline Batteries OK</li> </ul>
<p><b><u>Body:</u></b></p> <ul style="list-style-type: none"> <li>• Stock Kit body only</li> <li>• Racers may choose to not install all body parts</li> <li>• Application of at least two decals are required</li> </ul>	<p><b><u>Motor:</u></b> Stock Motor</p> <ul style="list-style-type: none"> <li>• Stock Motor (White End Bell)</li> <li>• NO tuning of the stock motor allowed</li> </ul>
<p><b><u>Hardware:</u></b></p> <ul style="list-style-type: none"> <li>• ONLY hardware that came with the Stock Kit may be used</li> </ul>	<p><b><u>Gears:</u></b></p> <ul style="list-style-type: none"> <li>• MUST use gears that came with the Stock Kit</li> <li>• No shimming allowed (washers, spacers, etc)</li> <li>• No cutting, sanding, or modification of gears</li> </ul>

- ❖ Starter Kit, Evo Kit and other Kits featuring hop-up items are not allowed
- ❖ GT Animal Kits OK if motor is changed to Stock Motor

**Note:**

<p>Greasing Roller screws OK Paint is Optional</p>	<p>Greasing Gears OK MUST install two decals at minimum</p>
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### 3B. MA Spec

MA Spec Class is meant as a bridge between Box Stock and Tuned Class with a bit of a twist; Spec Motor Rules. With the addition of the Spec motor rules, MA Spec Class requires each racer to focus on tuning other portions of the car in order to excel above the rest; brakes, stays, gearbox & rollers. The intention is to give intermediate racers an affordable platform to tune, learn, and grow.

#### MA Spec Class Parts Rules

<p><b><u>Chassis:</u></b> MA Only</p> <ul style="list-style-type: none"> <li>• ABS only (no reinforced chassis)</li> <li>• No Cutting of chassis</li> <li>• Drilling out original screw holes OK</li> <li>• Plastic Bushings only, no bearings</li> </ul>	<p><b><u>Batteries:</u></b> Fujitsu Alkalines only</p> <ul style="list-style-type: none"> <li>• Limit 1 pack of 4 per race-day</li> <li>• Race day batteries must be signed by admin</li> </ul>
<p><b><u>Body:</u></b> DCR-02</p> <ul style="list-style-type: none"> <li>• MA style body catch required</li> <li>• Application of at least two decals are required</li> </ul>	<p><b><u>Motor:</u></b> Light Dash</p> <ul style="list-style-type: none"> <li>• Spec Motor Rules in Section 2</li> </ul>
<p><b><u>Wheels:</u></b></p> <ul style="list-style-type: none"> <li>• Low Profile Medium diameter only</li> <li>• Any material OK</li> <li>• Piercing recommended</li> </ul>	<p><b><u>Gears:</u></b></p> <ul style="list-style-type: none"> <li>• Any ratio in accordance with Tamiya rules</li> <li>• No bearings inside gears; Bushings OK</li> <li>• No shimming allowed (washers, tape, etc)</li> <li>• No cutting, sanding, or modification of gears</li> <li>• No fluorine shafts</li> </ul>
<p><b><u>Stays:</u></b></p> <ul style="list-style-type: none"> <li>• 3 Max</li> <li>• No restriction on style or placement</li> <li>• FRP <u>only</u></li> <li>• No cutting allowed (countersinking OK)</li> <li>• MA side stays recommended</li> <li>• MA side stays <u>do not</u> count against Max Limit</li> <li>• No AR side stays</li> </ul>	<p><b><u>Hardware:</u></b></p> <ul style="list-style-type: none"> <li>• Any Tamiya hardware</li> <li>• Countersunk screws required in accordance with DXN ruleset</li> <li>• Locknuts and/or Plastic Balls required for damper screw posts</li> <li>• Hardened screws recommended for front rollers</li> </ul>
<p><b><u>Mass Dampers:</u></b></p> <ul style="list-style-type: none"> <li>• 2 dampers minimum</li> <li>• Any off-the-shelf mass dampers OK</li> <li>• No regulation on placement</li> <li>• Screw-post mount only</li> <li>• No “hammer dampers” (P/N 15478, 95387)</li> <li>• No body dampers</li> </ul>	<p><b><u>Front Under Guard:</u></b></p> <ul style="list-style-type: none"> <li>• 3-piece plastic set required</li> <li>• P/N 95461, 15405, 95215, 95287, or 95470</li> <li>• Must always run all 3 pieces</li> </ul>
<p><b><u>Tires:</u></b></p> <ul style="list-style-type: none"> <li>• Any compound OK</li> <li>• No offset tires</li> <li>• No tire dressing or shaving</li> <li>• No “truing”, shaving, or sanding of tires</li> <li>• Cleaning OK</li> </ul>	<p><b><u>Axles:</u></b></p> <ul style="list-style-type: none"> <li>• 60mm and 72mm allowed</li> <li>• No hollow shafts</li> </ul>
<p><b><u>Stabilizers:</u></b></p> <ul style="list-style-type: none"> <li>• Off-the-shelf stabilizers OK</li> <li>• Unmodified crown gears OK</li> <li>• No rollers as stabilizers</li> <li>• No modified wheels as stabilizers</li> </ul>	<p><b><u>Rollers:</u></b></p> <ul style="list-style-type: none"> <li>• 6 Max</li> <li>• Any plastic rollers (no aluminum rollers)</li> <li>• No bearings allowed</li> <li>• No lube on rollers or roller screws</li> </ul>
<p><b><u>Spacers:</u></b></p> <ul style="list-style-type: none"> <li>• Plastic and Aluminum OK</li> </ul>	<p><b><u>Brake:</u></b></p> <ul style="list-style-type: none"> <li>• No restriction on amount, type, or placement</li> </ul>

