SR27

1:27 Scale Ready-To-Run 2WD Electric On Road Car





1:27 Scale Ready-To-Run 2WD Electric On Road Car Manual

WeAreAE

CHAMPIONS by DESIGN

AssociatedElectrics.com

TEAM ASSOCIATED

:: Introduction

Thank you for purchasing this Team Associated product. This assembly manual contains instructions and tips for building and maintaining your new vehicle. Please take a moment to read through the manual and familiarize yourself with the steps. We are continually changing and improving our designs; therefore, actual parts may appear slightly different than the illustrations. New parts will be noted on supplementary sheets located in the appropriate parts bags.
Check each bag for these sheets before you start to build.

:: SR27 RTR Features

- Set-up for balanced handling performance out of the box
- Accepts rechargeable AAA size batteries
- Adjustable front and rear body mounts when removed allows for hard body mounting
- High-detail wheels with specific offsets for a balance of looks and performance
- Integrated electronic speed control and receiver with gyro
- Adjustable track width: Wide and Narrow front-end pieces included
- Adjustable wheelbase: Mid- and Rear-Motor pieces included
- Adjustable gear ratio options included
- Gear differential included
- Stand-alone servo with servo saver
- Metric hardware used throughout
- Tools included in box (1.3mm and 1.5mm L-wrenches, 4.0mm/5.5mm nut driver)
- Designed to accept many aftermarket parts for this category
- Metal ball bearings included
- Licensed highly detailed polycarbonate bodies

:: Additional

Combo Items and features:
#27204 Reedy 114SN NiMH AA/AAA Charger

Features:
- Suitable for AA/AAA NiMH/NiCd rechargeable batteries
- Charges 1-4 batteries simultaneously
- LED charge status indicators
- Alkaline battery detection
- Compact size

Specifications:
Input: DC 5V, 2A
Output: DC 1.2V 1000mA +/- 15%
Battery Type: 1.2V AA-AAA NiMH/NiCd Rechargeable
Charge Rate: 1.0A x4
Dimensions (mm): 94 x 63 x 34
Weight (g): 65
Usage environment: 0-35°C, humidity ≤95%
Storage environment: 0-60°C, humidity ≤85%

#27398 Reedy AAA 800mAh 1.2V NiMH Rechargeable Batteries (x4)
Long Lasting – High Power Reedy's AAA Rechargeable NiMH batteries feature high capacity and power output for your favorite RC model. They also offer excellent performance in digital cameras, portable electronics, or any device that uses AAA batteries and can benefit from extended battery life and/or maximum power output.

:: Hardware - 1:1 Scale View

Button Head (bhcs)


1.5x4mm (21824)


2x5mm (21824)


2x10mm (21807)


2x12mm (21824)

Shims and Washers


3.1x5x0.2mm (21808)


2x6x2.5mm (21808)

Nuts (lock/plain)


Wheel Nut (21809)

Ball Bearings


2x6x2.5mm (21808)


3x6x2.5mm (21825)

:: Notes

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:: Notes

This symbol indicates a special note or instruction in the manual.

This symbol indicates the number of the same part that is required.

This symbol indicates the order within a step to assemble parts.

This symbol indicates there are optional FT parts available

This symbol indicates a Racers Tip.



This symbol indicates where Thread Lock Adhesive should be applied. *not included



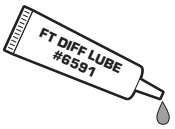
This symbol indicates where Diff Fluid should be applied.



This symbol indicates where Shock Fluid should be applied.



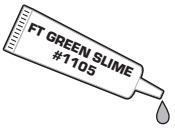
This symbol indicates where FT Silicone Grease should be applied. *not included



This symbol indicates where FT Diff Lube should be applied. *not included



This symbol indicates where Black Grease should be applied.



This symbol indicates where Green Slime can be applied. *not included



There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardware with the correct drawing until you find the exact size. Each part in the foldout has a number assigned to it for ordering replacement parts.

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:: Radio/Receiver/ESC Manual

Features

- Steering trim adjustment
- Steering dual-rate (D/R) adjustment
- Steering end-point (EPA) adjustment
- Integrated gyro
- LED on/off indicators
- Low battery warning
- Fail-safe protection
- Low-voltage protection
- Ergonomic pistol-grip and steering wheel

Specifications

Radio	GT16
Configuration	Pistol grip
Frequency Band	2.4 GHz
Channels	4
Input Voltage	AA x4
Protocol	FHSS

Battery Installation and Replacement

1) Open the battery box cover to access the batteries.
2) Install four (4) alkaline or rechargeable AA size batteries into the battery box holder.
3) Place the battery box cover back into position making sure it is secure.
4) Turn the power ON. If the power indicator LED fails to light, check the batteries for insufficient contact or incorrect polarity.
5) Replace batteries when the LED Power Indicator flashes.

Check:

a) Use only new alkaline cells of the same brand and model.
b) Make certain that the contacts in the battery box holder stay clean by using a pencil eraser to gently remove any corrosion or dirt that may accumulate on them. Clean the tabs each time new batteries are installed.
c) If using rechargeable batteries, be sure to follow the battery manufacturer's charging instructions.

Caution:

a) Do not attempt to charge alkaline batteries. They may EXPLODE!
b) Always be sure the batteries are installed in the correct polarity order. If the batteries are installed incorrectly, damage to the radio may result.
c) Do not continue to operate your radio when the LED Power Indicator begins to flash. Continue only after new batteries are installed.
d) When the radio is not in use for more than one week, remove the batteries from the radio.

Operation

Caution: Always power ON your transmitter before the ESC and power OFF the ESC before your transmitter.
Caution: Maintain a minimum distance of 40cm (15 ¾") between the transmitter and vehicle when operating.

Using Caution While Operating

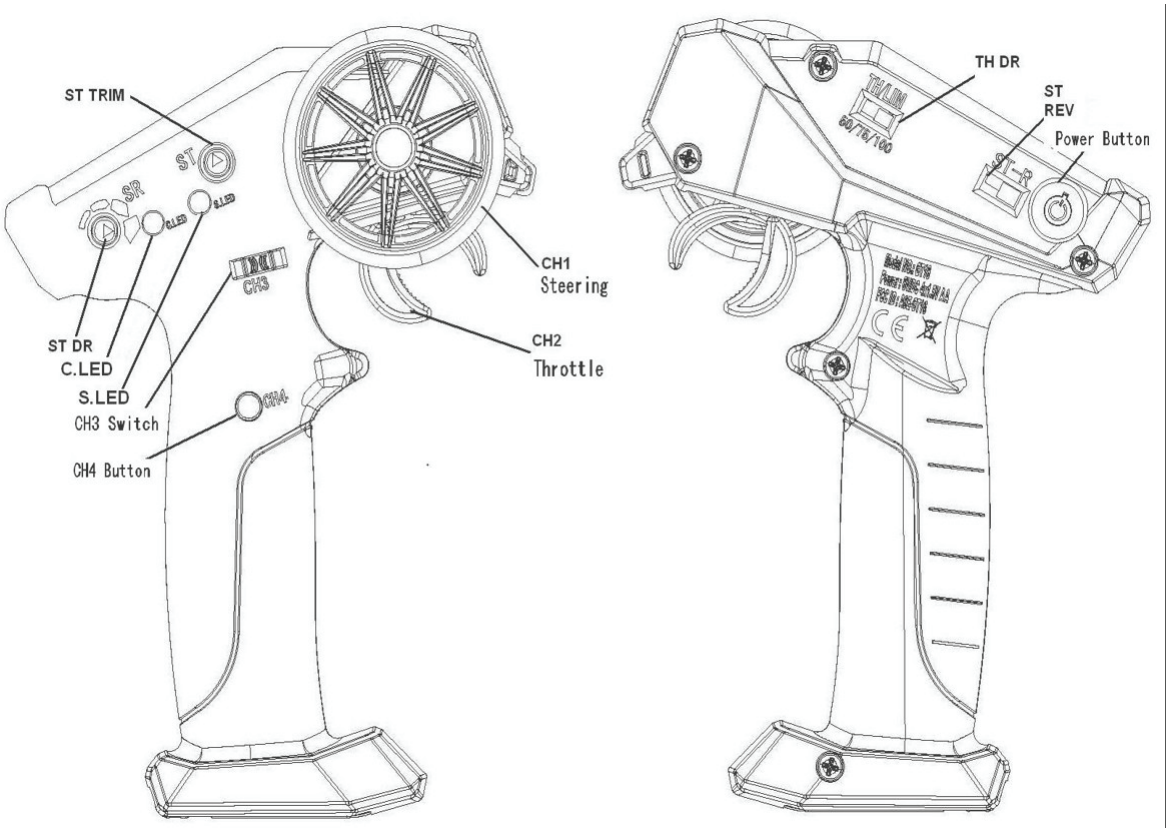
- Do not operate the model or use the radio in the rain, in the presence of lightning, or at night.
- Do not operate the model or use the radio if you have been drinking alcohol or are under the influence of any other substance that will affect your skills.
- Always confirm that the radio has sufficient battery power before operating.
- Keep out of reach of children.
- Do not store the radio in temperatures below -10° C (14° F) or above 40° C (104° F) or in humid, dusty, or in high-vibration environments. Keep the radio away from direct sunlight.
- To prevent corrosion, remove the batteries from the radio if it will be stored for more than one week.

