

2022 PR SB401-R 1/10 Electric 4wd Off Road Buggy Kit (Centre Slipper/Diff Version)



PR Racing is excited to finally announce the release of our latest 1/10 electric four-wheel-drive offroad buggy the 2022 SB401R. We at PR Racing have been working behind the scenes carefully and patiently to refine our products for optimum performance. So quickly, 4 years have passed since the release of our last SB401 chassis and we apologize to our supporters for the wait. The design and performance of the SB401R platform has continued to competitive at all levels, so we have seen no need to replace the design and introduce a new kit every year. The 2022 SB401R has been extensively tested in three major racing territories – the United States, Europe and Japan, after which all the data and feedback from drivers are carefully studied to refine our designs. All this ensures that the kit and its stock setup out of the box is the best baseline for a high-performance buggy that is easy to drive fast for drivers on a broad range of track conditions. There are more than 30 updates in this new kit that include not only those visible at a glance but also changes in materials for various parts to optimize the car's handling. Shock Absorbers: The smooth operation of shocks with minimum 'stiction' is critical for performance. After extensive testing, the test teams have identified new O rings that are now included in the new shock package that also includes revised shock towers. The new towers feature new geometry and setup options that have proven to increase stability on flat or bumpy tracks. Wishbones: New wishbones made from fiber composite are durable and provide the ideal flex characteristics for better track handling. These are matched with new rod ends on the upper suspension links that are made with a new material that has been tested to be more sturdy and with less slop for a more precise handling car. Transmission: The team also looked at how to refine the bullet-proof transmission. The driveshafts and main drive gears are made of all new materials that not only give more positive acceleration, they also result in a more direct drive feel. Chassis: Chassis flex has been a key area of our testing, research and refinement. Too much flex impacts the car's ability to corner precisely and too little flex results in a car that is too sensitive and hard to drive. Our designers carefully studied and tested chassis flex and developed new softer chassis braces and a re-designed gearbox brace that received very positive feedback from our test drivers in all three countries. Our engineers have also incorporated into the new gearbox brace different setting options so flex can be further fine-tuned for a broad variety of track conditions. Steering: The previous SB401 chassis was known for its stable handling characteristics, especially on loose dirt tracks. Our drivers racing on carpet or astro-turf tracks felt that the car could further be optimized for these high-grip conditions. Our latest car features a re-designed steering plate with geometry that has unlocked more of the car's potential. This new geometry combines with the included 8-degree C-hubs to produce a steering response that, according to one Japanese test driver, allows the driver to be very connected to the car. We hope this info highlights some of the key changes you can find in the new 2022 SB401R and explains the careful thought behind each update. MIT's (Made In Taiwan) PR has built a strong reputation across the world for excellent products. The RC community in Taiwan is fortunate as they have not been impacted by raw material supply issues and have a helpful family of racers to readily provide support. Once again, we apologize for the long wait, but we are happy to announce we are now accepting pre-orders for the all new 2022 SB401R.

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ITEM NO:77500296

Name: 77500296-2022 PR SB401-R 10TH Electric 4wd Off Road Buggy Kit (Centre Slipper/Diff Version)

A number of key components have been totally redesigned to produce a better handling and more forgiving car to drive. The main focus has been on the all new narrow 2.5mm chassis and plastic side-pods which utilizes a carbon fibre reinforced spine to controltorsional and longitudinal flex. The

additional flex has proved to increase grip, and make the car feel more balanced and easier to drive leading to faster, more consistent laps.

Chassis

Hard anodized 2.5mm Narrow chassis with side-pods Plastic/carbon chassis spine with CNC alloy bulkheads Alloy/Carbon floating servo mount Type R ultra-low CofG Body

Transmission

New stronger/quieter pinions and ring gears

New vented slipper assembly with ultra-hard shafts
and cups for long life

Top loading slipper/centre diff mount for easy access

Longer diff cups to allow for more droop



Manual connection

Suspension and Steering

12mm 2022 Type R shocks

Suspension hangers with inserts for toe and anti-squat adjustment

Revised Ackermann geometry for improved steering feel

8 Degree CNC caster blocks

CNC alloy rear hubs

Hard wishbones

New shorter black ball cups

New high tensile steel turnbuckles

Specifications

Type: 1/10th 4wd Off Road Power Source: Electric

Wheelbase:287mm (variable)

Width:245mm-248mm

Gear Ratio: 2.6:1

Weight:1680g-1720g race ready (varies)

Hardware: Full metric

Bearings: Sealed Metal Ball Bearings

Wheels:12mm hex
Kit: Assembly required

Items Required to Complete

2 Channel surface frequency radio s system2S LiPo battery & compatible lipo charger

1/10 ESC, motor & pinion gear

High Speed Servo 1/10 tire and inserts

| • BEFORE INSTALLA | ATION | | 01 |
|---|--|---|-------|
| | ssembly-Chassis Brace Installation nbly ly nbly | BAG E E1-Front & Rear Shock Assembly-R E2-Front & Rear Shock Installation E3-Motor Installation E4-Mounting Tires, Wheel Installation | 21-23 |
| B1-Suspension Mou B2-Front Hub Carrie B3-Suspension Mou B4-Front Upper Tu B5-Gearbox-Reinfo BAG C C1 Rear Assembly I C2-C3-Rear Left Hu C4-Rear Upper Rod C5-Sway Bar Instal BAG D D1-Bell Crank Insta D2-Steering D3-Turnbuckle Asse D4-Steering Servo D5-Center Mount Pi | er Assembly(Left Right Side) unt Installation-Sway Bar Installat urnbuckle Assembly urcement - Front | ion | |
| D6-Battery Plate In Upgrade Parts Setup Sheet Pinion Spur Gear | | | -25 |

BEFORE INSTALLATION

1 Read through the instruction manual before installation in order to have an overview of what to do.

2 Check if there are any missing bags or defective parts, if there are, please contact our local dealer or our PR Distributor.

3 Symbols used throughout the instruction manual, comprises of:



Part bags used.



Assemble as many times as specified (here: twice).



Tighten securely.



Note the direction.



True-to-scale diagram.



Do not over tighten.



Must be purchased separately.



Apply threadlocker (screw cement)



Ensure smooth non-binding movement while assembling.



Assemble in the specified order.



Apply grease.



Cut off shaded portion.



Assemble left and right sides the same way.



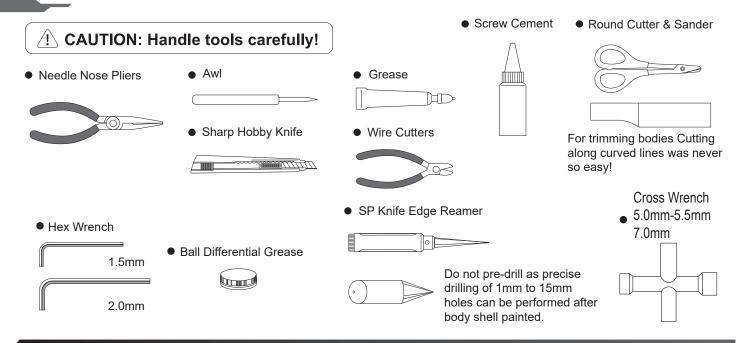
Apply oil.

This kit contains screws and hardware in different metric sizes and shapes. Before using them, check the screws on the true-to-scale diagrams on the left side in each assembly step. Some screw are extras.