❖ Rubber Tubing or Plastic Balls **MUST** be used to cover any protruding screw thread

## Spec Motor Rules

### Spec Motor Basics:

- Spec Motors will be provided by Dxn on race day
- Spec Motors will already be broken-in to help level the playing field
- All Spec Motors will be kept by Tech Inspection between race days
- No personal modification, break-in, lubrication, or processing of Spec Motors allowed <sup>1</sup>

### Spec Motor Procedures:

During race days, Spec Motors will be given to racers when they submit their car for Tech Inspection pre-race

- All motors are numbered
- Motor selection is random; a die will be rolled to determine your motor selection.
- Once the Spec Motor has been installed, the gear cover will be sealed with a special sticker to prevent tampering with the motor and gearbox
- ❖ *If sticker seal is broken or removed, that racer is ineligible to participate until Tech Inspection signs off on the car again.*
- ❖ *All installations of Spec Motors must be performed in front of Tech, no exceptions.*

<sup>1</sup> Any racer caught breaking this rule will be subject to disqualification from the race season or a two race ban. Race fees are ineligible for refunds.



### 3C. Tuned Class

Tuned Class provides a race classification that allows younger racers to compete toe to toe with older, more seasoned racers. The spirit of Tuned Class is to provide a more level playing field between intermediate racers and advanced racers. If you choose to race in Tuned Class, please keep in mind this “Spirit of Tuned Class.” In other words, if a younger racer (16 years old or younger) can’t do what you’re doing to your car, it’s not in the “Spirit of Tuned Class.” Race officials have final say as on what modifications are in the Spirit of Tuned Class.

#### Tuned Class Parts Rules

<p><b><u>Chassis:</u></b></p> <ul style="list-style-type: none"> <li>• Any chassis</li> <li>• No Cutting of chassis <u>whatsoever</u></li> <li>• No drilling of chassis</li> </ul>	<p><b><u>Motor:</u></b></p> <ul style="list-style-type: none"> <li>• Torque, Rev, or Atomic Tuned motors only</li> <li>• NO Zen Tuned</li> </ul>
<p><b><u>Body:</u></b></p> <ul style="list-style-type: none"> <li>• Any body type, plastic or polycarbonate</li> <li>• Minor trimming to accommodate weights OK</li> <li>• NO major trimming or modification allowed</li> <li>• Application of at least two decals are required</li> </ul>	<p><b><u>Mass Dampers:</u></b></p> <ul style="list-style-type: none"> <li>• NO body dampers</li> <li>• NO hanging dampers</li> <li>• NO setups where weights will hit car body</li> <li>• NO mass dampers as rollers</li> </ul>
<p><b><u>Wheels:</u></b></p> <ul style="list-style-type: none"> <li>• Any diameter</li> <li>• Any material</li> <li>• Piercing OK</li> <li>• No modifying or cutting wheels</li> </ul>	<p><b><u>Gears:</u></b></p> <ul style="list-style-type: none"> <li>• Bearings OK in <u>original</u> sized bearing holes</li> <li>• No “floating” gears</li> <li>• No cutting, sanding, or modification of gears</li> <li>• Fluorine shafts OK</li> </ul>
<p><b><u>Stays:</u></b></p> <ul style="list-style-type: none"> <li>• Plastic, FRP, Carbon, and Aluminum OK</li> <li>• No cutting, trimming, sanding, or modifying</li> <li>• Countersinking OK</li> </ul>	<p><b><u>Hardware:</u></b></p> <ul style="list-style-type: none"> <li>• Any Tamiya hardware</li> <li>• Screws in front and rear of the chassis are <u>required</u> to be countersunk, or hidden</li> </ul>
<p><b><u>Tires:</u></b></p> <ul style="list-style-type: none"> <li>• Any compound OK</li> <li>• No tire shaving</li> <li>• No “truing”, shaving, or sanding of tires</li> <li>• No tire dressing or additives</li> <li>• Cleaning OK</li> </ul>	<p><b><u>Stabilizers:</u></b></p> <ul style="list-style-type: none"> <li>• Off-the-shelf stabilizers OK</li> <li>• Unmodified crown gears OK</li> <li>• Rollers as stabilizers OK</li> <li>• NO wheels as stabilizers</li> <li>• NO weights are stabilizers</li> </ul>