Binding the Transmitter and Vehicle

1) Power on the vehicle, then press and release the button [image] to enter binding mode. The LED will start flashing rapidly.
2) Press and hold the radio's power button until the radio's red LED flashes rapidly.
3) When both the transmitter and receiver LEDs stop flashing, the binding process is complete.

Note: Radio systems installed in RTRs have already been bound. Only when installing a new transmitter or ESC is the above process necessary.

:: Radio/Receiver/ESC Manual cont.



Functions

Steering Dual-Rate (ST DR)
Use to adjust the maximum travel range of the vehicle's steering system. Turn the knob clockwise to increase travel range (more steering) or counterclockwise to reduce travel range (less steering).

Throttle Limit (TH DR)
Use to adjust the maximum full throttle limit of either 50%, 75%, or 100% to fine tune power output based on driver skill level and track conditions.

Steering Trim (ST TRIM)
Turn the knob clockwise or counterclockwise to adjust the vehicle's steering system to that the vehicle drives straight when the steering wheel is at the neutral position.

Steering Reverse (ST REV)
Reverse the direction of the vehicle's steering system. Turning the radio wheel right and left should turn the vehicle's wheels in that same direction. The steering direction will be pre-set from the factory and should not need adjustment.

3CH Function (CH3 Switch)
The three-position CH3 switch is used to control the on/off function of LED lights. When CH3 is switched to the left or middle position, the lights are powered off. When CH3 is switched to the right position, the lights are powered on. When powered on, the lights function as follows:

- When the vehicle moves forward, the headlights illuminate
- When the vehicle reverses, the taillights illuminate
- When the vehicle comes to a stop, the headlights and taillights synchronize to flash once every second

4CH Function (CH4 Button)
The fourth channel is not used.

:: Radio/Receiver/ESC Manual cont.

EPA (End Point Adjustment)

EPA allows the left and right steering endpoint to be set independently from each other. The endpoint settings will be pre-set from the factory but can be changed for fine-tuning purposes. Use the following procedure to set the endpoints:

1. Turn the steering wheel to the right while pushing the throttle trigger to the maximum brake/reverse position.
2. While holding these positions, press the power button to turn on the radio. The red LED (S.LED) will flash rapidly. Return both the steering wheel and the throttle trigger to the neutral position.
3. Turn the steering wheel completely to the left and while holding it in this position, turn the Steering Dual-Rate (ST DR) knob until the steering travel is at the maximum desired point.
4. Release the steering wheel to neutral (middle position), and then turn the ST DR knob clockwise to the maximum setting.
5. Turn the steering wheel completely to the right and while holding it in this position, turn the Steering Dual-Rate (ST DR) knob until the steering travel is at maximum desired point.
6. Release the steering wheel to neutral (middle position), and then turn then ST DR knob clockwise to the maximum setting.
7. Press the power button to turn off the transmitter. Now the vehicle is now ready to use with the update EPA settings.

Restore Factory Settings

Restoring factory parameters will restore the EPA and calibration data to the factory settings. Use the following procedure to restore settings.

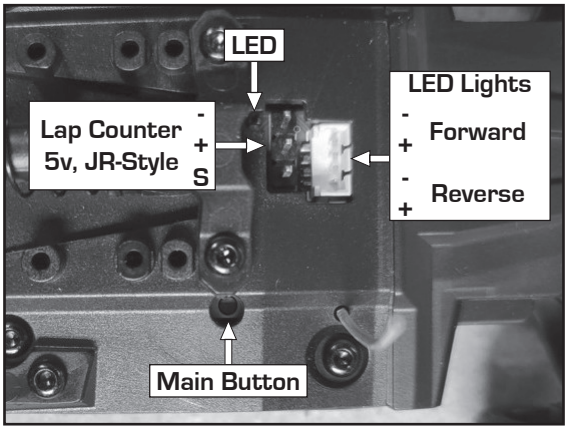
1. Turn the steering wheel to the left while pushing the throttle trigger to the maximum brake/reverse position.
2. While holding these positions, press the power button to turn on the radio, the red LED (S.LED) will flash rapidly four times, then shut off.
3. Return the steering wheel and throttle trigger to their neutral positions. The red S.LED will light and signal a successful restoration.

Gyroscope

The internal gyro helps stabilize the car and prevent spins when it is driven on low grip surfaces. When using the car on high grip racing surfaces, disabling the gyro is recommended. From the factory, the Datsun 240Z models come with the gyro enabled while the Nissan Z models come with the gyro disabled. To turn the gyro on or off, first power on the car and radio, then press and hold the Main Button for 3 seconds. If the LED flashes once, it indicates that the gyro is enabled. If the LED flashes twice, it indicates that the gyro is disabled. After the LED flash sequence, release the button. The car is now ready to drive with the new setting.

Gyroscope Calibration

Press and hold the Main Button while powering the vehicle on. The LED light will flash three times, followed by a long pause. The three-flash cycle will repeat indicating that gyro calibration mode is enabled. Place the vehicle on a horizontal surface with it remaining and stationary during this time. When the LED light remains lit, turn the vehicle off and back on. Gyro calibration is complete.



:: Radio/Receiver/ESC Manual cont.

Failsafe Protection
The vehicle is equipped with fail-safe protection. If the vehicle loses connection to the transmitter, motor power will be reduced to zero and the servo will remain in its last position.

Vehicle Low Voltage Protection
When the vehicle's voltage drops below 4.5V for more than 10 seconds, motor power is reduced by 50%.
When the vehicle's voltage drops below 4.0V for more than 5 seconds, motor power is reduced to zero.

Radio Low Battery Voltage Alarm
When the radio battery voltage is greater than 4.5V, the red S.LED will remain solid.
When the radio battery voltage drops below 4.5V, the red S.LED will flash slowly.
When the radio battery voltage drops below 4.0V, the red S.LED will turn off.
Consider changing the radio batteries when the red S.LED begins to flash slowly.

Vehicle LED status
- Solid - The transmitter and receiver are connected.
- Flashes rapidly – The binding process is in progress.
- Flashes twice per second - The transmitter and receiver have lost their connection.
- Flashes once every two seconds – The vehicle's battery voltage is low

Accessory Ports
Lap Counter
The SR27 includes a powered 3-pin 5V port suitable for lap counter connections.

Lights
While not available currently, the 4-pin port is suitable for LED light installation.

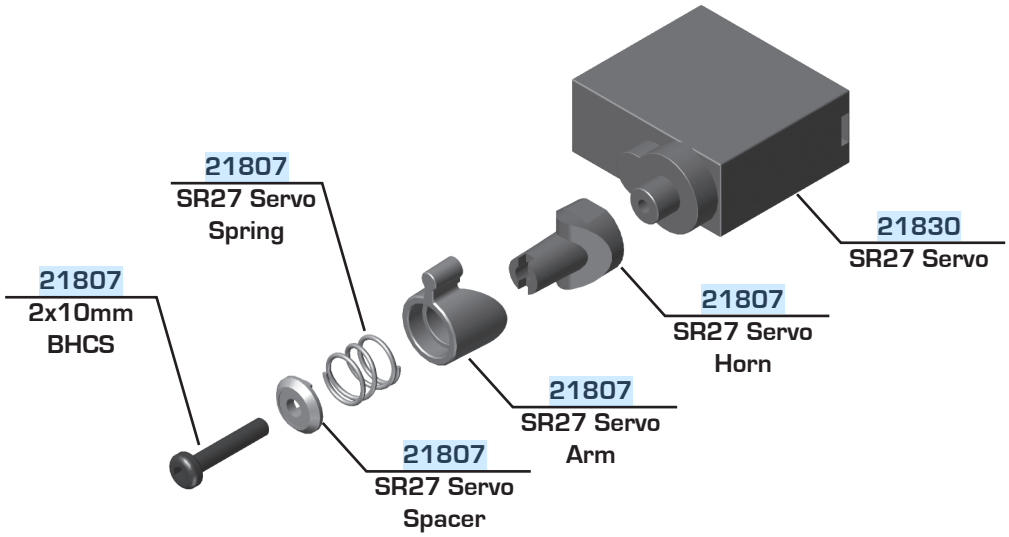
CE

Associated Electrics, Inc. declares that this product complies with the essential requirements and other relevant provisions of the European directive 2014/30/EU.

