

# 1:24 Four Wheel Drive EP Truggy

# INSTRUCTION MANUAL



**14+**  
**YEARS**



LENGTH	WIDTH	HEIGHT	WHEELBASE	WHEEL DIA.	WHEEL SPAN	GROUND CLEARANCE	GEAR RATIO
197mm	140mm	62mm	110mm	24mm	48mm	25mm	1:11.47

This data is subject to change without prior notification.

## BATTERY SAFETY INFORMATION

Disconnect and take out the battery pack from the vehicle when not in use. This will prevent damage from a leaking rechargeable battery pack. To prolong battery life, do not enable the vehicle to be used to a standstill resulting in the battery being completely drained. Fully charge the battery pack before each use. Do not leave battery pack uncharged for a long period of time. Store the battery pack in a dry, clean and cool condition.

- This product is not a toy. It is not intended for operators under 14 years of age, unless closely supervised by adults.
- This manual is subject to change without prior notice. The image may vary from the actual product.

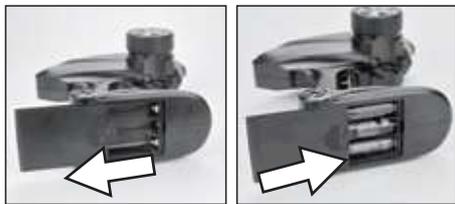
## **Caution**

- 1) Please read and understand the manual before using, assembling, and/or disassembling.
- 2) This product is not a toy, it is a high powered RC model, which is not intended for operators under 14 years of age.
- 3) Children less than 14 years old must not operate this product unless they are closely supervised by an adult.
- 4) Fully charge the battery pack before use. Be sure to disconnect and remove the batteries from both the transmitter and the car when not in use.
- 5) Do not attempt to run the product while low on battery power. Fully charge the battery pack before use. Stop driving immediately when slow running speed is observed. Failure to do such can over drain the pack and cause damage.

## **General Safety Information**

1. This manual is subject to change without prior notification.
2. This product is NOT a toy, and not intended for users under 14 years of age, unless closely supervised by an adult.
3. The specifications and images in the manual may vary from the actual product.
4. Operate this vehicle with due care and be always a good driver which is attentive to others.
5. Under no circumstances SHOULD the user operate the vehicle in crowds of people. Serious injury could result.
6. Never operate the vehicle on public streets or in public areas. This could cause traffic accidents, personal injury, and/or property damage. This vehicle is ONLY be driven on the open track which is for RC cars.
7. Do NOT use this vehicle to chase pets or other animals.
8. The receiver, steering servo and other electronics installed in this vehicle are merely splash water-resistant. Do not immerse this vehicle into water.
9. Regularly checking on the transmitter (radio controller) power is very important. Remove the batteries from the transmitter (radio controller) when not in use. Replace with fresh batteries if necessary. NEVER run this vehicle with low power from the transmitter.
10. When this vehicle becomes stuck, do NOT force on throttle. Failure to do so could cause abrupt damage to the motor and/or the ESC (Electronic Speed Controller). Check and clean the obstacles before running again.
11. Before running this vehicle check if the battery, wiring, and plugs are loose.
12. Be careful not to touch any moving parts when servicing or operating this vehicle.
13. To prevent excessive RPM from damaging the motor, and/or the drive-train components, we suggest reducing the throttle while performing in the air during jumps.
14. Never attempt to re-assemble motor, ESC, and receiver as these have been precisely calibrated at factory.
15. Always apply the factory optional/tooling parts to this vehicle.
16. To upgrade this vehicle requires the user to upgrade the entire radio/driving system (such as motor, ESC, receiver and so forth.) They should be strictly matched with factory components.
17. To run this vehicle, turn on the transmitter (radio controller) first and then the receiver.
18. To stop running this vehicle, turn off the receiver first, and then the transmitter.
19. Straighten the receiver antenna (if it comes with this vehicle) for best receiving performance. Never cut the receiver antenna, otherwise it could lose control of the vehicle.

# 2.4GHz Transmitter Introduction



Slide and remove the battery cover from the transmitter, install three AA size batteries (1.5V,each), and replace the battery cover. Do not reverse the polarities when installing. Always use batteries of same brand and remove batteries when not in use. Make sure battery power is sufficient before use.

## Power Indicators (Red/Green):

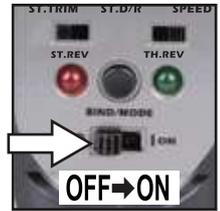
The lights indicate the current status of the transmitter batteries. When both power indicator lights are illuminated, the batteries have sufficient capacity to power the transmitter safely. If the green power indicator light begins to flash, the batteries are losing power and should be replaced soon. If both power indicator lights begin to flash, the batteries have only limited capacity to power the transmitter. In this case, the batteries should be replaced as soon as is safely possible.

**DO NOT USE THE TRANSMITTER WITH LOW BATTERY POWER.**

# Getting Started

## 1) Switch on the Transmitter:

Slide the Power Switch to "ON" position. Make sure the transmitter has enough battery power. Please replace with the new batteries for transmitter if the LED on transmitter blinks slowly. **Do NOT move the trigger and the steering wheel while the transmitter is waiting for binding.**



## 2) Switch on the ESC/Receiver:

Press and hold the Power Switch on ESC/Receiver for 2-3 seconds to turn on the car. It will take a few seconds before LEDs (on Transmitter and the ESC/Receiver) stop blinking and become solid on, which indicates that the car is bound with the transmitter. Binding operation may fail with low battery power. Please stop and charge the battery pack once the car jerks, cogs, or moves slowly. Under the circumstance of flat battery power, the car may have steering but not throttle. In case the car runs harshly or noisily, stop to check if there is something clogged in the drive train.