HEALTH WARNING

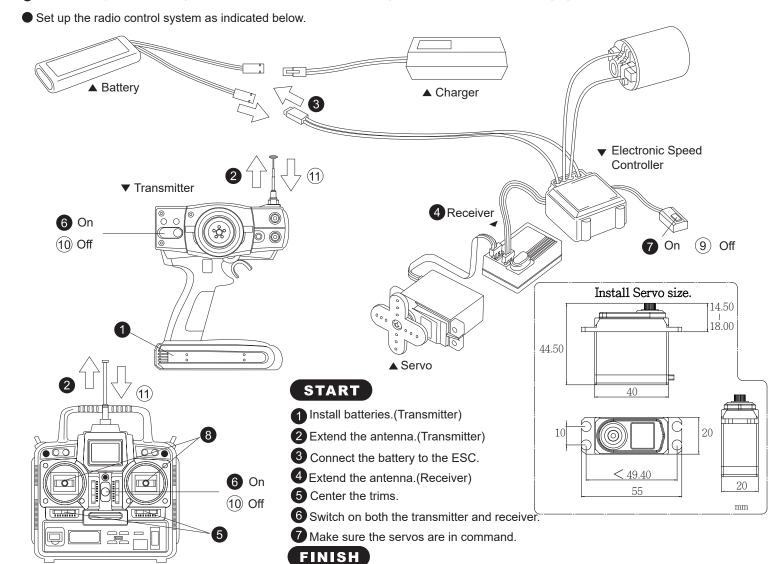
This model is a high performance radio controlled racing product that is designed for use on R/C car race tracks. If it is misused it could cause injury to the operator or others. Many of the items in this kit are small enough to be accidentally swallowed; therefore, it is not suitable for young children. All items, inclusive of liquids, contained in this kit are not intended for human consumption. Rotating parts of the car may cause injury if not handled with

TOOLS REQUIRED



RADIO PREPARATION

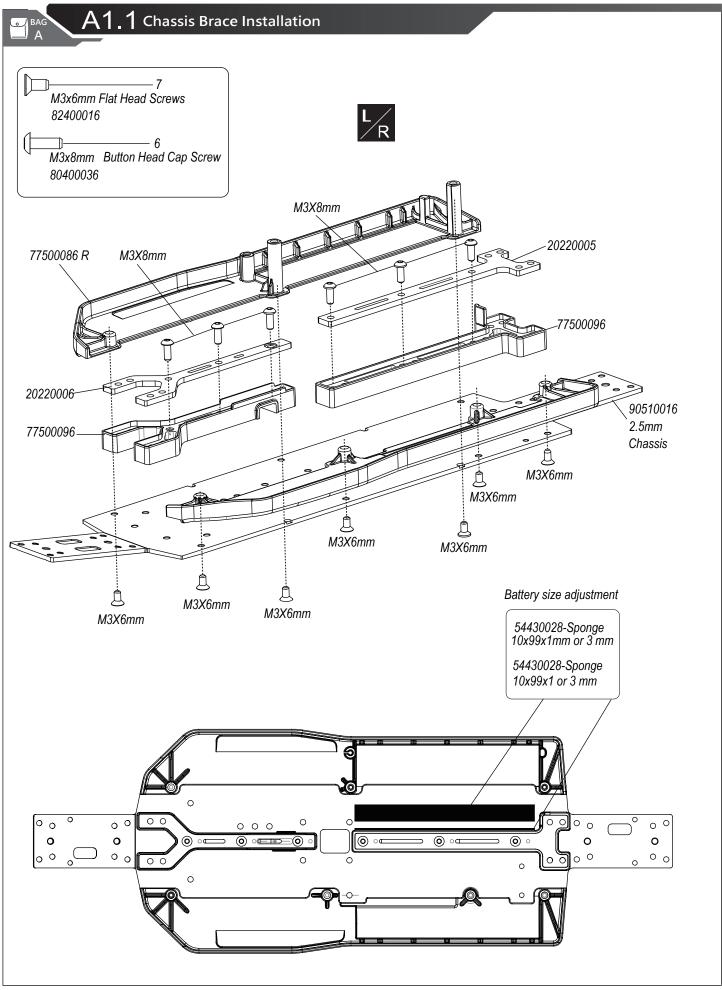
● A new battery must be charged before it is used. Refer to the charger instruction manual for charging.

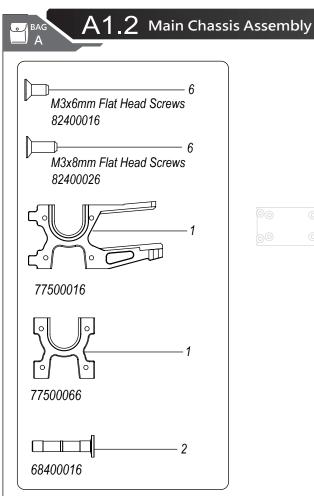


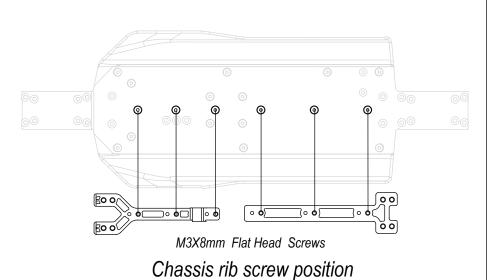
8 Switch off both the transmitter and receiver.

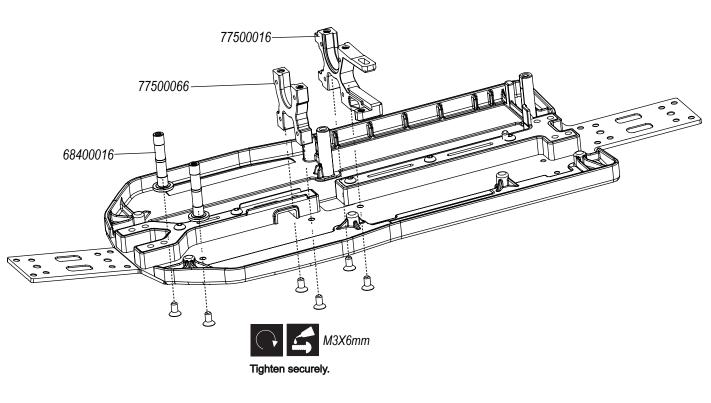
(9) Retract the antnna. (Transmitter)