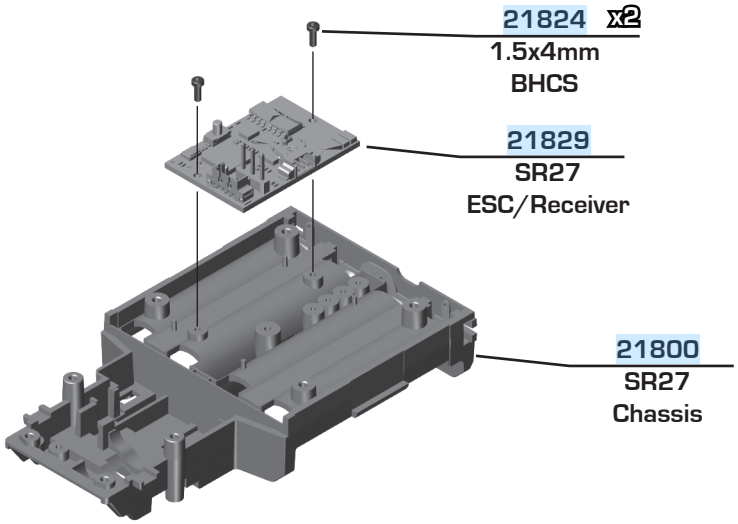


The crossed-out wheeled bin means that within the European Union, this product must be taken to a separate waste collection facility at the product's end of life. Do not dispose of this product as unsorted municipal waste.

:: Electronics Install - Step 1

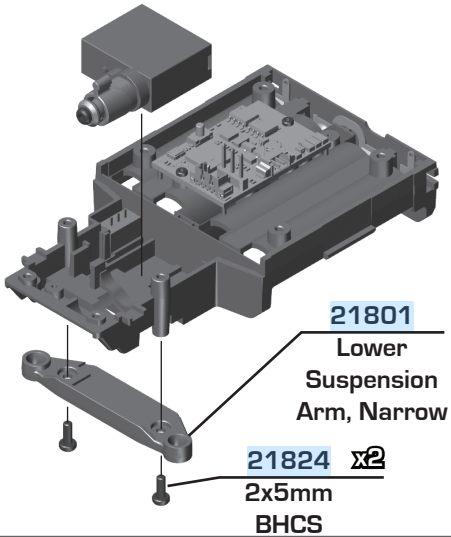


:: Electronics Install - Step 2

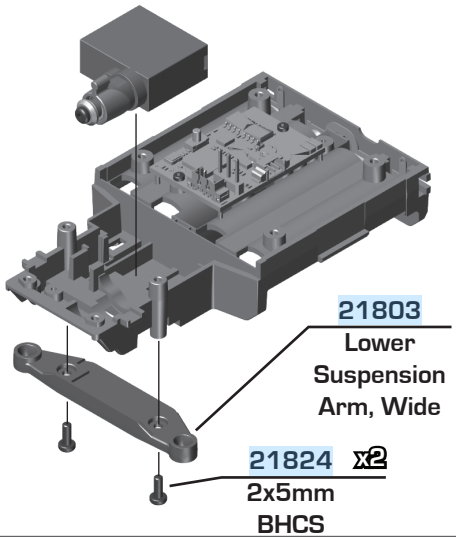


:: Electronics Install - Step 3

NARROW VERSION

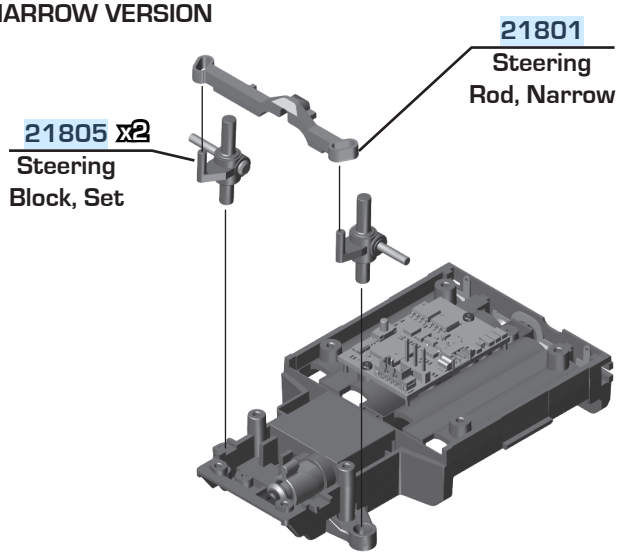


WIDE VERSION

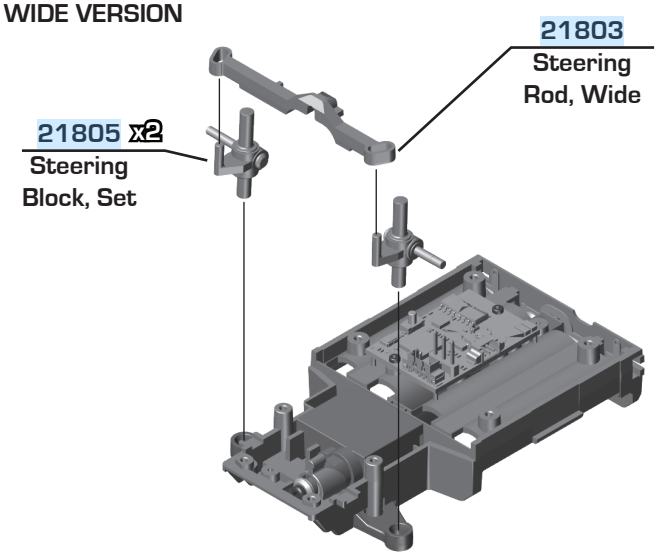


:: Steering Install - Step 1

NARROW VERSION

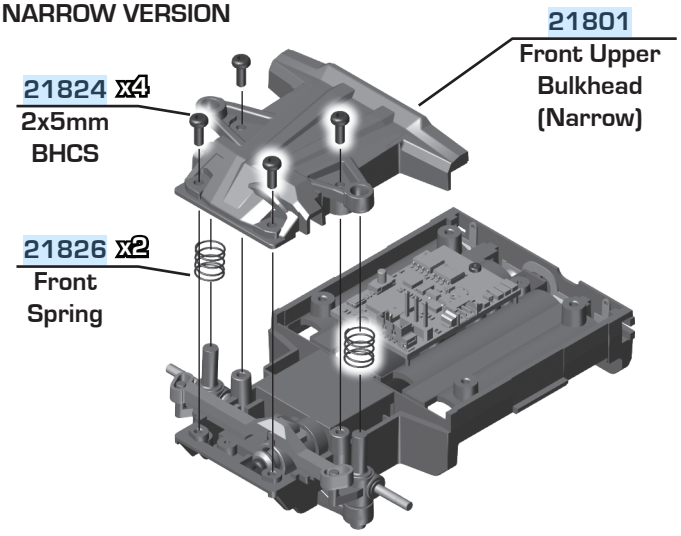


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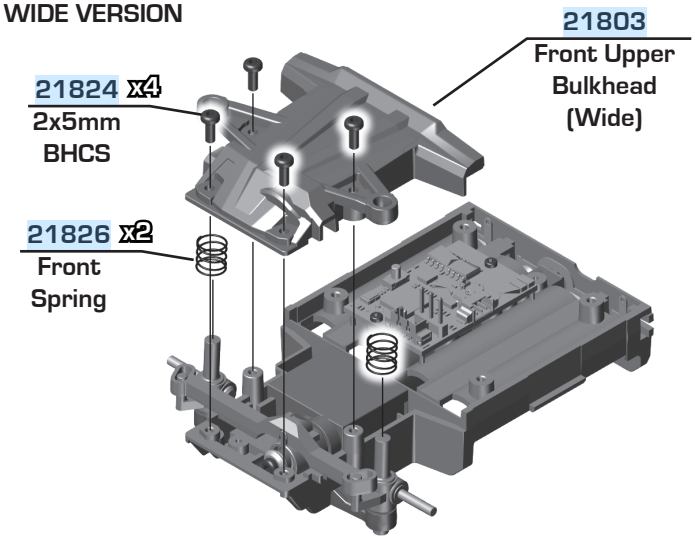


:: Steering Install - Step 2

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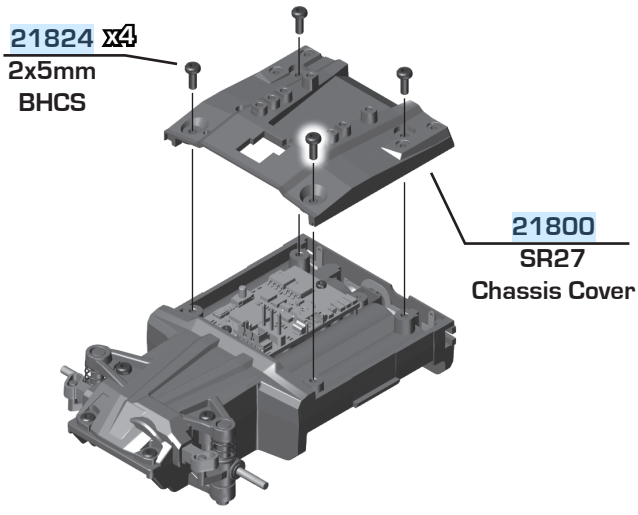


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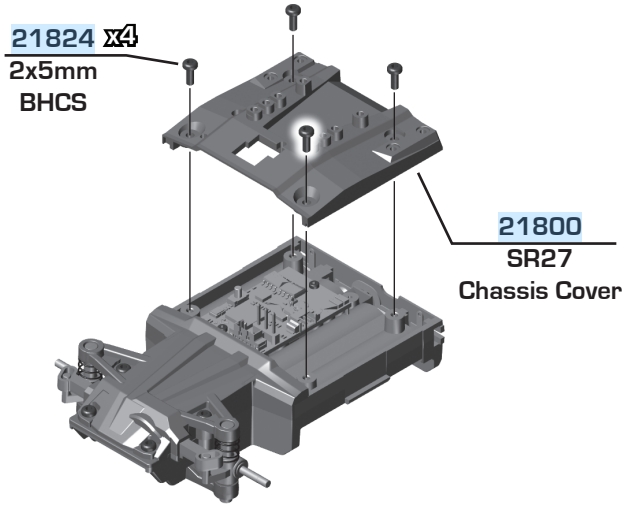