Press and hold for 2-3 seconds to switch on

## 3) Checking the steering performance by turning the steering wheel:

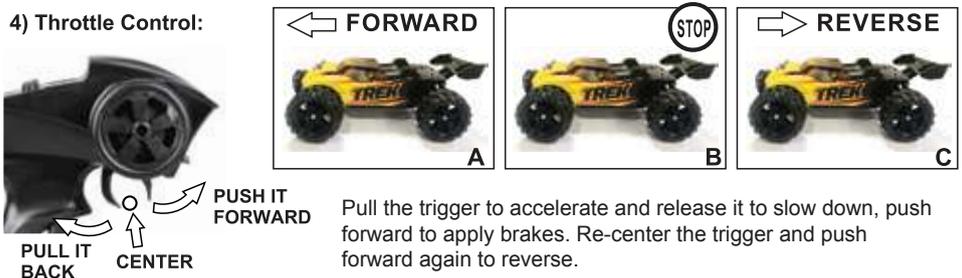


A) With the steering wheel centered, the vehicle runs in a straight line.

B) Turn the steering wheel to the left, and the car turns left.

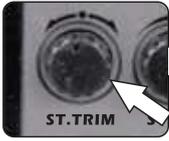
C) Turn the steering wheel to the right, and the car turns right.

## 4) Throttle Control:



Pull the trigger to accelerate and release it to slow down, push forward to apply brakes. Re-center the trigger and push forward again to reverse.

### 5) Steering Trim Knob:

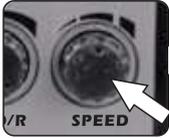


**Steering Trim**



Left Knob. Used to set the steering neutral point on front wheels. If the front wheels on the vehicle veer in one direction while the steering wheel is centered, turn this knob in the opposite direction until the vehicle drives straight.

### 6) Speed Knob:

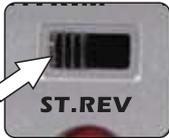


**Speed Control**



Right Knob. The Speed Switch is actually the throttle limiter. Turning down the knob all the way will reduce the maximum speed down to 40% of maximum speed. Turning up the knob will increase max speed up to 100%. It is advisable to operate the vehicle on the slower setting until you have had enough practice before operating at higher speeds.

### 7) Steering Direction Reverse Switch:



**Steering Reverse**

If the vehicle turns right when you steer left, flip "Steering Reverse" switch. If the vehicle turns left when you steer right, flip "Steering Reverse" switch.

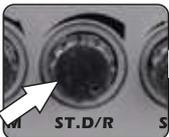
### 8) Throttle Forward/backward Reverse Switch:



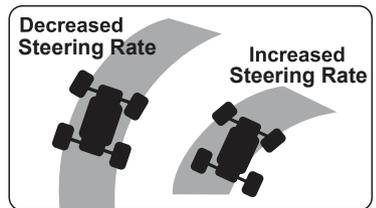
**Throttle Reverse**

If the vehicle goes backwards when you pull the trigger, flip this switch.  
If the vehicle goes forwards when you push the trigger, flip this switch

### 9) Adjustable Steering Rate



**Steering Control**



### How to use the adjustable steering rate knob (ST.D/R)

The steering rate knob allows you to change the amount of steering servo travel compared to the amount of physical movement of the steering wheel. The amount that you increase the steering rate is proportional to how much you move the steering rate knob. The steering rate can be adjusted while driving allowing you to fine-tune the steering during a race, ect. By increasing the steering rate (turn the knob clockwise), you can increase the travel of the steering servo which can reduce pushing in turns. By reducing the steering rate (turn the knob counter-clockwise), you can make the steering servo travel less which will increase the radius of the turn.

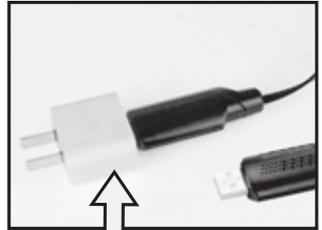
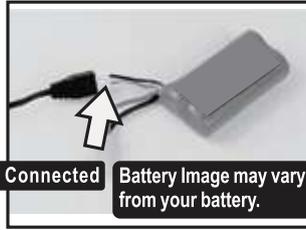
# Charging the Battery Pack

Use ONLY the specified charger (provided in the box) to charge the battery pack.

**Note:** The balance USB charger is provided in the box.

## ! WARNING!

- Do not charge the battery pack unattended.
- Do not use damaged and/or leaky batteries or a damaged charger.
- Children are not allowed to charge the battery without being closely supervised by adults.



**Red LED (Power LED)** is solid on as long as the charger is plugged on. (Even when no battery is load).

During charging, **Red LED** remains solid on, and **Green LED (Charging LED)** flashes slowly.

**Green LED (Charging LED)** becomes solid on after the battery pack has been fully charged.

**Alarm Indication : Red LED (Power LED)**

flashes rapidly which means the battery pack is damaged or over-discharged, which is not able to take to charge. If it is the case, please replace with the new battery pack.

**Charging Duration:**

**It will take 1.5 hours before your battery pack is fully charged.**

Tip: Smart phone AC POWER adaptors (5V,2A) can be applied to reduce charging period.

## Safety Precautions:

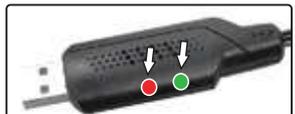
- Always leave a dry, clean and safe place for charging.
- Do not apply this USB cable to NON-rechargeable battery packs.
- Do not leave unattended whilst charging.
- Do not use a wet USB cable. Do not expose it to any source of heat and humidity.
- Kids are not allowed to charge unless they are closely supervised by adults.
- Keep out of children's reach when charging.



Red LED (Power LED) is solid on.



Charging: Green LED flashes slowly.  
Malfunction: RED LED flashes rapidly.



Battery pack having been fully charged,  
both Red and Green LED are solid on.

