

RRP RX4E INSTALLATION GUIDE



RRP
RUBRIX RACING PRODUCTS
RX4EVO
#RRP-01RX4E



RX4EVO



Thank you for your purchase. If you have any questions regarding the assembly of this kit, or would like to find out more about any of our products, please email us at rubrixracing@outlook.com or visit www.RubrixRC.com

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1. CHASSIS – BAG A

BAG A contains the chassis, lipo & servo mount parts, motor mount, and belt tensioner set.



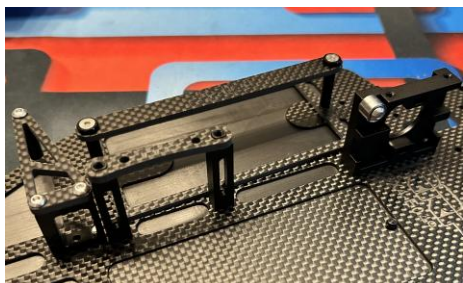
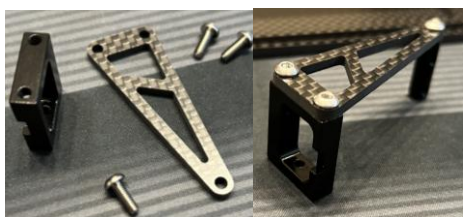
4. BELT TENSIONER

Both the motor mount & belt tensioner come with individual bags holding the bearings and corresponding hardware.



7. ELECTRONICS MOUNTING

BAG A holds all screws to attach the electronic mounting hardware for the chassis. Use 3x8mm flat head screws to attach to the chassis.



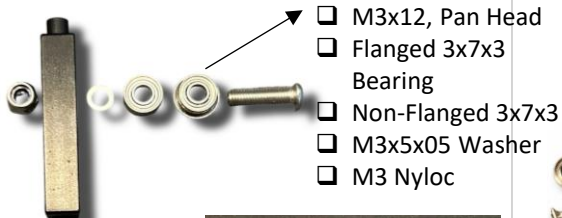
2. BAG A LIPO TRAY & SERVO MOUNT

Open **BAG A** and obtain the lipo, servo, & electronics plate. Both items can be attached to the chassis as a first step.



5. TENSIONER ASSEMBLY

Place the nut in the recessed side assembly. Insert flanged 3x7x3 bearing through screw (Flange facing outward), then non-flanged bearing, then 1 x 0.5mm washer.



Note: Set height as required once assembled.



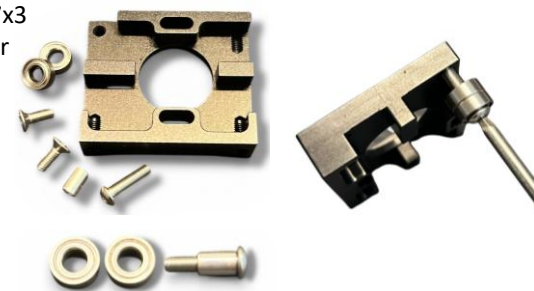
3. BAG A TENSIONER & MOTOR MOUNT

Open **BAG A** and obtain both the motor mount and belt tensioners. Both items will attach to the chassis next.



6. MOTOR MOUNT ASSEMBLY

4X8X3 bearings x 2 will be used to apply tension to the front belt. 1 x M3x10mm screw will pass-through the sleeve and secure the bearings to the motor mount.



8. FRONT DIFFERENTIAL – BAG B

BAG B holds the front differential build components. Unbag all items carefully and set aside in preparation for assembly.



9. REAR DIFFERENTIAL – BAG C

Rear pulley comes with 2 flanges that will need to be glued and let set to dry prior to the assembly.