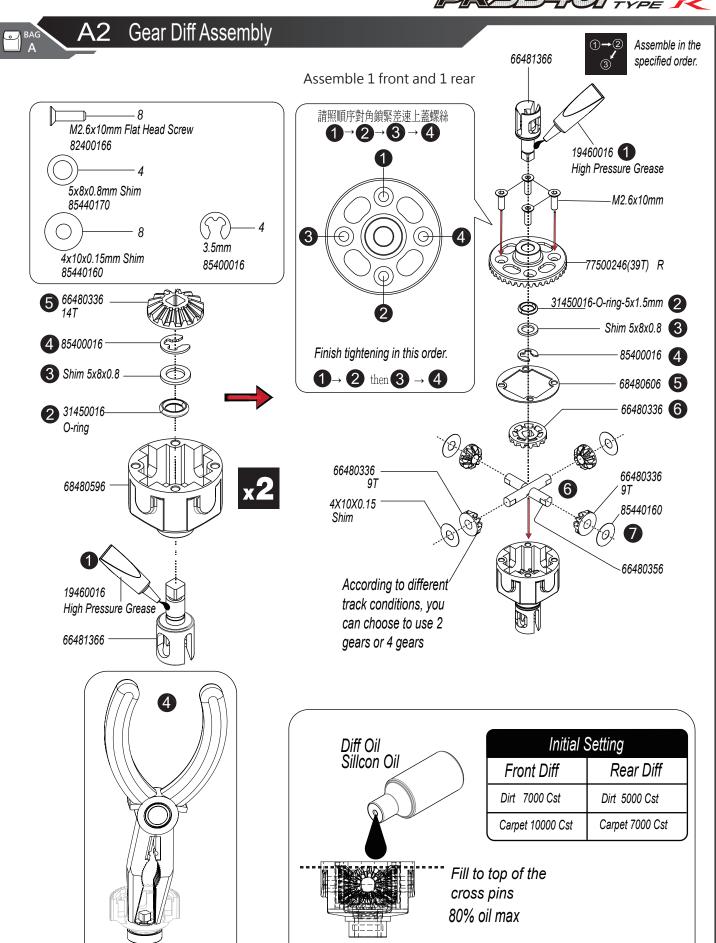


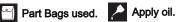








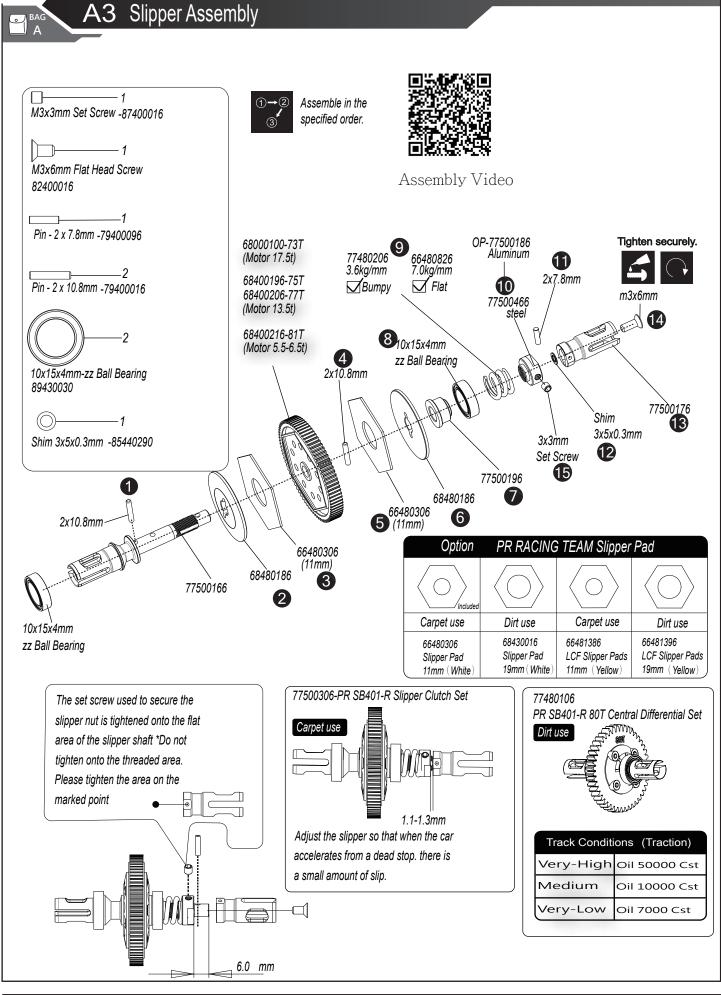




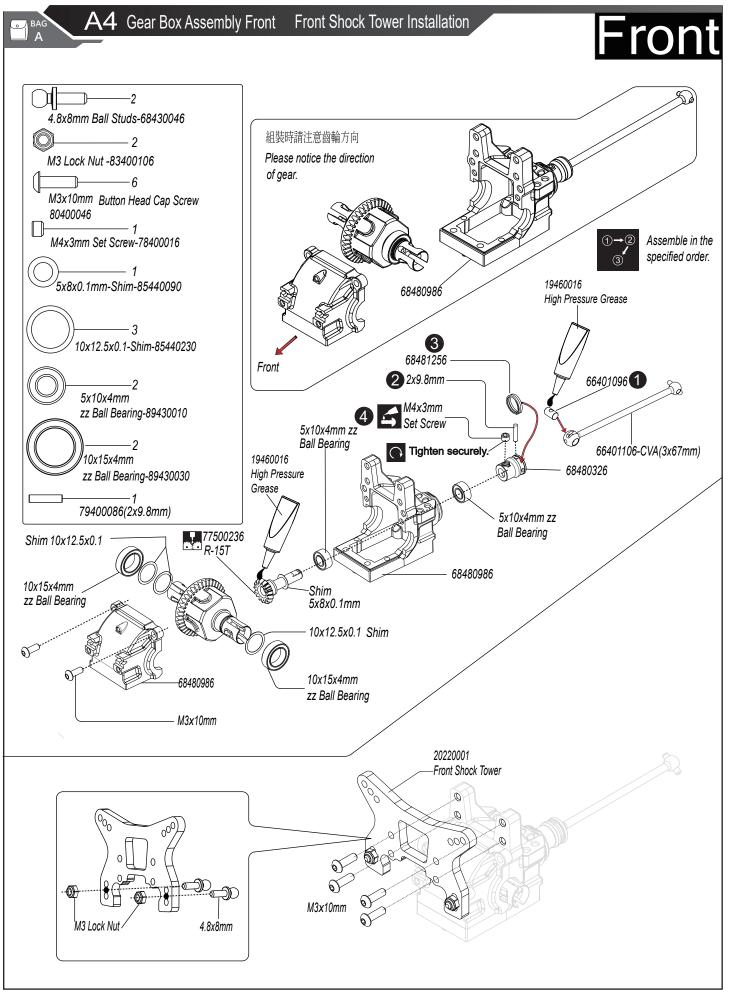
E-clip installation



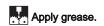






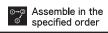




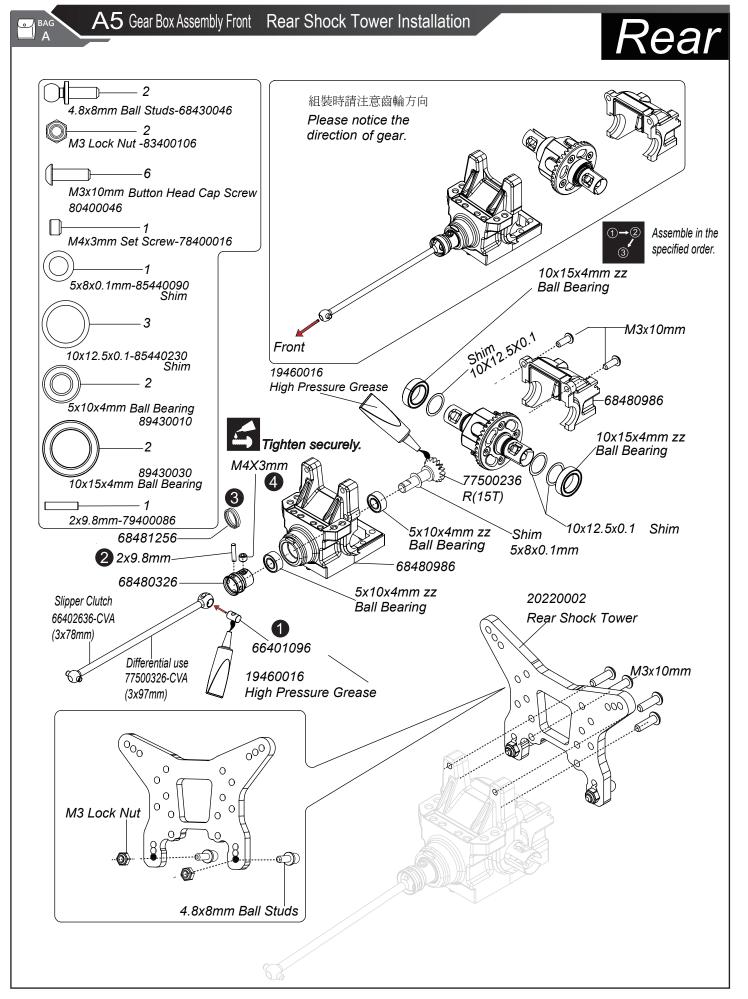




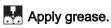




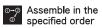




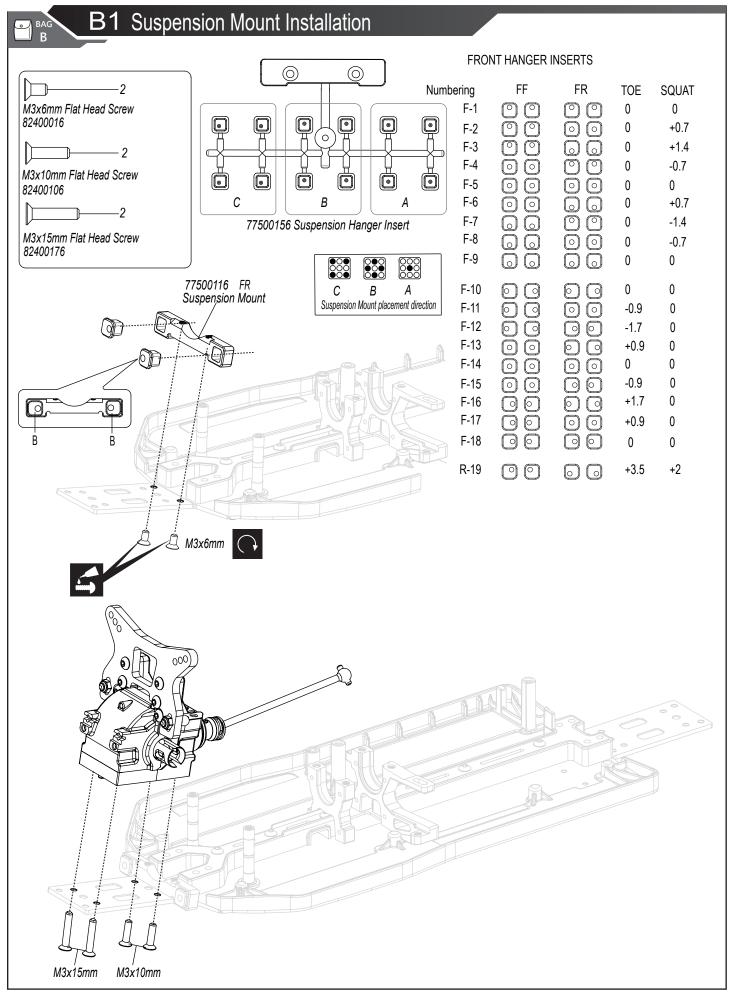








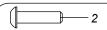






B2.1 Front Hub Carrier Assembly (Left Side)

Left Side



Button Head Cap-80400206 Screw M3x12mm



4.8mmx6mm-68430036 Ball Studs



5x10x4mm zz Ball Bearing 89430010



5x13x4mm zz Ball Bearing 89430020

_ 1 Pin2x9.8mm-79400086

Pin 2 x10.8mm-79400086



Shim 5x8x0.1mm-85440090

□ 1 m2x5mm-87400066

Silver Aluminum Spacer -1mm 3x6.6x1mm-85440310



(Brown)

2.3mm-7500267



(Brown)

1.1mm-77500268



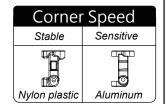
(Silver)