# After Driving Instructions



Press and hold for 2-3 seconds to switch off

- 1) Switch off the ESC/Receiver: **Press and hold the button for 2-3 seconds to switch off.**
- 2) Switch off the Transmitter: **Slide the Power Switch to "OFF" position.**
- 3) Disconnect and remove the battery pack from the car when not in use. Fully charge the battery pack before storing it.
- 4) Make sure there are no damage parts before storing it. Check gears for wear, debris or broken/slipping teeth. Check for loose screws in the chassis. And make sure the wheels are firmly before use. Clean the car with a soft and dry cloth before storing it. Store the vehicle in a clean and dry place out of children's reach. Do NOT expose the vehicle to any source of heat and water.

# Troubleshooting

## A. The vehicle does not work at all:

- 1) Check to ensure that radio controller and car are switched on.
- 2) Check if there are damaged parts/wires/connectors, repair or replace if necessary.
- 3) Car battery is flat. Charge the battery pack.

## B. The vehicle runs slowly:

- 1) Car battery is flat. Charge the battery pack.
- 2) Check if the vehicle is properly geared and no dirty or stripped gears are found. Make sure there is a reliable gear mesh for motor pinion and the spur gear.
- 3) Check if there is something stopping the moving parts and clean them immediately.

## C. The throttle works but not the steering:

- 1) Check if the servo feels jammed, and try centering it gently if it is the case.
- 2) Check if the servo link is loose or the servo breaks. Repair or replace if needed.

## D. It steers, but throttle is uncontrollable:

- 1) Check if there are damaged parts in the overall drive train.
- 2) Check the battery power both for radio controller and the car.

## E. The vehicle runs noisily:

- 1) Check gear mesh between spur gear and motor pinion.
- 2) Check if there are stripped and/or dirty gears.
- 3) Check if there are some parts getting damaged in the overall drive train.

## F. The vehicle is found one direction's steering travel is not same to the other.

Please tune the Steering Trim until Steering Center Point is fixed.

## G. Not able to charge the batteries:

Check if either the charger or the batteries is damaged, or batteries are over-discharged.

# PART LIST-1

RGRC2452	RGRC2457	RGRC2459	RGRC2455
 <p>Chassis</p>	 <p>Front Bumper+Battery Cover+Wing Stay</p>	 <p>Shock Assembly+Steering Assembly</p>	 <p>Suspension Arms</p>
RGRC2456	RGRC2458	RGRC2460	RGRC2462
 <p>Steering Hubs+Steering Links+Servo Link+Body Posts</p>	 <p>Front Shock Tower+Rear Shock Tower+Wing</p>	 <p>Front Drive Shaft + Rear Drive Shaft+Diff. Outdrive Cups</p>	 <p>Upper Deck +Servo Cover+Gearbox Housing</p>
RGRC2461	RGRC2463	RGRC2464	RGRC2465
 <p>Spur Gear+Diff. Bevel Gears+Diff.Pinions</p>	 <p>Diff. Case Housing+Drive Gears+Motor Pinion</p>	 <p>Diff. Complete</p>	 <p>Diff. Shims φ5.8*8.5*0.2 mm</p>
RGRC2466	RGRC2467	RGRC2468	RGRC2469
 <p>Spoke Wheels</p>	 <p>Tires</p>	 <p>Wheels Complete</p>	 <p>Centre Drive Shaft</p>
RGRC2470-1	RGRC2470-2	RGRC2471-1	RGRC2471-2
 <p>Wheel Shaft Pins (12P) φ 1.5*4.8</p>	 <p>Wheel Shafts(4P)</p>	 <p>Ball Stud. φ 5.8</p>	 <p>Ball Stud. φ 3.8</p>

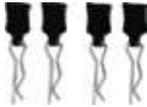
See your local hobby shop or place of purchase for parts availability. If necessary, parts can be ordered direct at [www.ragrc.com](http://www.ragrc.com) or call 1-866-724-3811 M-F, 9:00am to 5:00pm MT

## PART LIST-2

RGRC2472	RGRC2473	RGRC2474	RGRC2477
 <p>Steering Posts</p>	 <p>Rear Suspension Upper Hinge Pins ( 12P)</p>	 <p>Wheel Hex. Pins (<math>\phi</math> 1.5*6.8)</p>	 <p>ESC/Receiver PCB</p>
RGRC2478	RGRC2479	RGRC2480	RGRC2490
 <p>5-Wire Steering Servo</p>	 <p>RC 180 Motor</p>	 <p>Li-Po Battery Pack 7.4V</p>	 <p>Headlight</p>
RGRC2475	RGRC2471-3	RGRC2491	RGRC2492
 <p>Shock Springs (4P)</p>	 <p>Ball Stud. <math>\phi</math> 4.7</p>	 <p>Front/Rear Suspension Lower Arm Inside Hinge Pins</p>	 <p>Front/Rear Upper Arm Hinge Pins</p>
RGRC2493	RGRC2484	RGRC2481	RGRC2487
 <p>Rear Suspension Lower Arm Outside Pins (2*13mm) 8P</p>	 <p>Lock Nut M2.5 (8P)</p>	 <p>Motor Heatsink</p>	 <p>USB Charger</p>
RGRC2483-1	RGRC2483-2	RGRC2483-3	RGRC2488
 <p>Ball Bearings <math>\phi</math> 4*8*2mm</p>	 <p>Ball Bearings <math>\phi</math> 5*9*3mm</p>	 <p>Ball Bearings <math>\phi</math> 6.35*9.53*3.2mm</p>	 <p>2.4GHz Radio Controller</p>