DIFFERENTIAL ASSEMBLY



10. DIFFERENTIAL COMPONENTS
Needed for Assembly: 2 x 33T pulleys are included. Narrow (Front) & Wide (Rear), 4 x outdrive halves, 2 x M2 screws (Bent tips), 4 x diff. rings, thrust bearings, 3/32 balls, 2 x lock washers, 4 x 4x8x3 bearings, and grease.



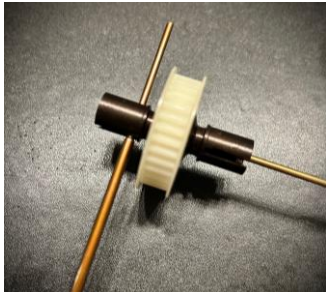
11. REAR OUTDRIVES
Insert 12 x 3/32 ball bearings in the rear wide 33T pulley. Insert 4x8x3 bearing inside of pulley. Insert (1) one 4x8x3 bearing through none threaded outdrive side.



12. REAR: APPLY GREASE
Gently apply differential grease to cover the 3/32 balls on both sides of the 33T. Remove any excess after application.



13. REAR: OUTDRIVE ASSEMBLY
Insert none-shallow side of the pulley through the threaded outdrive half as shown. Pass M2 screw through lock washer and thrust bearings (3 pcs). Bearing ring in the middle as shown. Note: Apply a small amount of thread lock to the bent tip of M2.



14. TIGHTENING DIFFERENTIAL
Insert 1/16" HEX drive through screw placement side of outdrive. Insert narrow hex drive on shaft opening (crossways) to secure outdrive from spinning. Tighten screw carefully until it reaches a firm stop. Test and adjust as needed ¼ turn at a time.



15. FRONT: OUTDRIVES
Insert 12 x 3/32 ball bearings in the front narrow 33T pulley. Apply 4x8x3 bearing inside the pulley. Insert 4x8x3 bearing through none threaded outdrive side. Apply grease throughout.

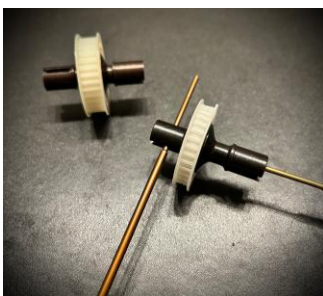


16. FRONT: OUTDRIVE ASSEMBLY
Insert shallow side of the pulley through the short (left side) threaded outdrive half as shown. Pass the M2 screw through the lock washer and thrust bearings (3 pcs). Bearing ring in the middle as shown.



17. FRONT: SECURING DIFFERENTIAL
Insert a 1/16" HEX drive through the screw placement side of the outdrive.

FRONT OUTDRIVE ADJUSTMENT



18. TIGHTENING DIFFERENTIAL
Insert narrow hex drive on shaft opening (crossways) to secure outdrive from spinning. Tighten carefully until screw reaches a desired level of tightness. Test and adjust as needed.



19. COMPLETE DIFFERENTIALS
Front and rear outdrives are ready for installation. Set aside for later installation.

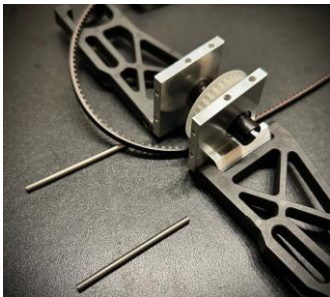


20. FRONT-END ASSEMBLY
Open **BAG B** and obtain front aluminum bulkheads. Obtain 2 x 2.5mm titanium hinge pins, front tower, 2 x 10X15X4 bearings, and Front arms. All items can be found in BAG B.



21. FRONT BULKHEAD
Insert 10X15X4 bearings on each side of the bulkhead. Shim long outdrive side as needed with supplied M10x14x0.3mm shims. Install front belt and place in 33T pulley. Attach both sides of bulkhead as shown.

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22. FRONT HINGE PINS

2.5mm titanium hinge pins are inserted through the arms and front bulkhead pieces. Applying only 2 x 2.6mm hinge pin retaining screws on the rear of the arms.