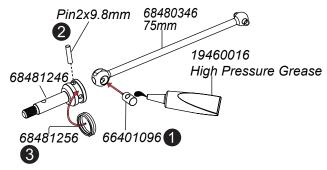
0.8mm-77500216

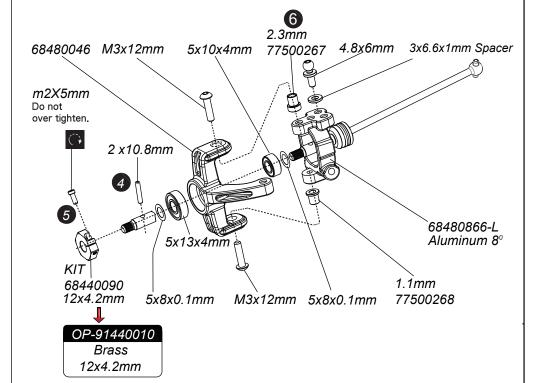
77480160 Alu Steering Knuckles uses

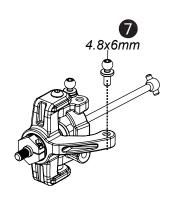
68480046 plastic 5 Degree Caster Block uses



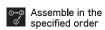








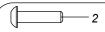






B2.2 Front Hub Carrier Assembly (Right Side)

Right Side



Button Head Cap-80400206 Screw M3x12mm



4.8mmx6mm-68430036 Ball Studs



5x10x4mm zz Ball Bearing 89430010



5x13x4mm zz Ball Bearing 89430020

Pin2x9.8mm-79400086

Pin 2 x10.8mm-79400086



Shim 5x8x0.1mm-85440090

m2x5mm-87400066

Silver Aluminum Spacer -1mm 3x6.6x1mm-85440310



(Brown)

2.3mm-7500267



(Brown)

1.1mm-77500268



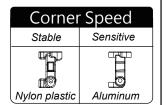
(Silver)

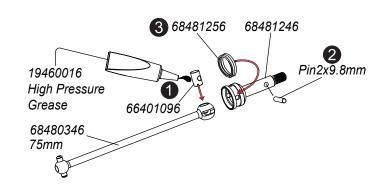
0.8mm-77500216

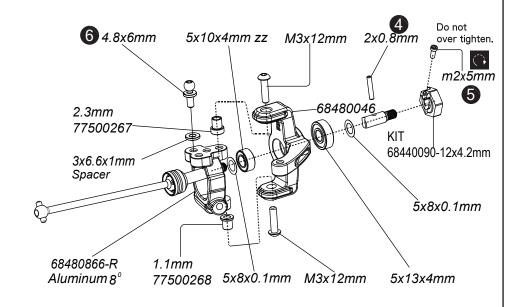
77480160 Alu Steering Knuckles

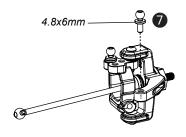
68480046 plastic 5 Degree Caster Block uses