- ❖ Rubber Tubing or Plastic Balls **MUST** be used to cover any protruding screw threads
- ❖ Rubber Tubing may not be used for anything other than covering excess threads
- ❖ Car Catcher material not allowed
- ❖ Polycarbonate material only to be used as body and body parts, not for other uses.

### 3D. Open Class

Open Class is meant as a platform for unlimited tuning and creativity. Open Class competitors are encouraged to use their technical and creative skills to master the everchanging obstacles found in various Mini 4WD track layouts. Rules for this class change as they would in Japan, the concept behind following Tamiya Japan's rules is that if you can build your car to those specs in the United States, your car will be qualified to race in Japan as well. Go fast, don't crash!

#### Open Class Parts Rules

<b><u>Tires:</u></b> <ul style="list-style-type: none"><li>• Any tire compound OK</li><li>• Modifying tire shape OK</li><li>• Modifying tire size OK</li></ul>	<b><u>Stays:</u></b> <ul style="list-style-type: none"><li>• Any material OK</li><li>• Can be modified and trimmed</li><li>• Must show some of original Tamiya markings</li></ul>
<b><u>Body:</u></b> <ul style="list-style-type: none"><li>• Any body type, plastic or polycarbonate</li><li>• Must have at least 15% of body in tact</li><li>• Must be painted (or completely covered with decals)</li><li>• Application of at least two decals are required</li></ul>	<b><u>Gears:</u></b> <ul style="list-style-type: none"><li>• Removing material for weight OK</li><li>• Removing material for fitting bearings OK</li></ul>

<b><u>Motors:</u></b> Rev Tuned, Torque Tuned, Atomic Tuned, Light Dash, Sprint Dash, Power Dash, Mach Dash, Hyper Dash <ul style="list-style-type: none"><li>• NO ZEN Tuned, Jet Dash, Plasma Dash, or Ultra Dash</li></ul>
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- ❖ Rubber Tubing or Plastic Balls MUST be used to cover any protruding screw threads

### 3E. High Speed Races (Tuned & Open Class)

High Speed races (Tuned & Open) take place on relatively flat courses without jumps or major obstacles allowing racers to tune their machines for maximum speed! Tuned High Speed and Open High Speed follow roughly the same rules as their technical counterparts, with a few special rules listed below.

***NOTE: All High Speed cars, Open & Tuned, must still comply with Tamiya Mini 4WD Official Rules***

#### Tuned Class High Speed Specialty Rules

<b><u>Body:</u></b> <ul style="list-style-type: none"><li>• Can be trimmed more aggressively than normal Tuned Class (within reason)</li><li>• Must retain 80% of body material</li><li>• Does not need to use original clip</li><li>• Must be painted (or completely covered with decals)</li><li>• Application of at least two decals are required</li></ul>	<b><u>Stays:</u></b> <ul style="list-style-type: none"><li>• Plastic, FRP, Carbon, and Aluminum OK</li><li>• No cutting, trimming, sanding, or modifying, including plastic parts</li><li>• Countersinking OK</li></ul>
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#### Open Class High Speed Parts Rules