:: Steering Install - Step 3

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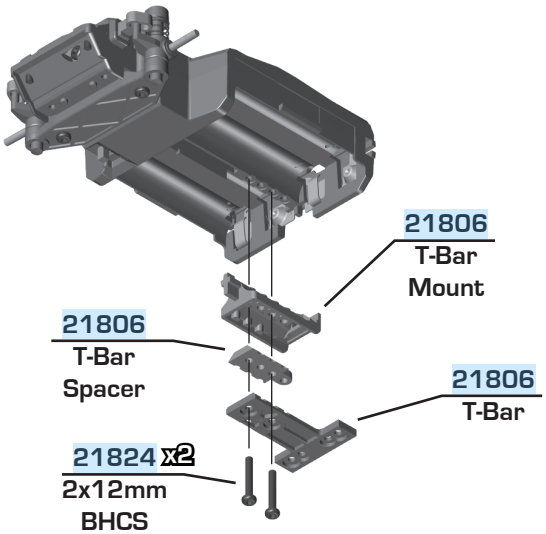


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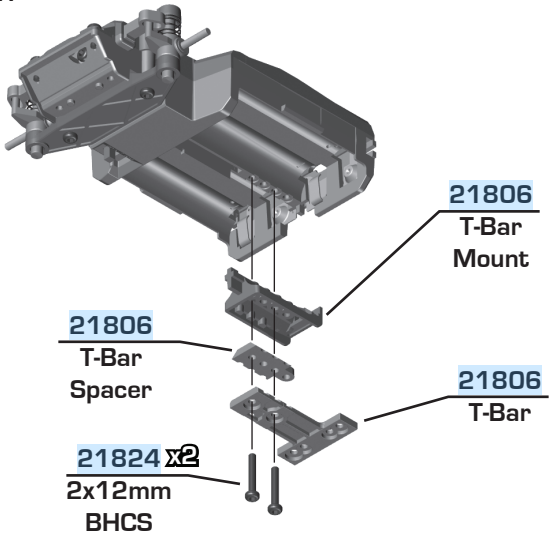


:: Rear End - Step 1

REAR MOTOR



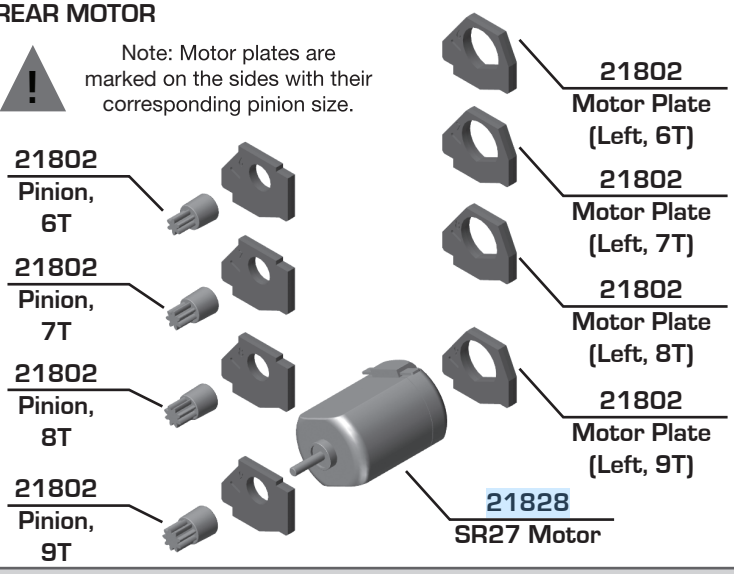
MID MOTOR



:: Rear End - Step 2

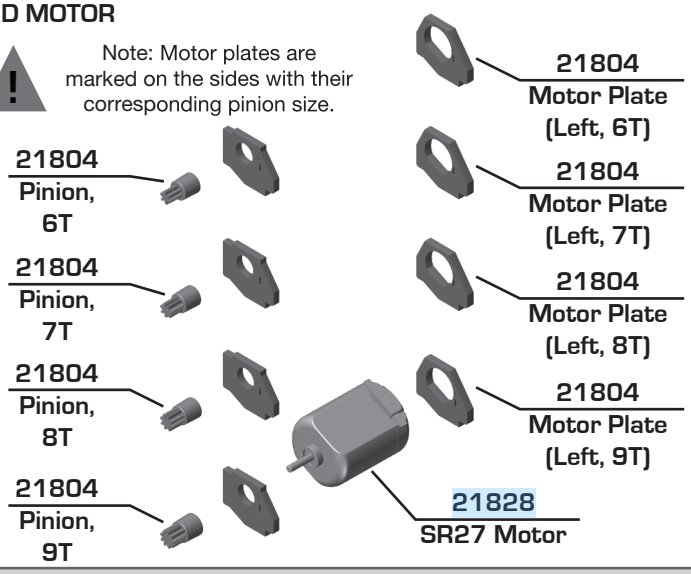
REAR MOTOR

Note: Motor plates are marked on the sides with their corresponding pinion size.



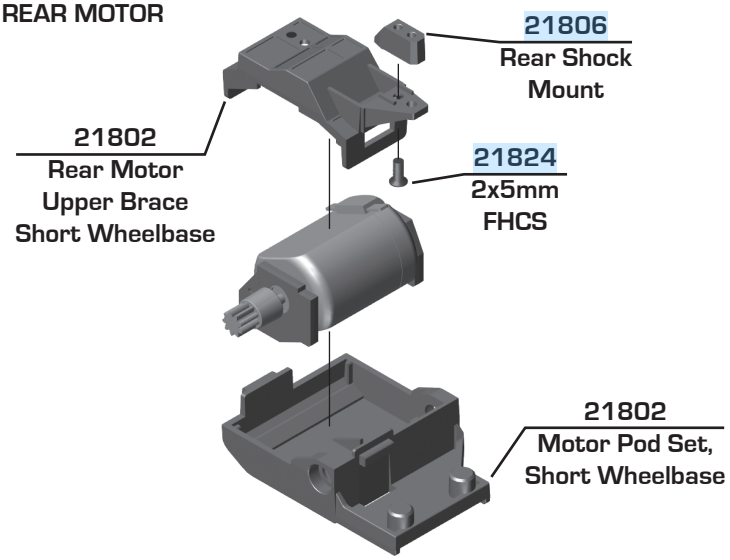
MID MOTOR

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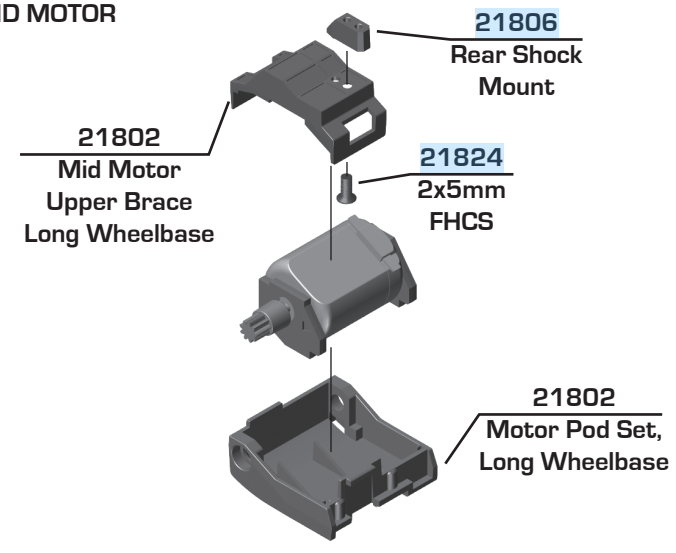