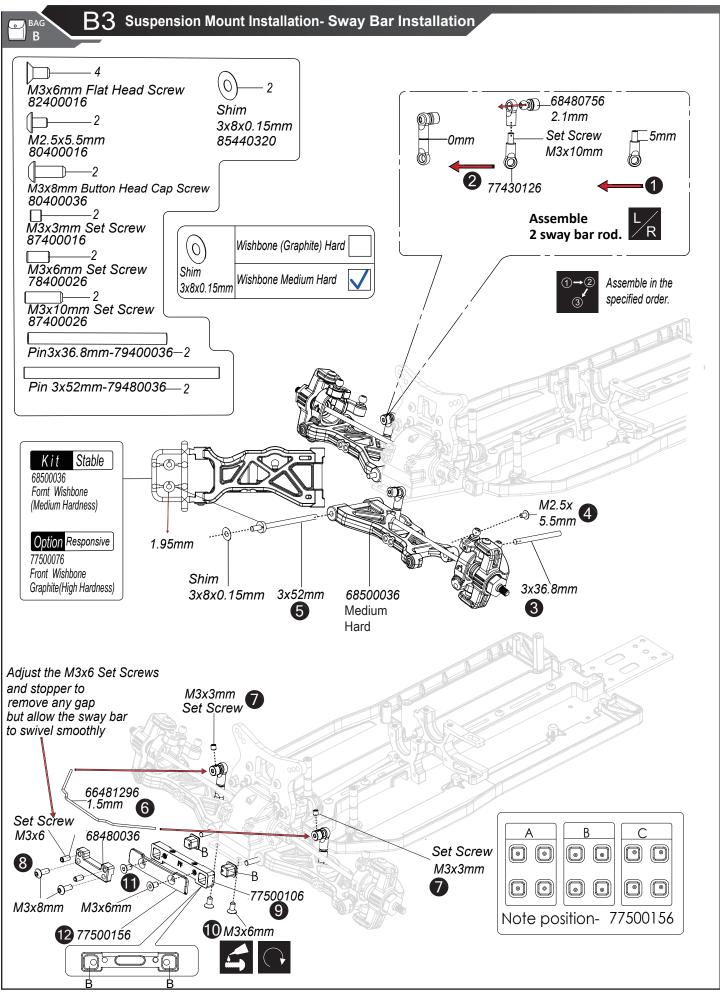


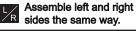




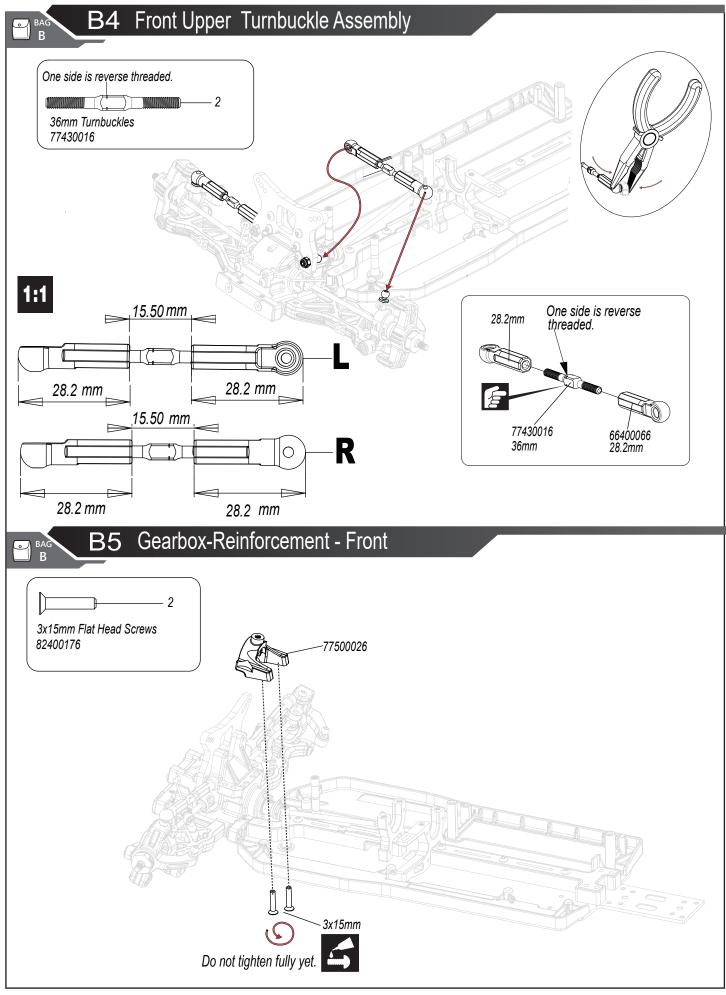




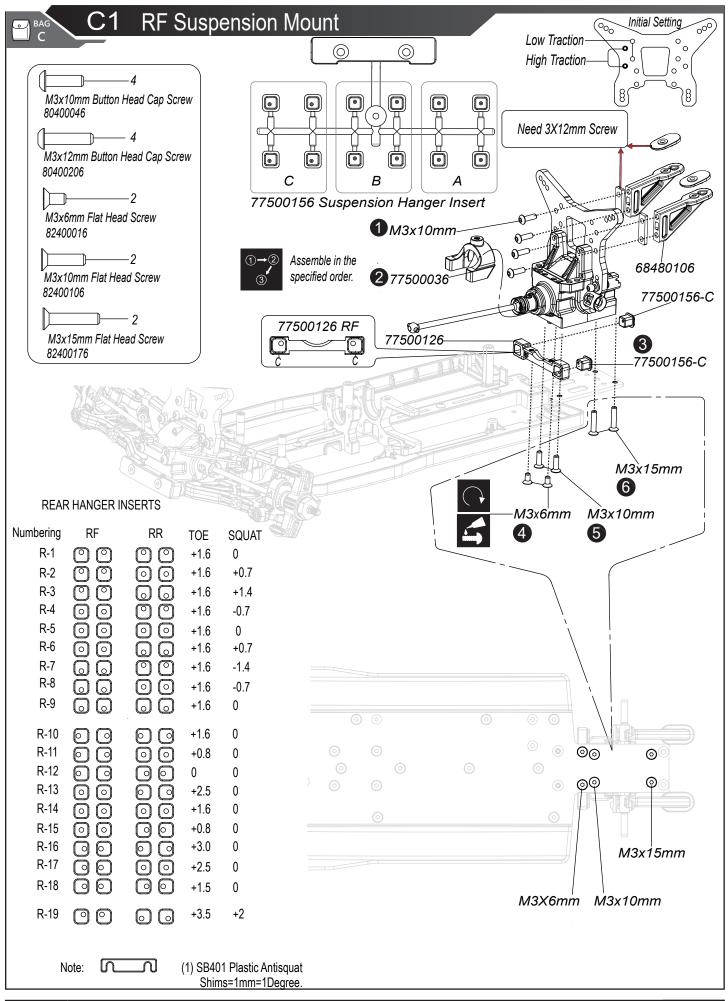






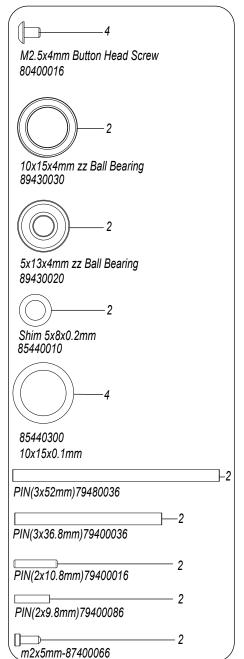


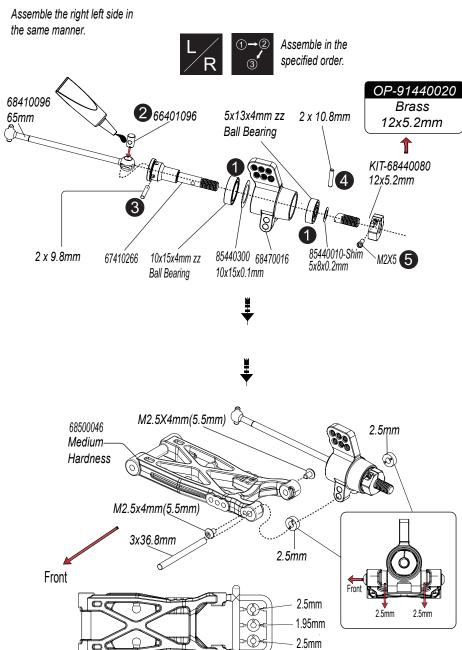


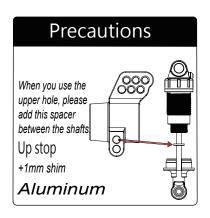




Rear Left Hub Carrier Assembly





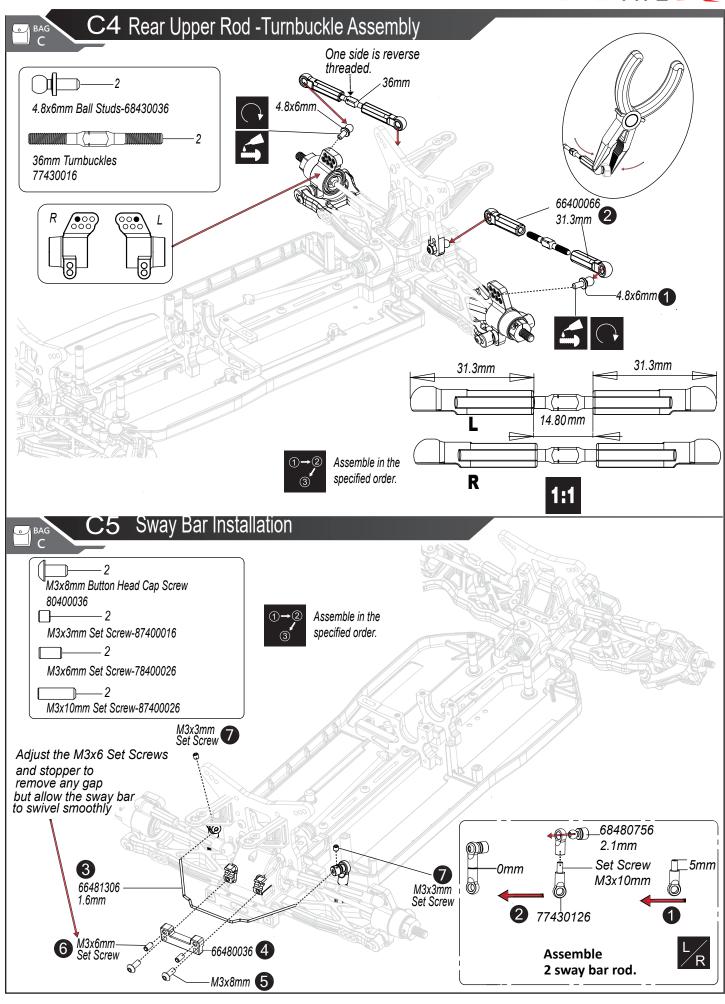


| Corner Speed | | |
|---------------|----------------------------|--|
| Stable | Responsive | |
| Nylon plastic | Responsive Stable Aluminum | |