<b><u>Tires:</u></b> <ul style="list-style-type: none"><li>• May use trimmed tires</li><li>• Must have at least 8mm width of tire material on each wheel</li><li>• No requirement for contact patch size</li></ul>	<b><u>Stays:</u></b> <ul style="list-style-type: none"><li>• Same as normal Open Class</li></ul>
<b><u>Body:</u></b> <ul style="list-style-type: none"><li>• Any body type, plastic or polycarbonate</li><li>• Must have at least 15% of body in tact</li><li>• Must be painted (or completely covered with decals)</li><li>• Application of at least two decals are required</li></ul>	<b><u>Gears:</u></b> <ul style="list-style-type: none"><li>• Same as normal Open Class</li></ul>

#### Tuned and Open Class Motor Rules

<b><u>Motors:</u></b> Tuned Motors ONLY <ul style="list-style-type: none"><li>• Rev Tuned, Torque Tuned, &amp; Atomic Tuned only</li><li>• NO ZEN Tuned</li></ul>
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- ❖ Rubber Tubing or Plastic Balls MUST be used to cover any protruding screw threads

# 4A. Mini 4WD Gear Ratios



## Mini 4WD Grade-Up Parts Matching List

(Current as of: Sep. 2017)

### Gear Ratios

Gear Ratio	Counter Gear	Spur Gear	FM-A	Type 2	Type 3	Type 4	Zero	FM	Type 5	Super-I	Super-II	Super FM	Super TZ	Super X	Super XX	VS	Super TZ-X	AR	MS	MA		
3.5 : 1	G17 Light Blue	G18 Yellow	●								●		●	●	●	●	●	●			※5	
3.7 : 1	G24 Green	G18 Yellow	●								●		●	●	●	●	●	●			※6	
4 : 1	G14 Black	G11 Light Brown	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●			※7	
4.2 : 1	G9 Red		●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●			※7
5 : 1	G10 Blue	G6 Light Green	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●				
3.5 : 1	Item 15132 Special Ratio Gearing: Mustard Yellow						●		●	●												
3.5 : 1	Item 15187 Lightweight Special Ratio Gearing: Light Gray												●	●			●					
6.4 : 1 ※4	G5 Gray	G3 Green			●																	
11.2 : 1	G4 Yellow					●																
5 : 1 ※4	G8 Purple	G6 Light Green			●																	
8.75 : 1	G7 Pink					●																
4 : 1 ※4	G12 Mustard Yellow	G11 Light Brown			●																※8	
Crown Gears (G2 = Orange; G13 = Pink)			G2	G2	※3	G2	G13	G2	G2	G13	G13	G2	G13	G2	G2	G13	G13	G13	—	—	※12	
Gear Ratio	Counter Gear	Spur Gear																				
3.5 : 1	G21 Light Green	G22 Pink																		●	●	※9
3.7 : 1	G23 Yellow																				●	●
4 : 1	G19 Blue	G20 Orange																		●	●	※11
8T Pinion Gear			※2									※1							※2	※1	※1	

- ※1 Permitted gears: White, Purple, Brass, Black (kit-included) pinion gears; pinion gears from Item 15438 Reinforced Gears w/Easy Locking Gear Cover or Item 15453 Carbon Reinforced 8T Pinion Gear (6pcs.).
- ※2 Permitted gears: Black (kit-included), Brass pinion gears; pinion gears from Item 15438 Reinforced Gears w/Easy Locking Gear Cover or Item 15453 Carbon Reinforced 8T Pinion Gear (6pcs.).
- ※3 Use G2 Orange crown gear at front and G1 Light Blue crown gear at rear.
- ※4 Use 12T pinion gear.
- ※5 These gears are also paired in Item 15432 Super Speed Gear Set (for Super XX & Super-II Chassis).
- ※6 Item 15434 High Speed EX Counter Gear Set (3.7:1)
- ※7 These gears are also paired in Item 15236 High Speed Counter Gear Set.
- ※8 These gears are also paired in Item 15053 Competition Gear Set for Type 3 Chassis.
- ※9 These gears are also paired in Item 15349 Mini 4WD PRO Super Speed Gear Set (for MS Chassis).
- ※10 These gears are also paired in Item 15429 Mini 4WD PRO High Speed EX Gear Set (for MS Chassis/Gear Ratio 3.7:1).
- ※11 These gears are also paired in Item 15355 Mini 4WD PRO High Speed Gear Set (for MS Chassis/Gear Ratio 4:1).
- ※12 Crown gears in Item 15438 Reinforced Gears w/Easy Locking Gear Cover are identical to G13.