:: Rear End - Step 3

REAR MOTOR

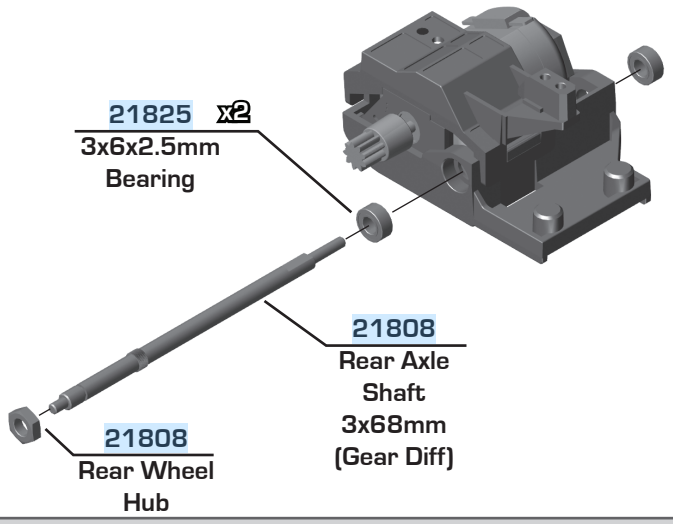


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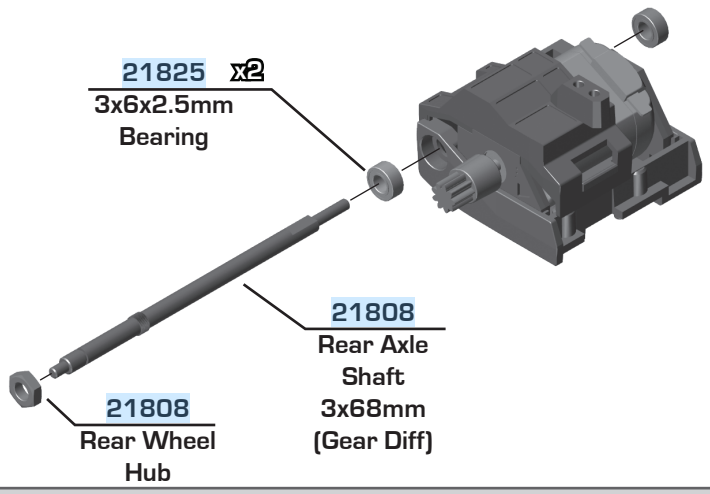


:: Rear End - Step 4

REAR MOTOR

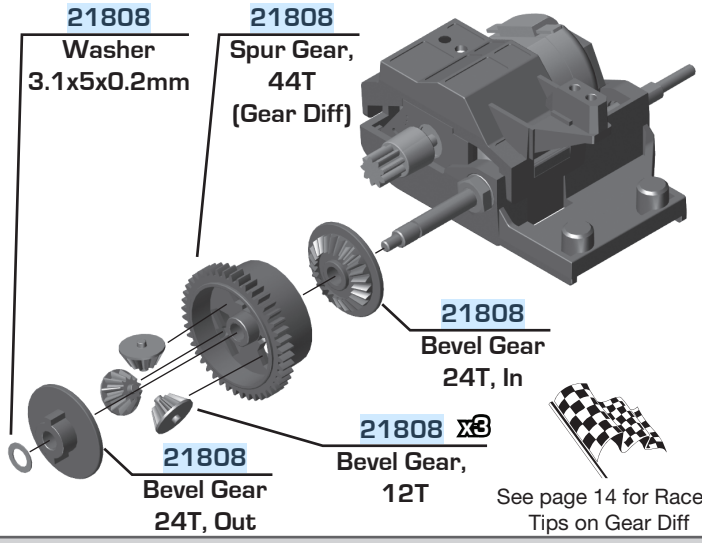


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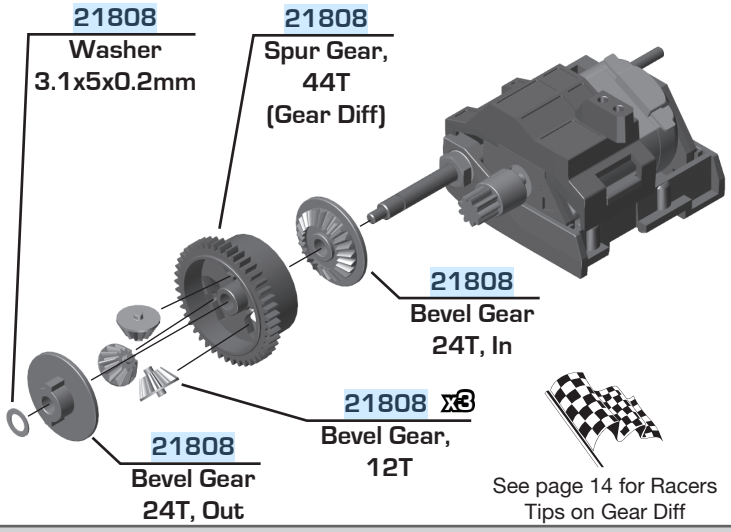
:: Rear End - Step 5

REAR MOTOR



See page 14 for Racers Tips on Gear Diff

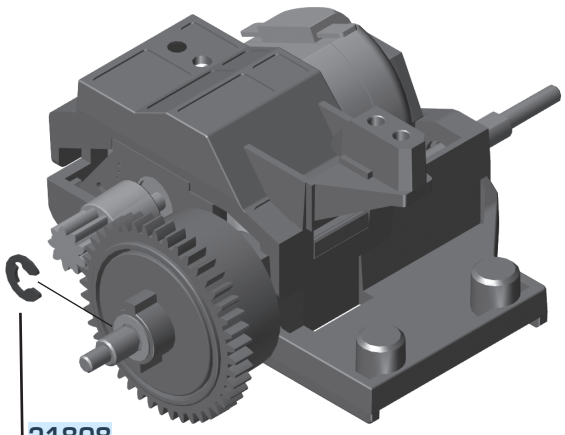
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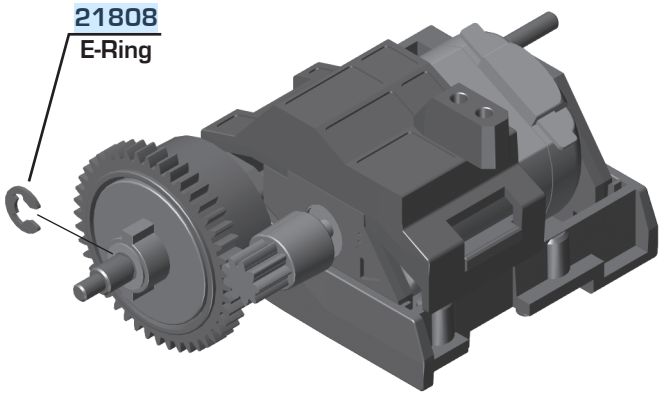
See page 14 for Racers Tips on Gear Diff

:: Rear End - Step 6

REAR MOTOR

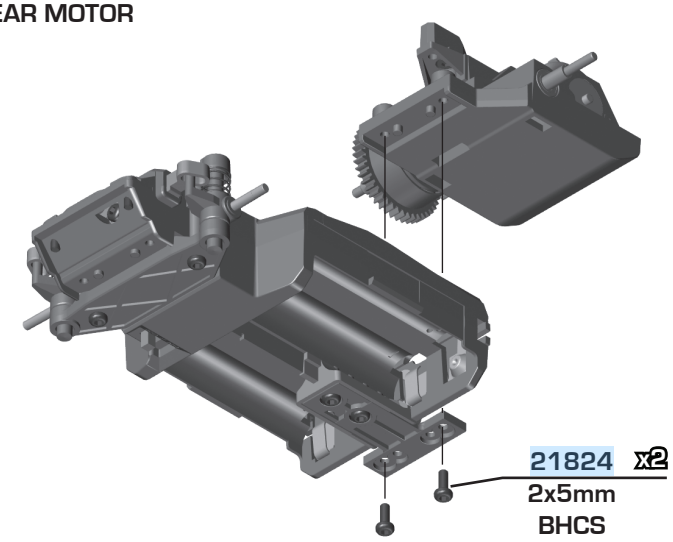


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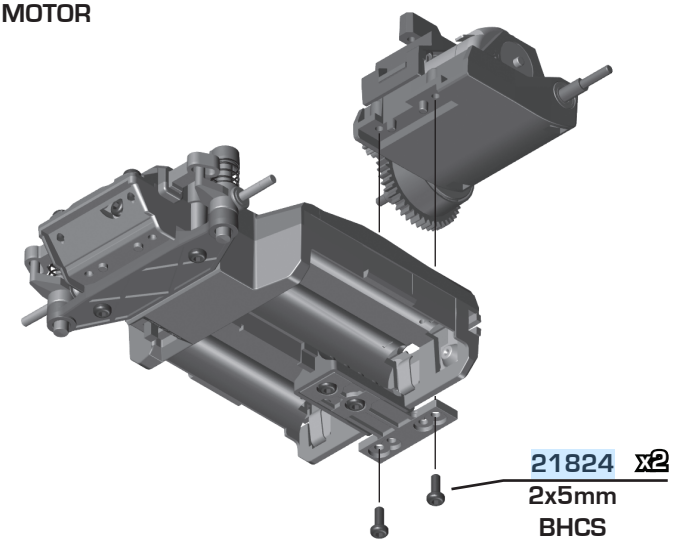