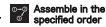
Rear Left Hub Carrier Assembly m3x6mm Flat Head Screws 82400016 **—**2 M3x15mm Flat Head Screw Note position 82400176 Assemble in the specified order. 3 Pin 3x52mm-79480036 — 2 Wishbone (Graphite) Hard (O)0 Shim Wishbone Medium Hard Shim 3x8x0.15mm 85440320 3x8x0.15mm Numbering RF RR R-1 0 +1.6 R-2 +1.6 +0.7 77500136 R-3 +1.6 +1.4 1.95mm R-4 +1.6 -0.7 Shim R-5 +1.6 0 3x8x0.15mm R-6 +1.6 +0.7 R-7 +1.6 -1.4 R-8 1.95mm +1.6 -0.72 R-9 +1.6 0 R-10 +1.6 0 R-11 +0.8 0 R-12 0 0 3x52mm R-13 +2.5 0 1 M3X6mm R-14 \bigcirc +1.6 0 +0.8 0 R-15 M3x15mm R-16 +3.0 0 Do not tighten fully yet. R-17 +2.5 0 R-18 +1.5 0 2.5mm +3.5 +2 R-19 (Õ) 1.95mm _N (1) SB401 Plastic Antisquat Note: Shims=1mm=1Degree. REAR HANGER INSERTS **Track Conditions** Traction Traction Traction 2.5mm 2.5mm 2.5mm₁ 2.5mm Very-Low Very-High Medium 0 **@**@ <u></u>@@ 0 <u></u>@@ 0 මම **0**0 <u></u>@@ Front Front Front <u></u>@@ <u></u>@@ <u>ම</u> **@**@ <u>ම</u>ම <u></u>@@ **o**.