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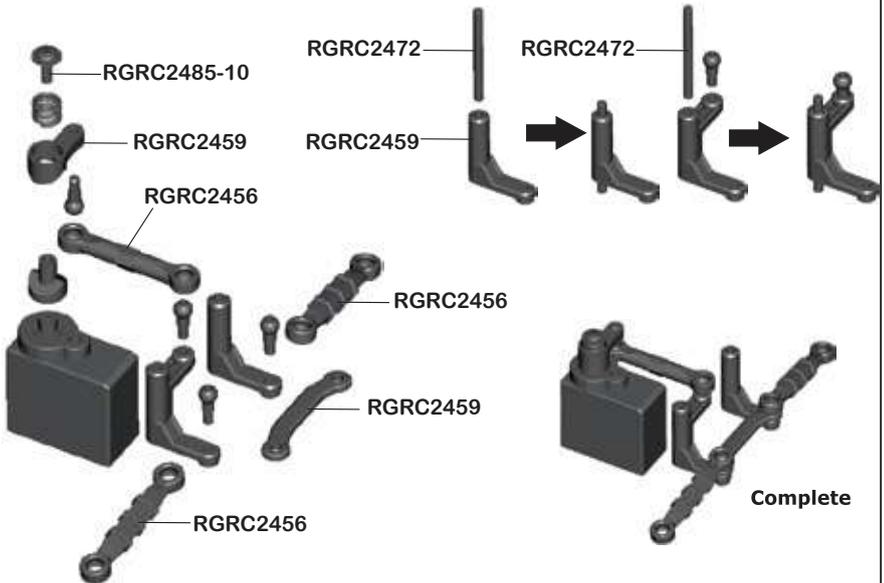
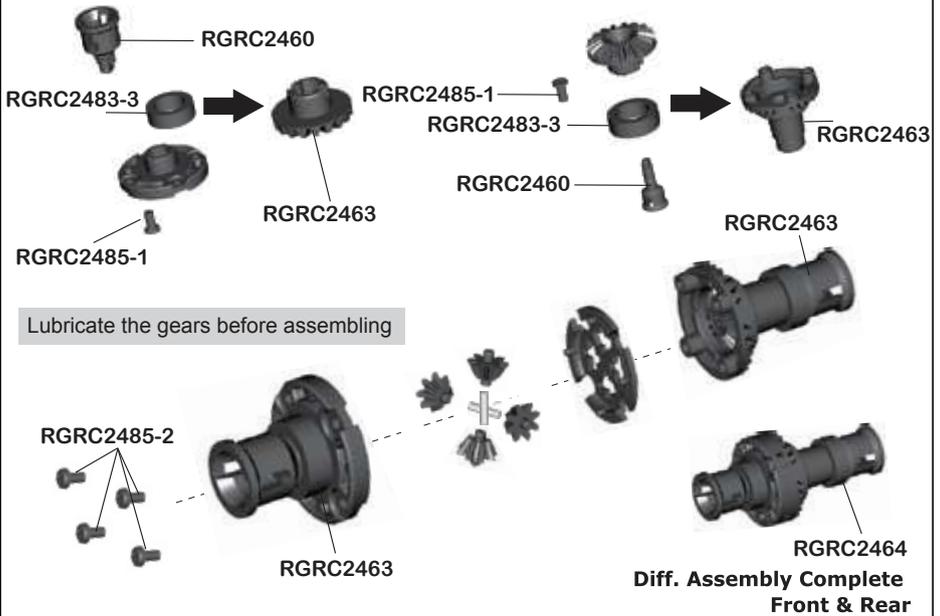
# PART LIST-3

RGRC2453R	RGRC2453Y	RGRC2482	
 <p>Car Body (Red)</p>	 <p>Car Body (Yellow)</p>	 <p>Body Clips (w/buckles)</p>	
RGRC2485-1	RGRC2485-2	RGRC2485-3	RGRC2485-4
<p style="text-align: center;">12P</p>  <p>Countersunk screws 1.5x5mm</p>	<p style="text-align: center;">12P</p>  <p>Countersunk screws 2x3mm</p>	<p style="text-align: center;">12P</p>  <p>Countersunk screws 2x5mm</p>	<p style="text-align: center;">12P</p>  <p>Countersunk self tapping screws 2x6mm</p>
RGRC2485-5	RGRC2485-6	RGRC2485-7	RGRC2485-8
<p style="text-align: center;">12P</p>  <p>Countersunk self tapping screws 2x9mm</p>	<p style="text-align: center;">12P</p>  <p>Pan Head self tapping screws 2x6mm</p>	<p style="text-align: center;">12P</p>  <p>Pan Head self tapping screws 2x8mm</p>	<p style="text-align: center;">12P</p>  <p>Pan Head self tapping screws 2x6mm</p>
RGRC2485-9	RGRC2485-10		
<p style="text-align: center;">12P</p>  <p>Flange Head self tapping screws 2x6mm</p>	<p style="text-align: center;">12P</p>  <p>Flange Head self tapping screws 2x9mm</p>		

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# EXPLODED VIEW-1

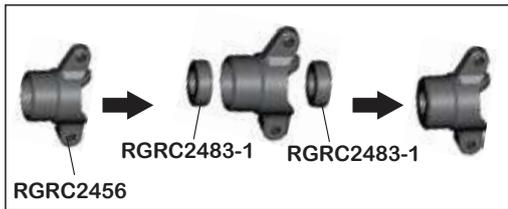
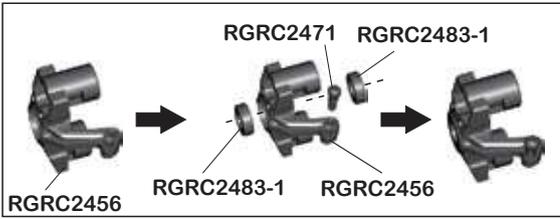
## Diff. Assembly