:: Rear End - Step 7

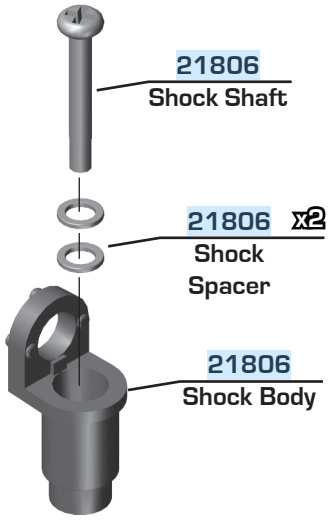
REAR MOTOR

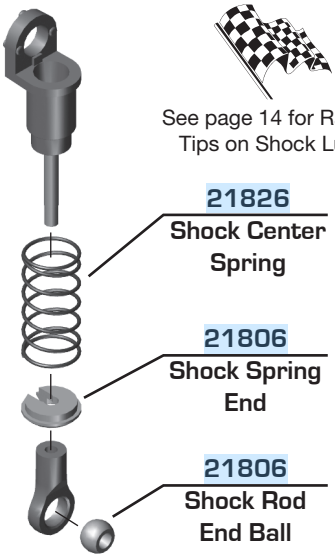


MID MOTOR

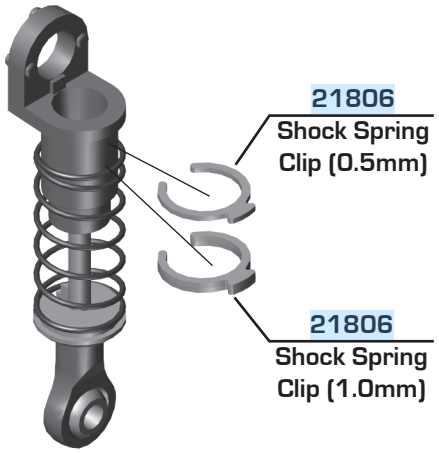


:: Shcok Install - Step 1



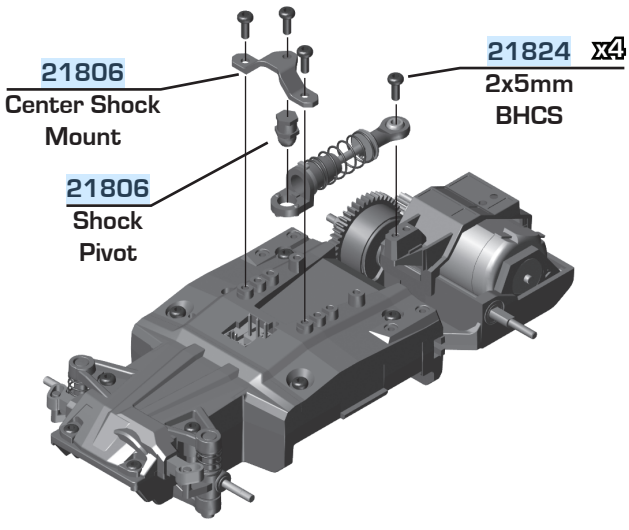


See page 14 for Racers
Tips on Shock Lube

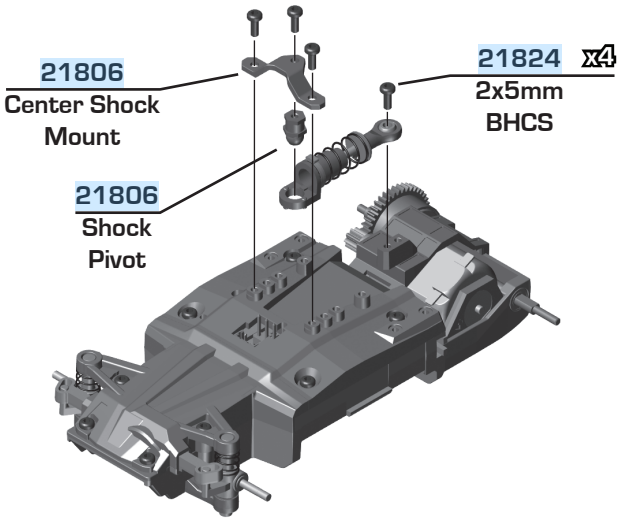


:: Shcok Install - Step 2

REAR MOTOR

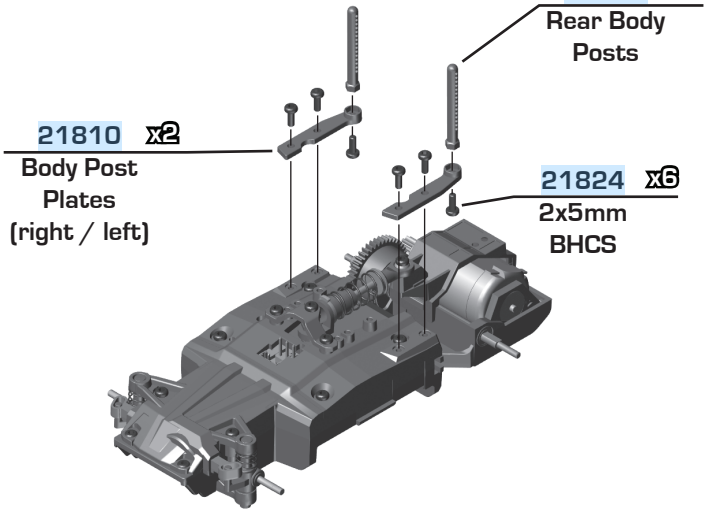


MID MOTOR

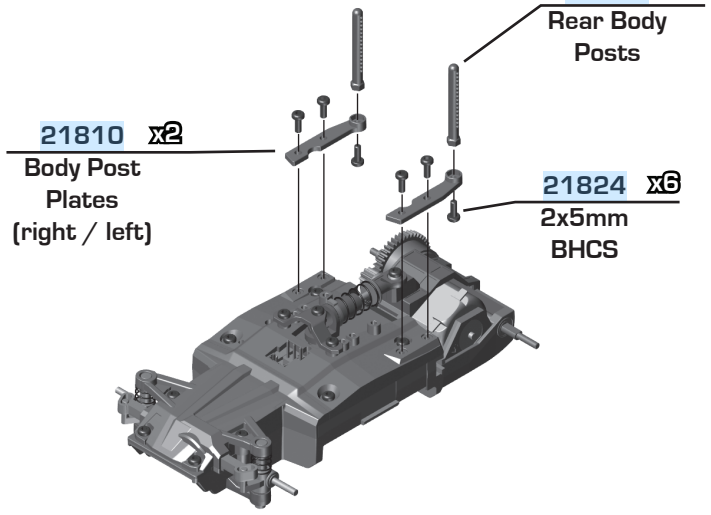


:: Body Mounts Install - Step 1

REAR MOTOR

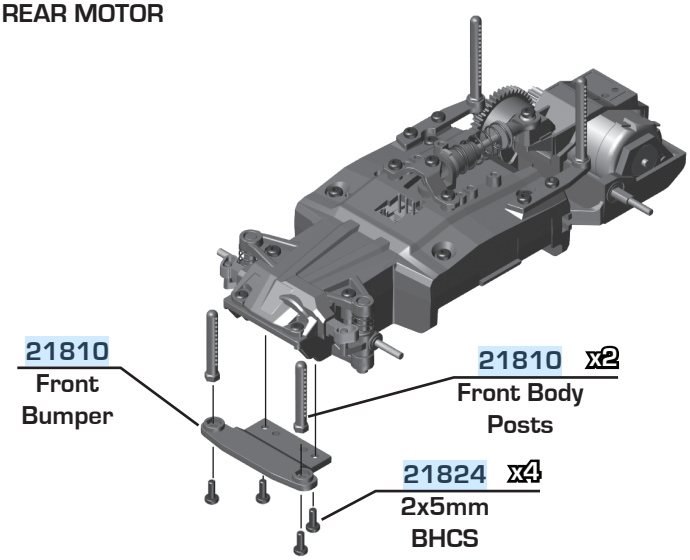


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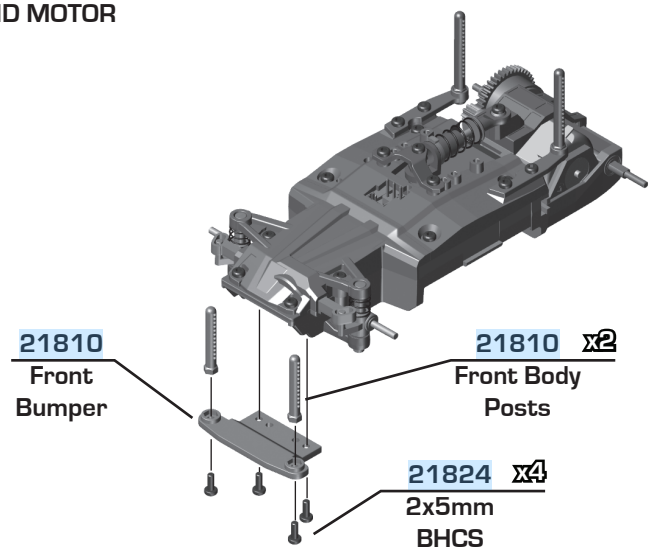