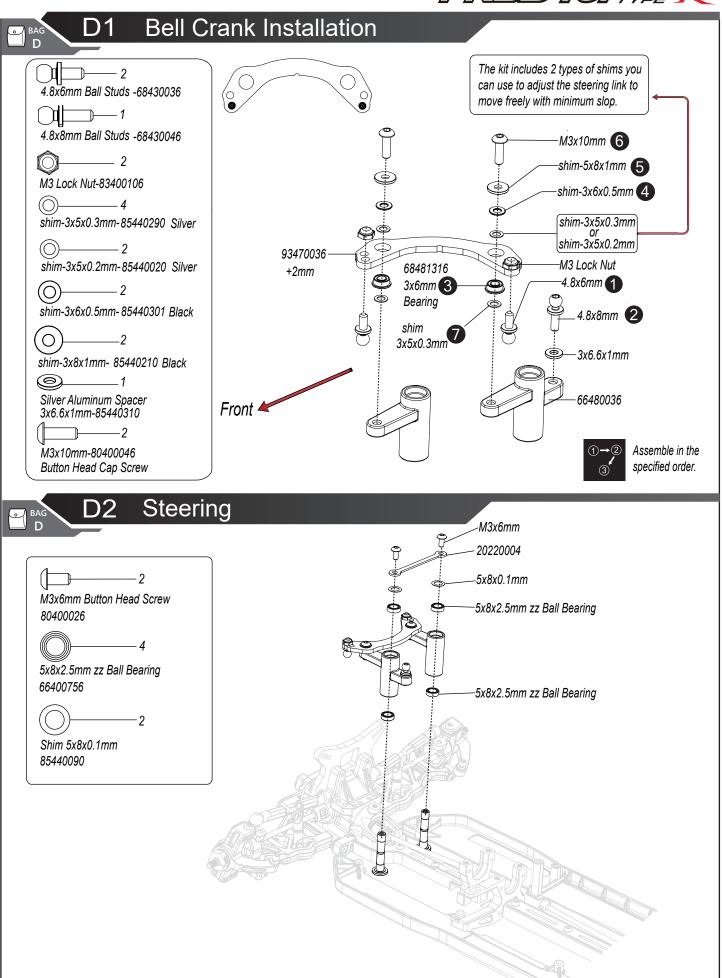




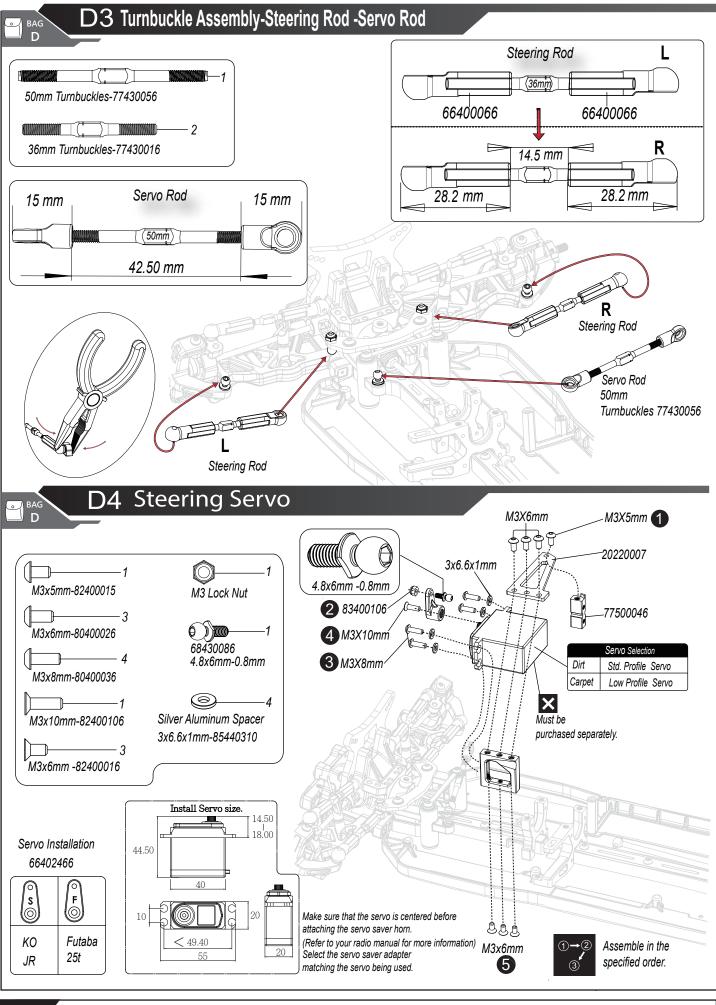




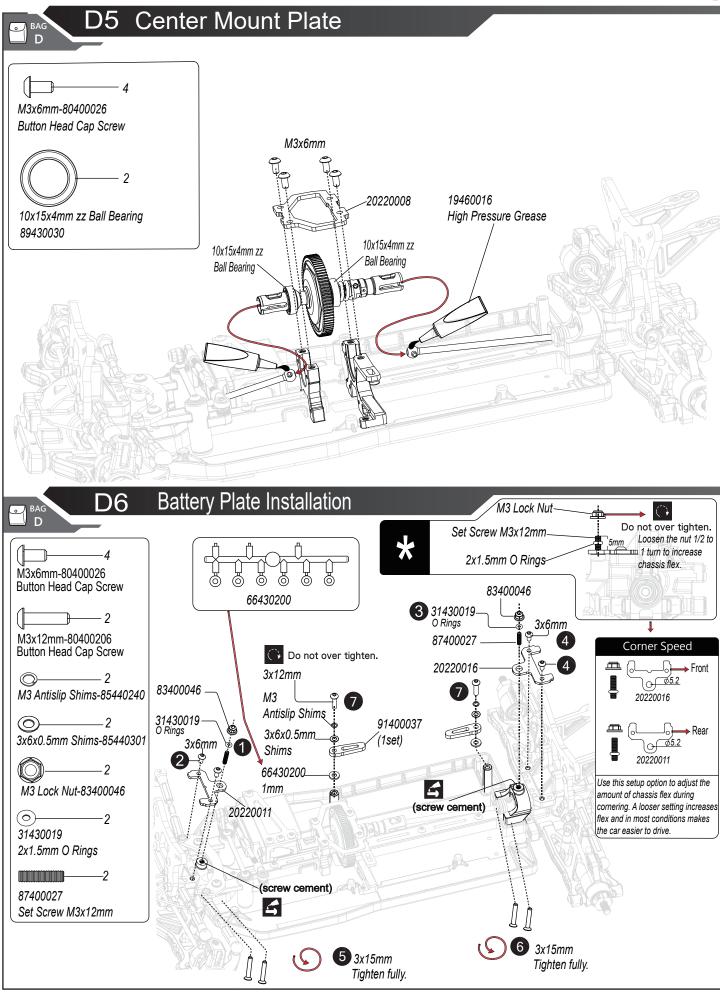






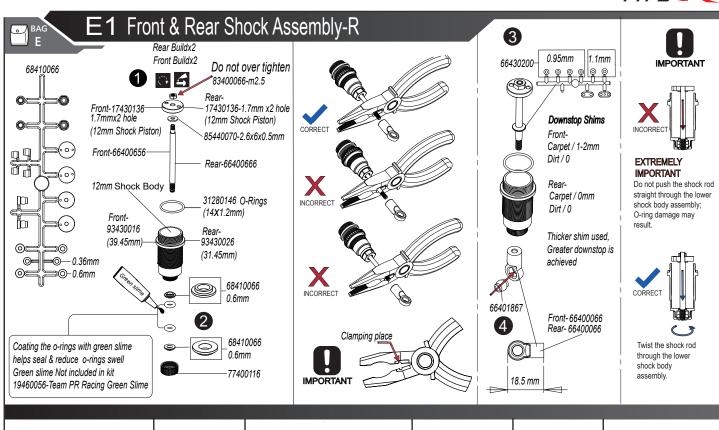


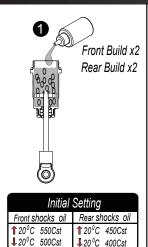


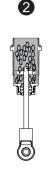




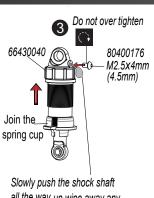


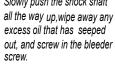


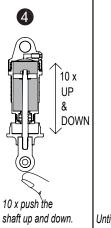


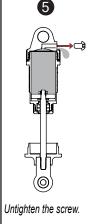


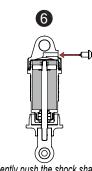




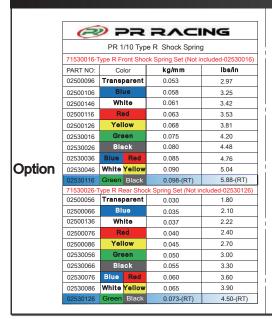


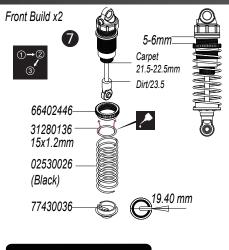




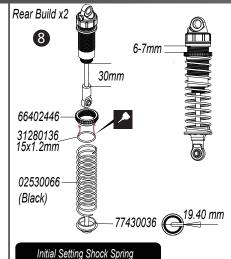


Gently push the shock shaft completely into the shock body. Wipe away any excess oil that flows through the hole in the shock cap and screw in the bleeder screw.





| Initial Setting Shock Spring | | |
|------------------------------|-----------------|--|
| Dirt use | Carpet use | |
| 02530016(Green) | 02530026(Black) | |



Carpet use

02530066(Black)



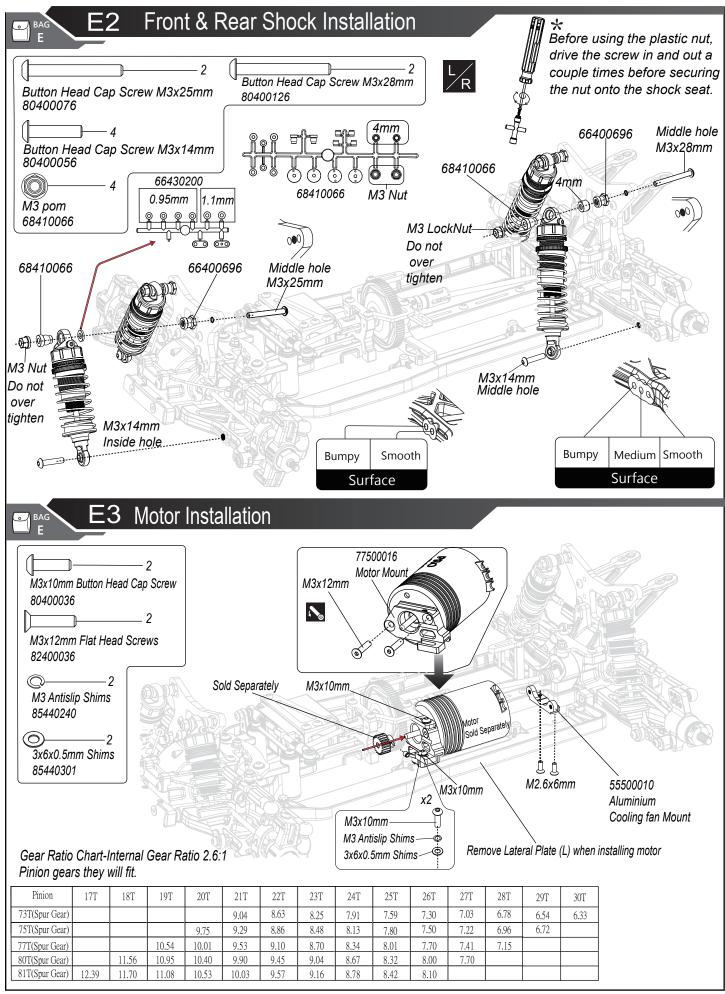




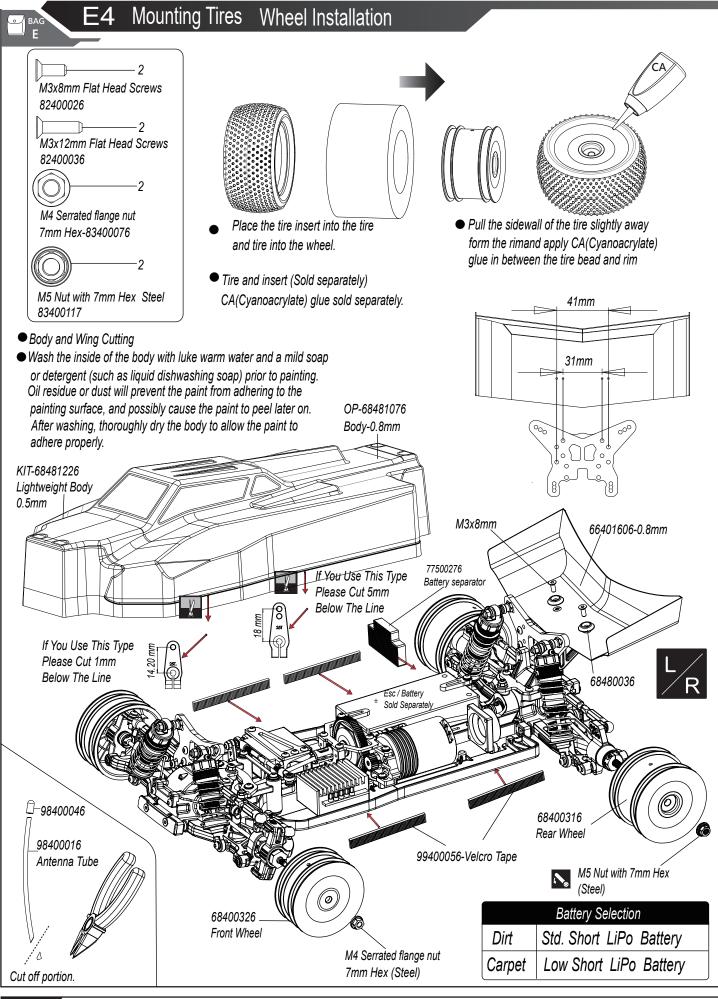
Dirt use

02530056(Green)