## Steering Assembly

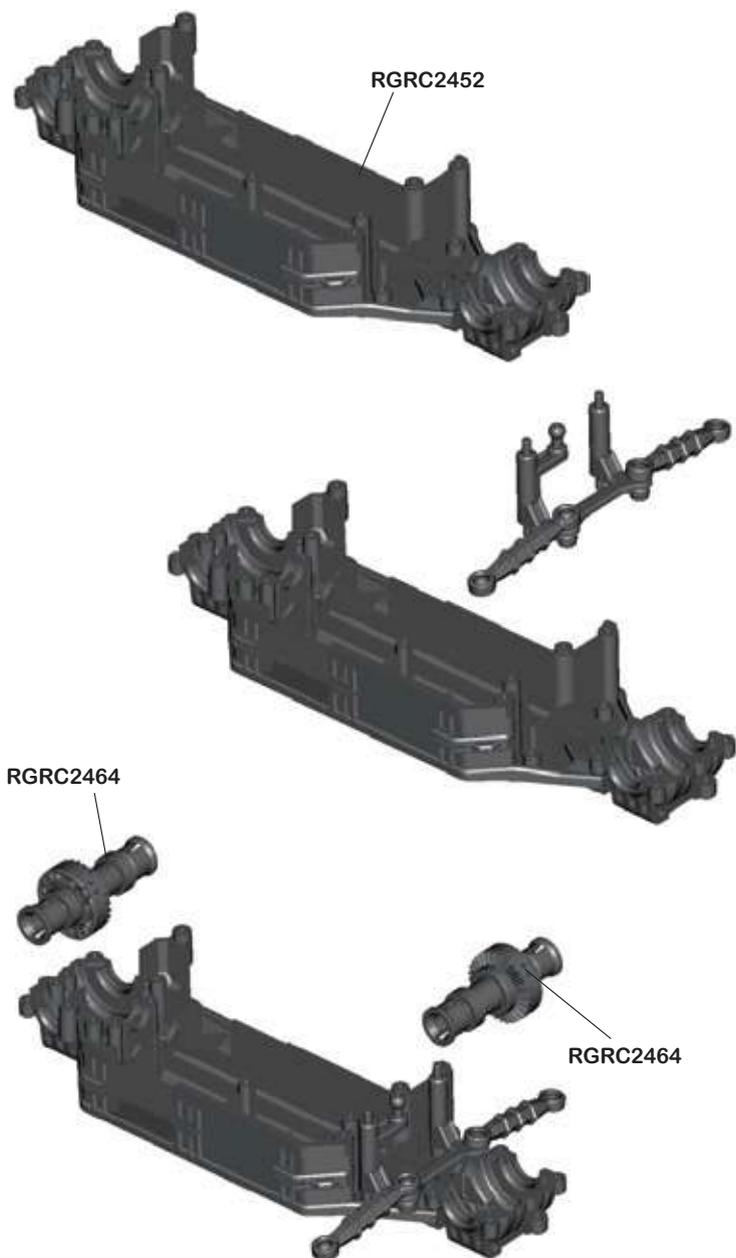
# EXPLODED VIEW-2

## Suspension Assembly Front and Rear



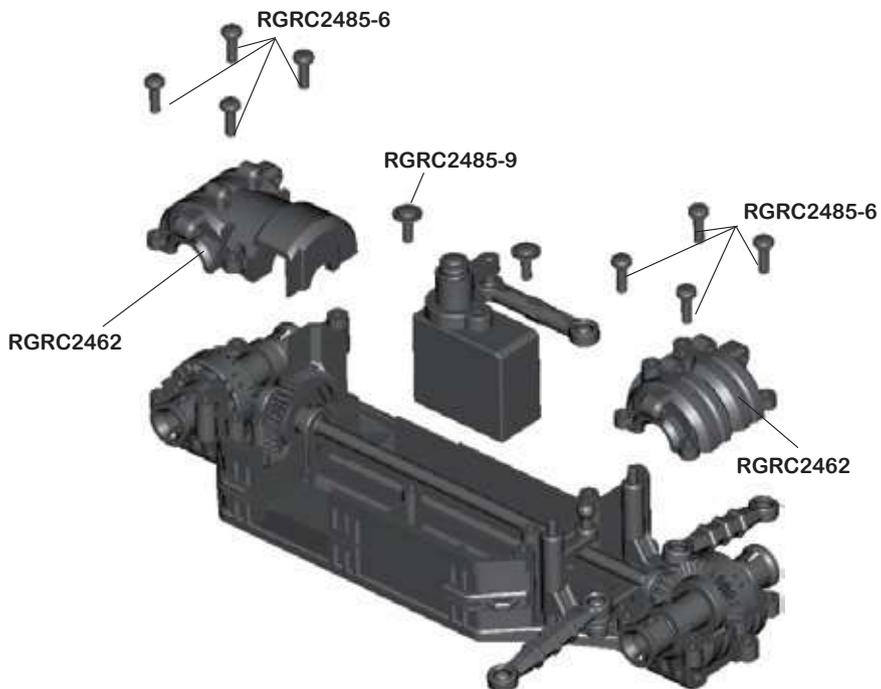
# EXPLODED VIEW-3

## Main Unit Assembly



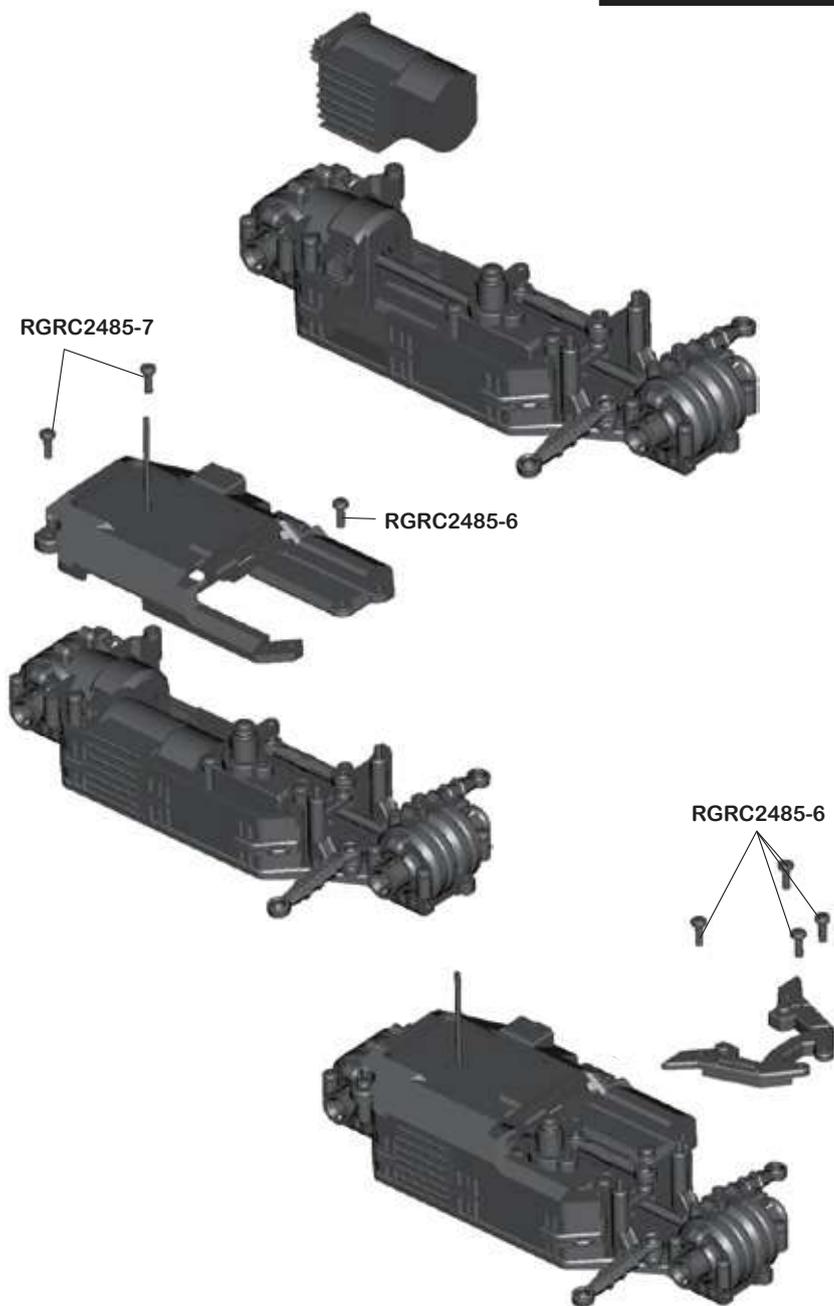