:: Body Mounts Install - Step 2

REAR MOTOR



MID MOTOR



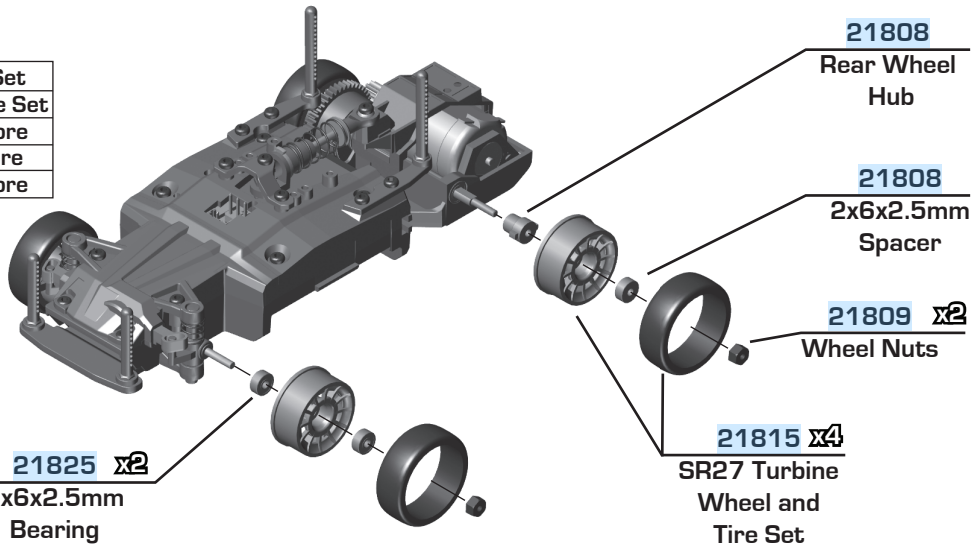
:: Wheel and Tire Install - Step 1

REAR MOTOR

Wheels / Tires

#21815	Turbine Wheel and Tire Set
#21820	12-Spoke Wheel and Tire Set
#21821	Tire Set, 8.5mm - 35 Shore
#21822	Tire Set, 11mm - 20 Shore
#21823	Tire Set, 8.5mm - 20 Shore

See page 14 for Racers Tips on Tires

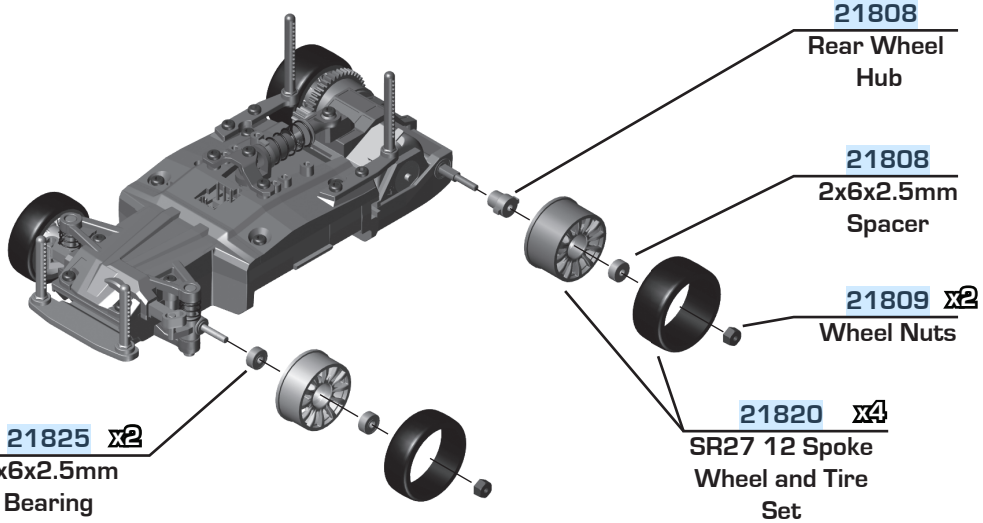


:: Wheel and Tire Install - Step 2

MID MOTOR

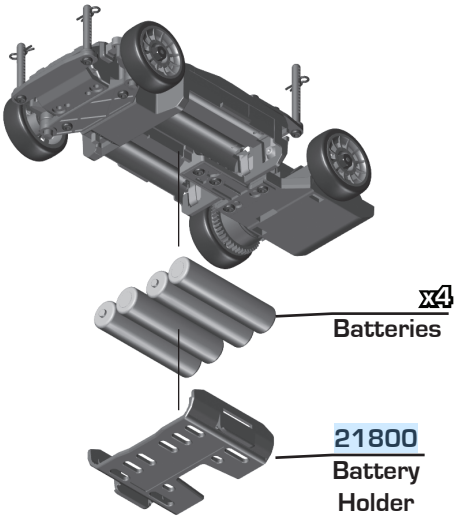
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See page 14 for Racers Tips on Tires

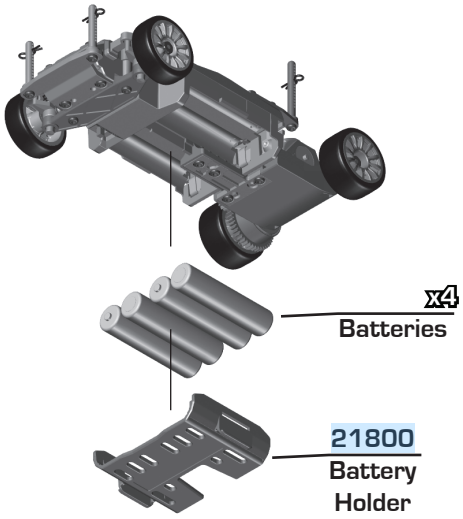


:: Batteries Install - Step 1

REAR MOTOR

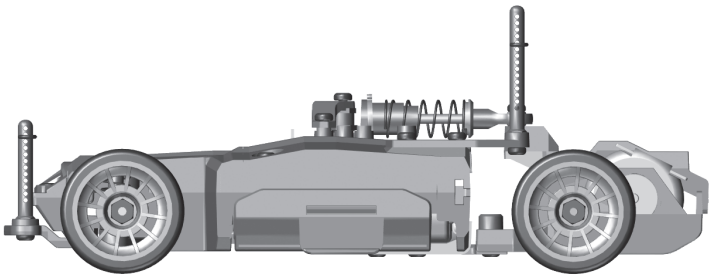


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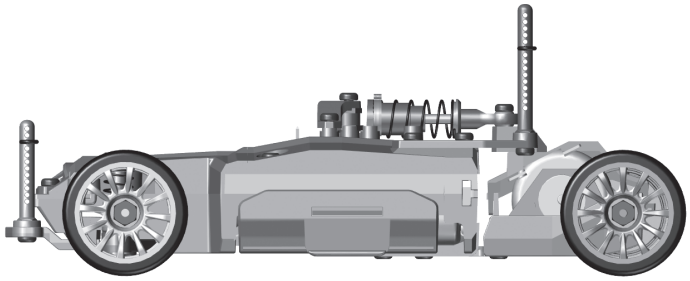


:: SR27 Side View

REAR MOTOR



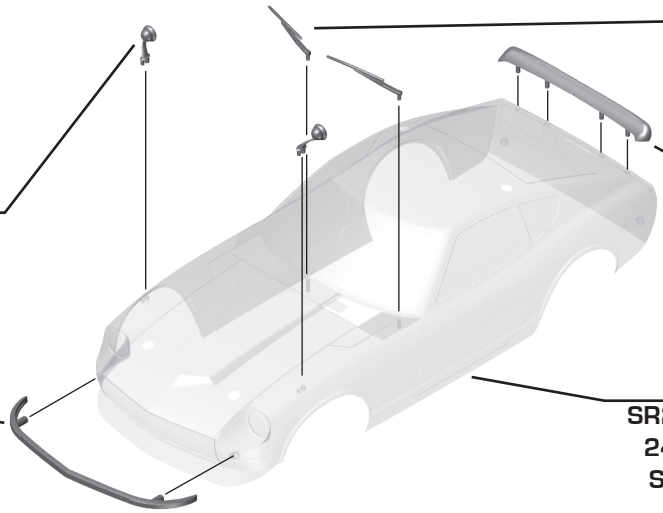
MID MOTOR



:: 240z Body Install - Step 1

REAR MOTOR

Bodies	
#21811	Datsun 240z Body, Green
#21812	Datsun 240z Body, Clear
#21814	Datsun 240z Body, Red
#21833	Datsun 240z Body, White



21813 x2
SR27 Datsun 240z Body Accessories, Wipers

21813 x2
SR27 Datsun 240z Body Accessories, Mirrors

21813
SR27 Datsun 240z Body Accessories, Wing

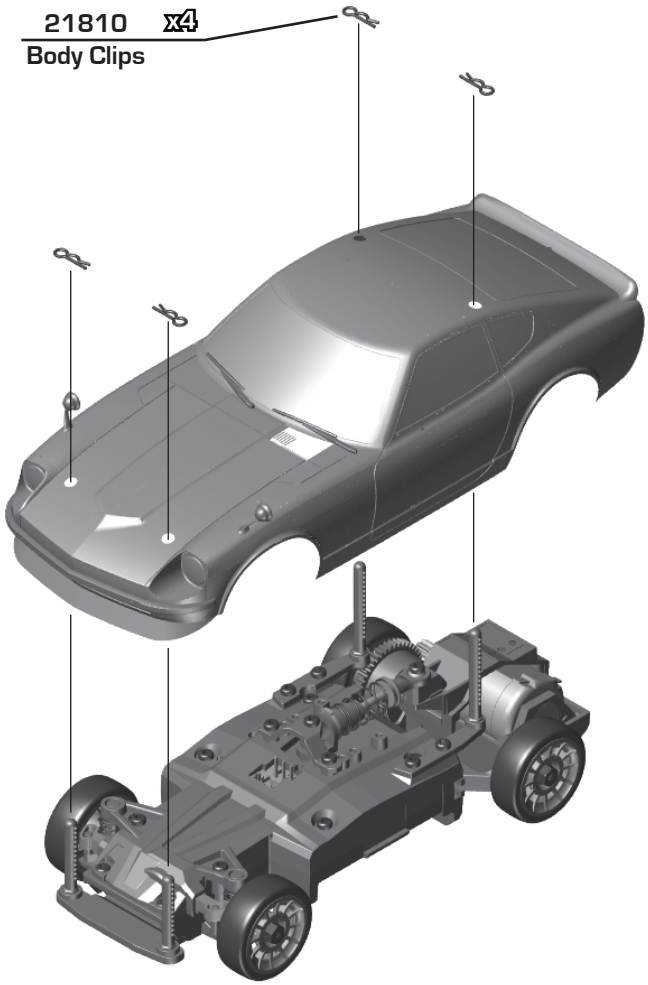
21813
SR27 Datsun 240z Body Accessories, Bumper