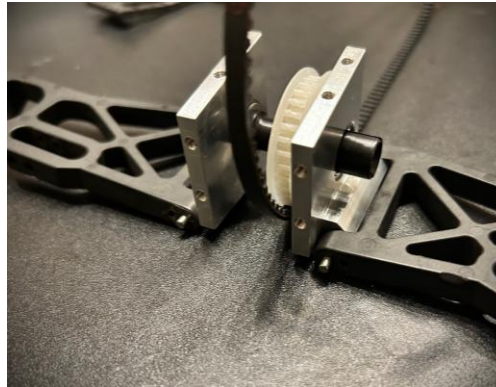
25. FRONT SHOCK TOWER

Line up the front tower with the 2 x 2.5mm hinge pins with both bottom outside holes of the tower. Line up the front tower inner holes with the bulkhead.



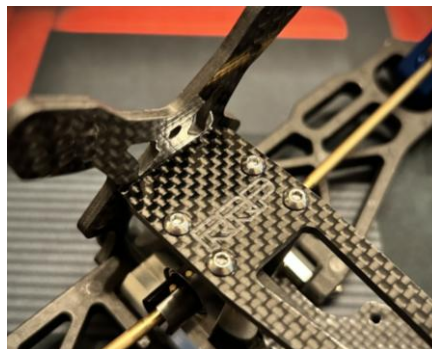
28. BULKHEAD SCREWS

The chassis will attach to the front bulkhead assembly with 4 x 3x10mm screws. It is important to line up all 4 holes, with the car resting upside down on a flat surface.



23. ARM INSTALLATION

2.5mm hinge pins will be inserted and will stick out towards the front. The front shock tower will have 2 hinge pin retaining slots to go through the hinge pins.



26. TOWER AND TOP DECK POSITION

Install 4 x 3x8mm screws on the front tower and fasten on front bulkhead. The result above will show the top deck against the front tower and edges flush with each respective resting surface. **You may detach the top deck after this step.**



29. FRONT BUMPER

Place the front bumper over the chassis so that it lines up with the 4 holes as shown. Set the 3x10mm flat head screws in each hole, and screw in a cross-sectional pattern initially until reaching firmness. If resistance is found, please reposition and re-attempt.



24. ALIGNMENT

It is important to attach the front shock tower to the front bulkhead. This allows the bottom holes of the bulkhead to line up properly with the chassis. This also acts as a guiding method to line the front end.



27. CHASSIS FRONT END

Place the assembled front-end assembly on the chassis. It should rest on the chassis kick-up section as shown.



30. FRONT HUB ASSEMBLY

BAG B: Obtain hub carriers & hardware. Place both front L & R hubs where screw thread ends face the rear of the car as shown. Obtain front 2mm hinge pin and insert the supplied plastic shim spacers on the front side: 1mm & 0.3mm spacer per side. Slide the hinge pin through until reaching the other end.



31. SET SCREWS

Install 2 x 2.6mm set screws on both sides of the outer arms to secure the hinge pins.



34. C-HUB & WHEEL HUBS

A hub installation should be accomplished with 4 x 3x8mm screws that will be inserted through the king pin sleeves. Do not overtighten and ensure spindles spin freely. Use the roll pins provided and insert them through the CVD axles holes.



37. TURNBUCKLES BAG C & E

Both BAG C & E will contain the camber bracing turnbuckles. Open BAG C to start with the front camber links.



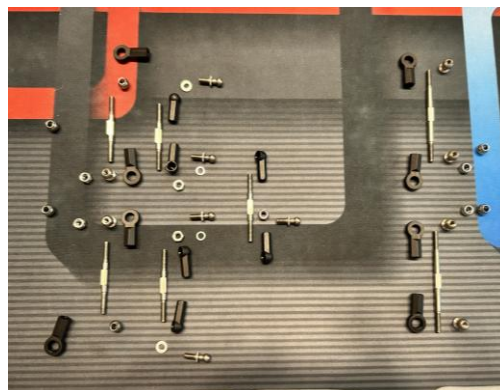
32. BAG B: BEARING INSTALLATION

Obtain 4 x 6X10X3 bearings and insert them as shown. In this section of the installation, please obtain 2 x front CVDs and 4 king pin sleeves as shown.