# EXPLODED VIEW-4

## Main Unit Assembly



# EXPLODED VIEW-5

## Main Unit Assembly



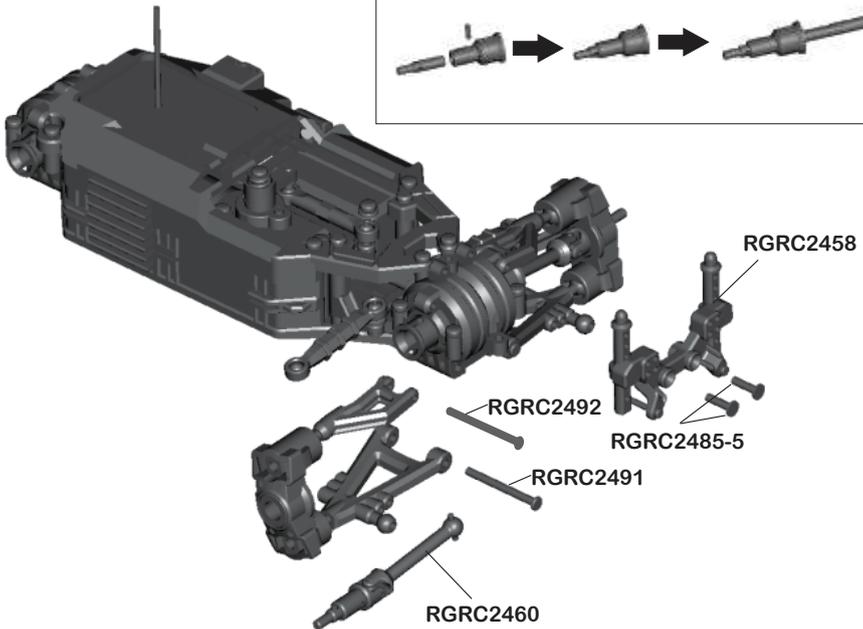
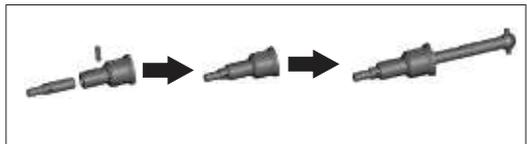
# EXPLODED VIEW-6