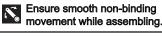








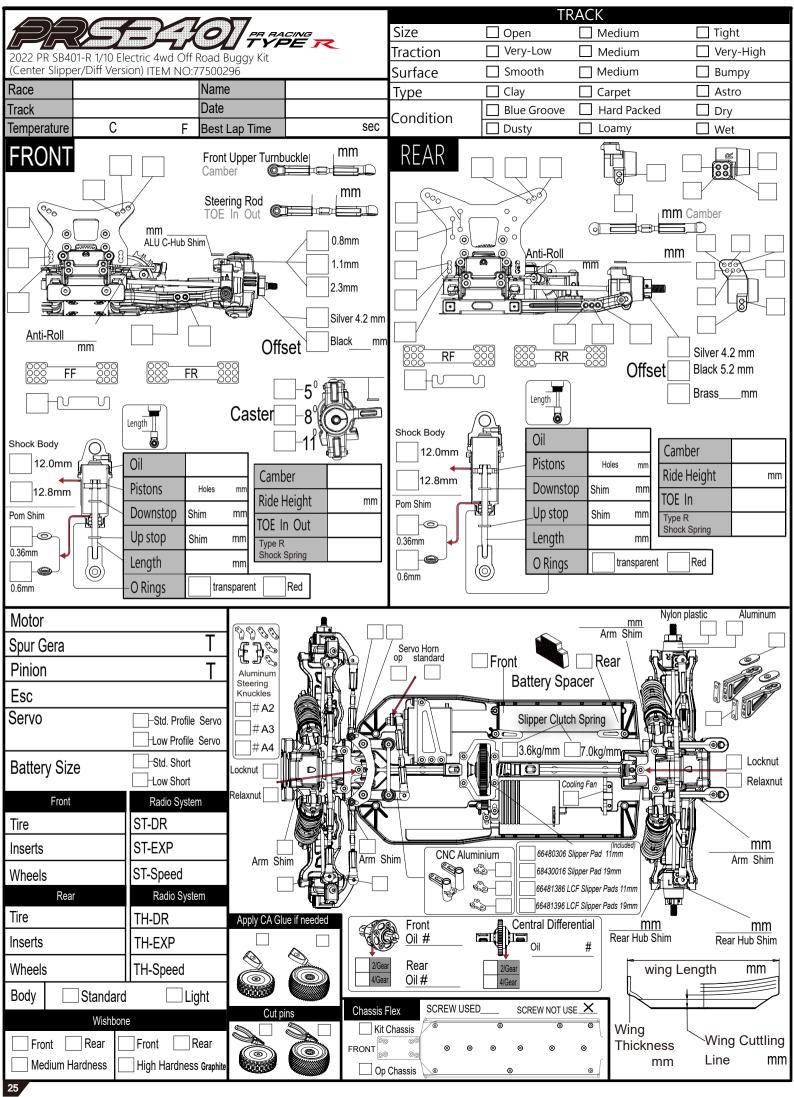








| | | | I WI I YPE J |
|--|---|--|--|
| 66402697 | 66401726 | 66400286 | 68481076 |
| Wing (1.5mm) 1PCS | Wing (1.2mm) 1PCS | Wing (1.0mm) 1PCS | R- Body 0.8mm |
| 81430106 81430106 1Set Front Rear Steel Shock Stand off Set | 66402256 1PCS Servo Saver Post | 66402266 1PCS Servo Saver Nut | 68480526 1PCS Servo Saver Spring |
| 66481256 CNC Aluminium Solution 1 | 90440010 P P P P P P P P P P P P P P P P P P P | 68480976 1PR Aluminum 11 Degree SB401 Front Spindle Carrier R-L | 77480160 Î Î Î Steering Steering Knuckles 1PR |
| 68481016 Aluminum 1PCS | 71530016 Type R Front Shock Spring Set | 71530026 MMMM 10 pr Type R Front Shock Spring Set | 77510020 FR Suspension Mount -2mm narrower |
| 77510010 | 17430126 | 17430146 | 1pcs 68430090 |
| FF Suspension Mount -2mm narrower 1PCS | (12mm Shock Piston)2x1.6mm 2PCS | PR Machined Shock Pistons id 12mm Conical (1.6mm x2 Hole) 2PCS | Aluminum Servo Horn |
| 77500076 Graphite Front set Hard 2PCS | 77500336 Graphite Front set Hard 2PCS | 66402346 CNC Rear Hub -SB401 R Aluminum 1Set | 85430016 Aluminum Wing Mount Washer 2PCS |
| 55430076 Shock Seal and Cartridge Set © © © 8psc CNC POM | 31430016 PR P3 Shock O-Rings(Red) | 77480136 8 8 8 8 9 9 9 9 Sway Bar Set | |
| | | | |
| | | | |



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Pinion Spur Gear

| 66480986 | PR Racing 48P Pinion (3.17mm ID) | 66481576 | PR Racing 48P Pinion (3.17mm ID) |
|----------|----------------------------------|----------|----------------------------------|
| | (18T)*1pcs | | (26T)*1pcs |
| 66480996 | PR Racing 48P Pinion (3.17mm ID) | 66481586 | PR Racing 48P Pinion (3.17mm ID) |
| | (19T)*1pcs | 00481380 | (27T)*1pcs |
| 66481006 | PR Racing 48P Pinion (3.17mm ID) | 66481596 | PR Racing 48P Pinion (3.17mm ID) |
| | (20T)*1pcs | 00481390 | (28T)*1pcs |
| 66400556 | PR Racing 48P Pinion (3.17mm ID) | 66481606 | PR Racing 48P Pinion (3.17mm ID) |
| | (21T)*1pcs | 00461000 | (29T)*1pcs |
| 66480096 | PR Racing 48P Pinion (3.17mm ID) | 66481616 | PR Racing 48P Pinion (3.17mm ID) |
| | (22T)*1pcs | 00481010 | (30T)*1pcs |
| 66480106 | PR Racing 48P Pinion (3.17mm ID) | 66481626 | PR Racing 48P Pinion (3.17mm ID) |
| | (23T)*1pcs | 00461020 | (31T)*1pcs |
| 66480116 | PR Racing 48P Pinion (3.17mm ID) | 66481636 | PR Racing 48P Pinion (3.17mm ID) |
| | (24T)*1pcs | 00481030 | (32T)*1pcs |
| 66481566 | PR Racing 48P Pinion (3.17mm ID) | 66491646 | PR Racing 48P Pinion (3.17mm ID) |
| | (25T)*1pcs | 66481646 | (33T)*1pcs |

| 68000100 | 73T Spur Gear (For SB401)*1pcs |
|----------|--------------------------------|
| 68400196 | 75T Spur Gear (For SB401)*1pcs |
| 68400206 | 77T Spur Gear (For SB401)*1pcs |
| 68400216 | 81T Spur Gear (For SB401)*1pcs |

| | |
|------|------|
| | |
| | |



2022 PR SB401-R 1/10 Electric 4wd Off Road Buggy Kit Lightweight Edition (Center Slipper/Diff Version)