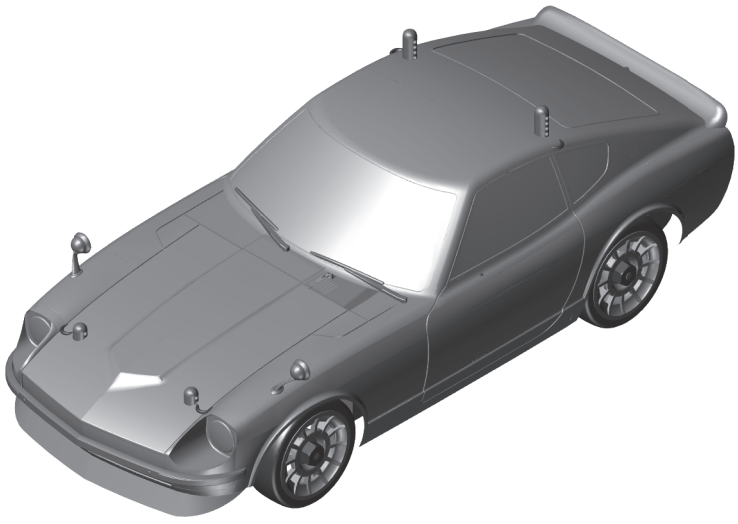
21812
SR27 Datsun 240z Body Set, Clear

:: 240z Body Install - Step 2

REAR MOTOR

21810 x4
Body Clips





:: 400z Body Install - Step 1

MID MOTOR

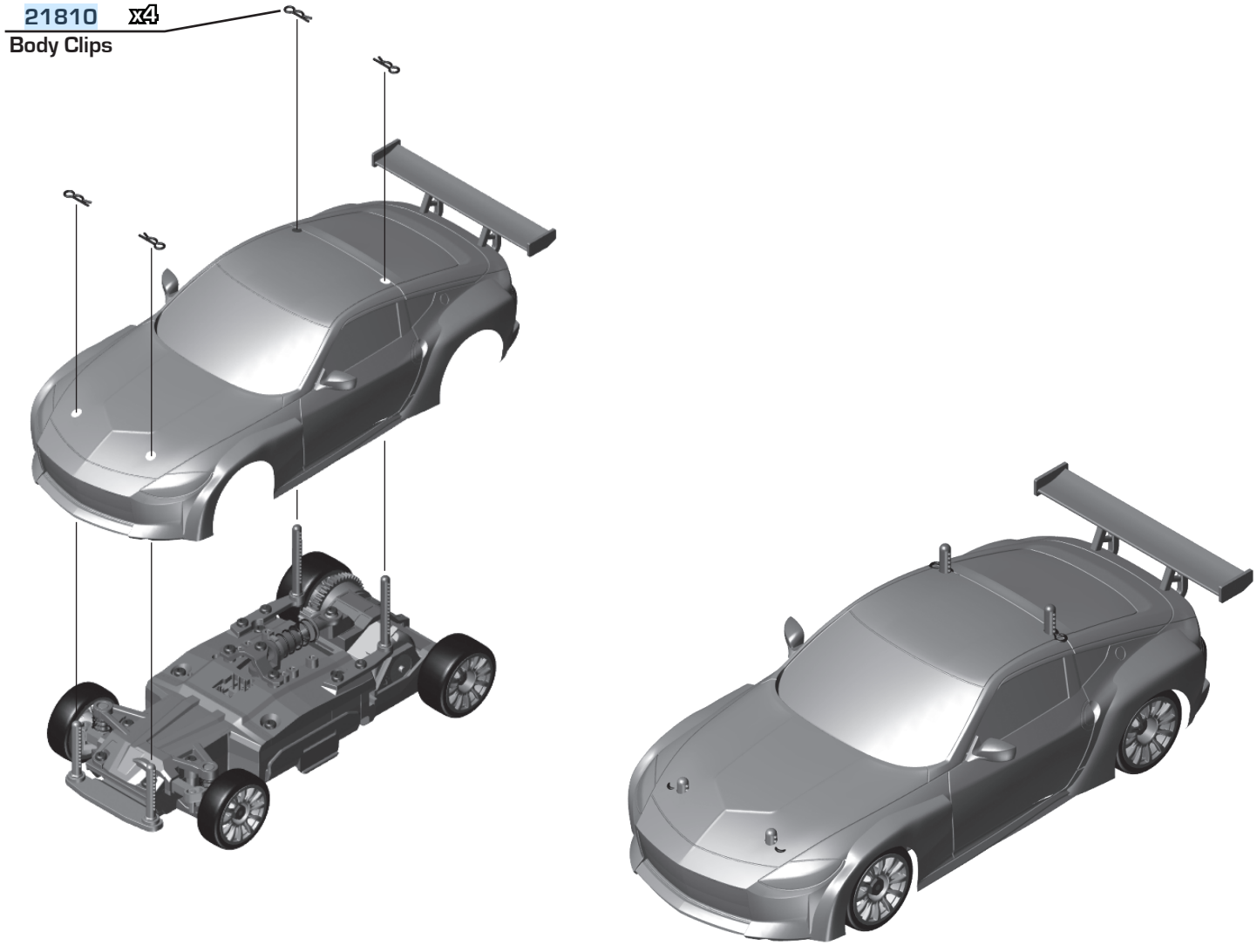
Bodies

#21817	2023 Nissan Z Body, Clear
#21831	2023 Nissan Z Body, Yellow
#21832	2023 Nissan Z Body, Blue



:: 400z Body Install - Step 2

MID MOTOR



:: SR27 Racer Tips

Tires:
- Aftermarket tires recommended for track use
    - o Check with your local track which tires are popular
- Tire tape or gluing the tires to the wheels is suggested for track use

Steering Servo:
- Make sure the steering servo is secured to chassis and can't move. If the servo can move it will result in changing steering trim and the car will not go straight after hitting barriers.
    - o The servo should be secured from factory but may need a drop of hot glue to secure it in place tightly

Gearing:
- There are four pinion gear options for the SR27. Which gearing is used will depend on the size of track and the features it has. Lower tooth count pinions will provide faster acceleration with a lower top speedwhile higher count pinions have a higher top speed and smoother but slower acceleration.
    - o Small Tracks w/ Short Straights: 6T Pinion
    - o Medium Tracks w/ Short Straights: 7T Pinion
    - o Medium Tracks w/ Long Straights: 8T Pinion
    - o Large Tracks w/ Long Straights: 9T Pinion

Shock Limiters:
- There are small plastic washers included with the SR27. These washers can be used to limit the down travel of the center shock resulting in less pod droop. The RTR should come with these already installed and this is the preferred setting for RCP tracks.
    - o More Droop: More stability and better bump handling
    - o Less Droop: Faster weight transfer resulting in more corner speed
    - o Engineering at AE have found that setting the rear pod droop horizontal with the bottom of the main chassis or slightly below is the best for RCP tracks.

Shock Lube:
- It is recommended to use a high viscosity (FT 30K Diff Fluid) for the center friction shock
    - o Simply add oil to the shock shaft and work the shock up and down. Apply more if needed.
    - o This will remove unwanted oscillation that can make the car unpredictable.
- It is also recommended to apply high viscosity silicone fluid (FT 30K Diff Fluid) to the front king pins where they slide through the upper arm.

Diff Lube:
- Applying varying levels of black grease to the gear differential is recommended for improving performance and consistency (Note: aftermarket tires recommended for this step)
    - o Small amount (just wetting the gears) will improve the consistency of the differential action
    - o Larger amounts (packing grease into the diff case) will greatly improve on-power stability and consistency but too much can lead to loss of traction exiting tight corners and locking the rear tires up on full brakes.
    - o Avoid overfilling the diff. Overfilling the diff will make a mess and can leak on to track surface.

Wheel Nuts:
- Be sure not to overtighten the wheel nuts
- Front tires should spin freely with minimal side to side movement
- Rear wheels should spin freely allowing the differential to work properly

Maintenance:
- Clean the car after use with a brush or light application of compressed air
- Look over the car and check that everything is in good working order
- Oil bearings and re-lube items listed above after 45 minutes of use for a consistent feeling car