## Main Unit Assembly

### Shock Tower/Body Post Assembly(Front)

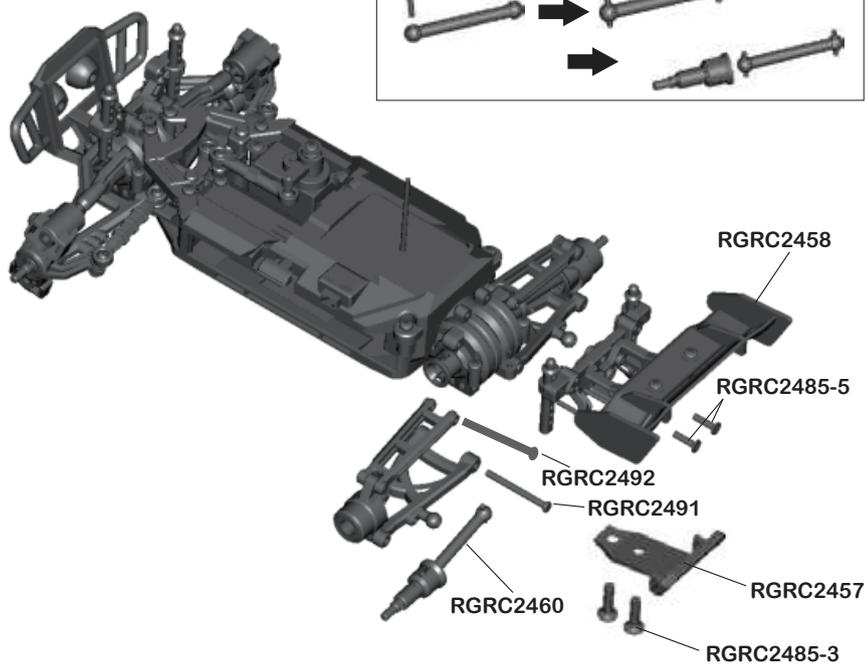
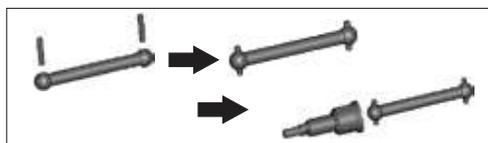
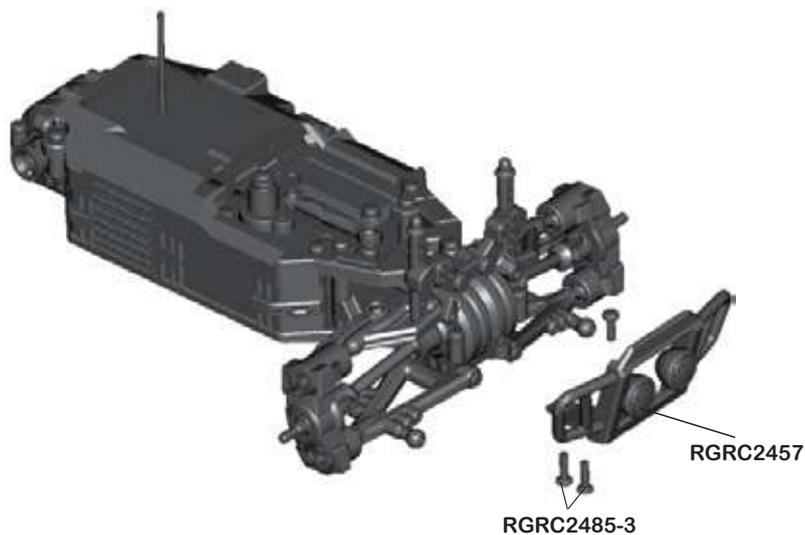


### Shock Tower/Body Post Assembly(Rear)



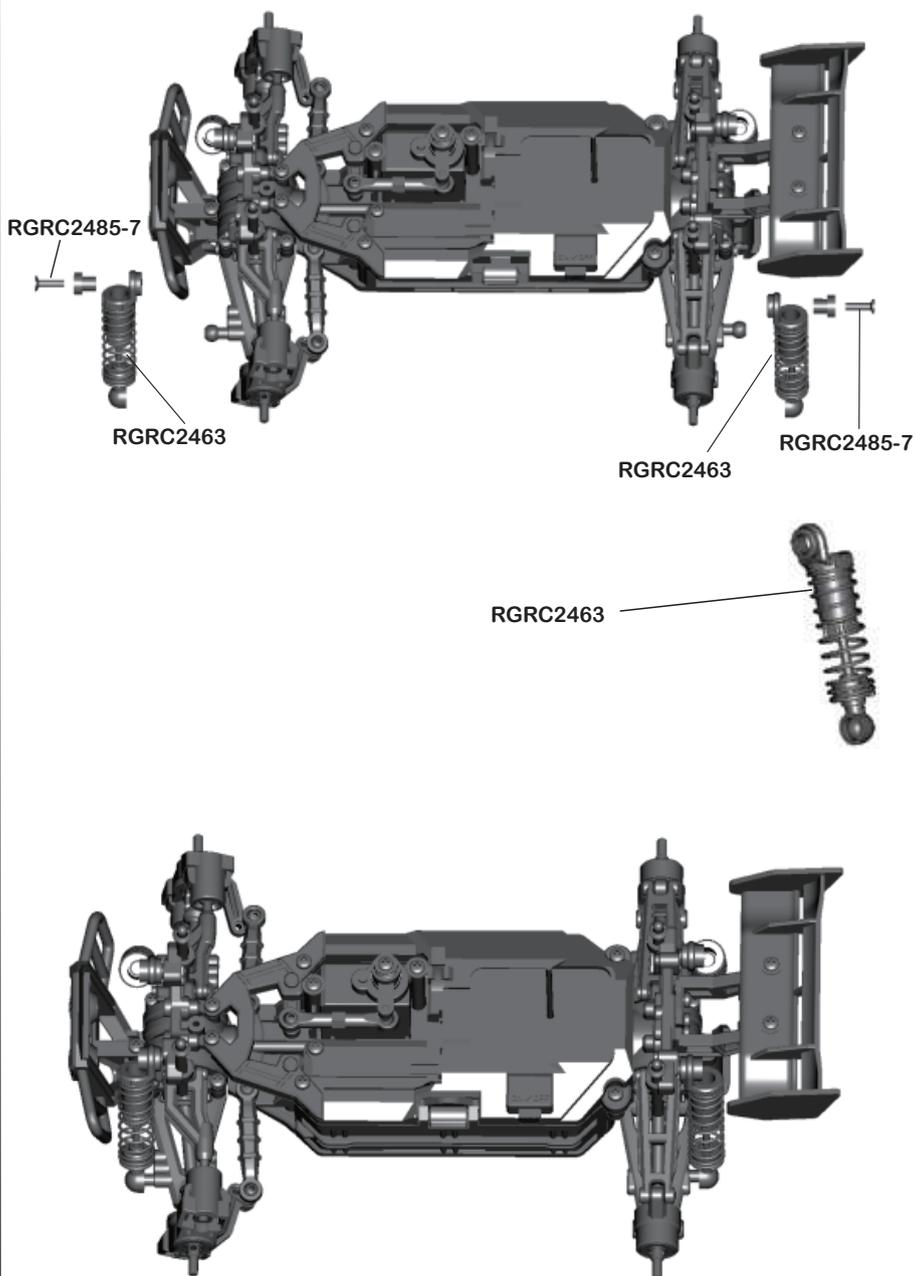
# EXPLODED VIEW-7

## Main Unit Assembly



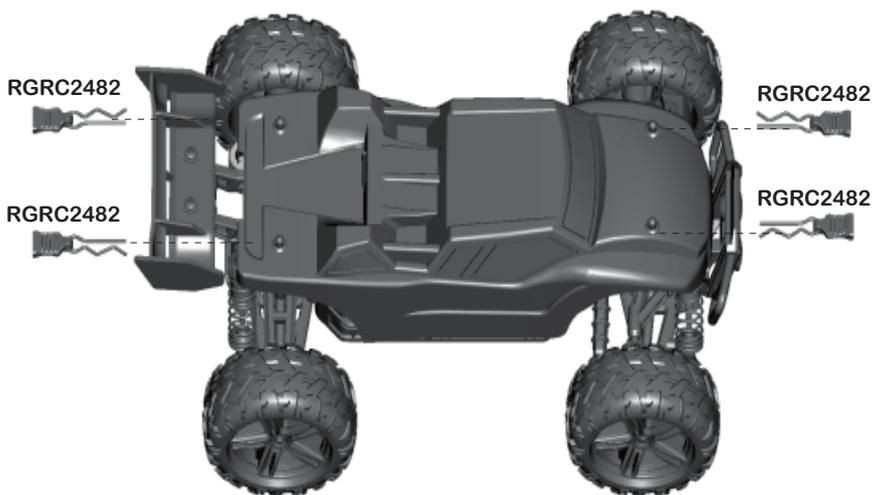
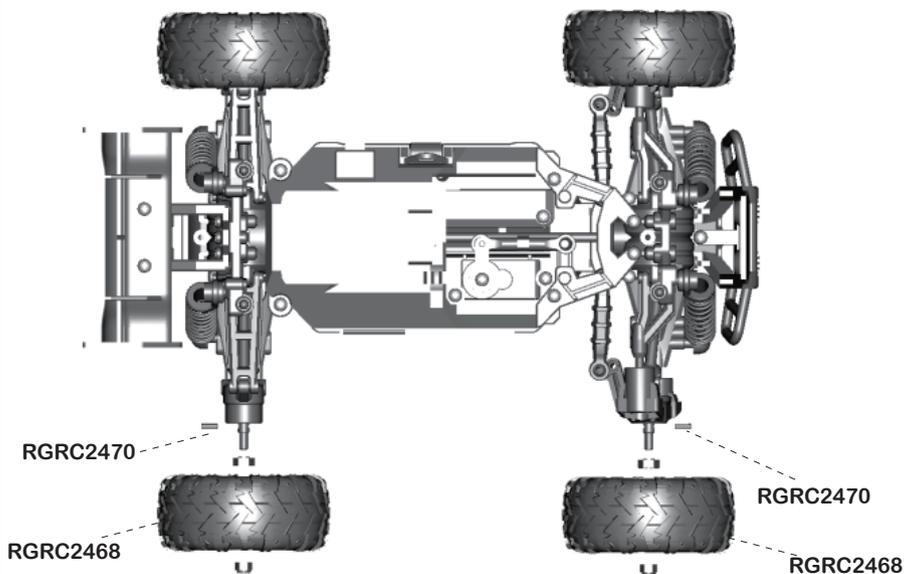
# EXPLODED VIEW-8

## Main Unit Assembly



# EXPLODED VIEW-9

Main Unit Assembly



# Warranty

Warranty Period: Rage R/C warrants that the MiniTrek ("Product") will be free from original factory defects in materials and workmanship upon purchase ("Warranty Period").

What is Not Covered - This warranty is not transferable and does not cover (a) cosmetic damage, (b) damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or due to improper use, installation, operation or maintenance, (c) modification to any part of the Product, (d) attempted service by anyone other than a Rage R/C authorized service center,

or (e) Product not purchased from an authorized Rage R/C dealer.

OTHER THAN THE EXPRESS WARRANTY ABOVE, RAGE R/C MAKES NO OTHER WARRANTY OR REPRESENTATION, AND THEREFORE DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND SUITABILITY FOR A PARTICULAR PURPOSE. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL MEET THE REQUIREMENTS OF THEIR INTENDED USE.

Purchaser's Remedy - Rage R/C's sole obligation and purchaser's sole and exclusive remedy shall be that Rage R/C will, at its option, either (a) service, or (b) replace, any Product determined by Rage R/C to be defective. Rage R/C reserves the right to inspect any and all Product(s) involved in a warranty claim. Service or replacement decisions are at the sole discretion of Rage R/C. Proof of purchase is required for all warranty claims.

SERVICE OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY.

Limitation of Liability - RAGE R/C SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF RAGE R/C HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Further, in no event shall the liability of Rage R/C exceed the individual price of the Product on which liability

is asserted. As Rage R/C has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability. If you as the purchaser or user are not prepared to accept the liability associated with the use of the Product, purchaser is advised to return the Product immediately in new and unused condition to the place of purchase.

Law - These terms are governed by Utah law (without regard to conflict of law principals). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Rage R/C reserves the right to change or modify this warranty at any time without notice.

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Salt Lake City, Utah 84104

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