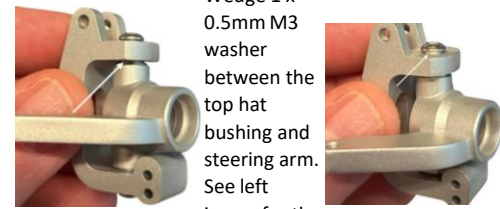
35. SECURING WHEEL HUBS

Install nyloc nuts to secure the wheel hubs.



38. PREPARING FOR TIE ROD INSTALLS

Turnbuckles are bagged separately and following each car section. The needed hardware is also included and bagged together for easier assembly. Shown above is a layout of all turnbuckles to assist in all part matching before assembly.

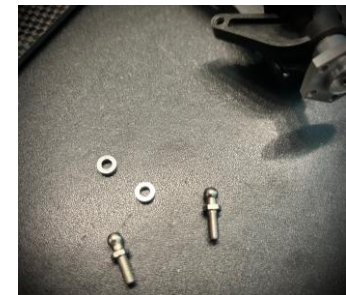


Wedge 1 x 0.5mm M3 washer between the top hat bushing and steering arm. See left image for the location.



33. FRONT WHEEL HUBS

Install 2 front CVD. Slide front spindle through the C-Hub. Obtain the wider offset wheel hubs (12.5mm) for the front hub installation.



36. 4.3 BALL STUD INSTALL

Obtain 2 x 2mm aluminum spacers and 2 x 4.3 ball studs. These will be attached to the steering arms.



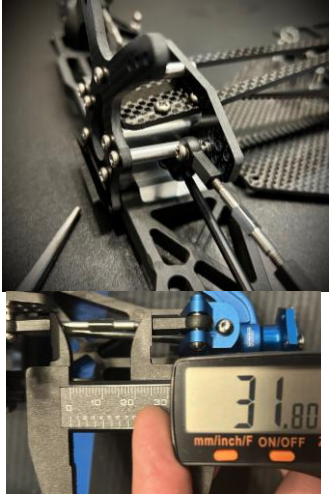
39. FRONT CAMBER LINK

Obtain 3 x front tower standoffs, 4 x open ball ends, 2 x 42mm turnbuckles, 2 x short 5.8 studs, 2 x 5.8 long ball studs, 6 x 3x6mm pan head screws, and 2 x 3x14mm pan head screws.

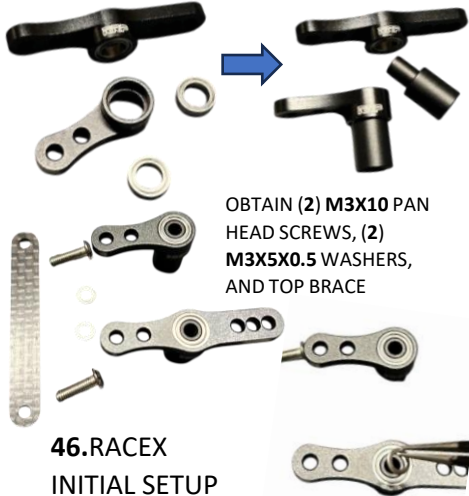
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40. SHOCK STANDOFFS
Inside camber plate holes are used for the installation. Use 3 x 3x6mm pan head screws.



43. CAMBER INSTALL
Slide camber plate on top of the top deck front piece. Attach to the front tower with 3 x 3x8mm pan head screws. Estimated turnbuckle length 31.80mm.

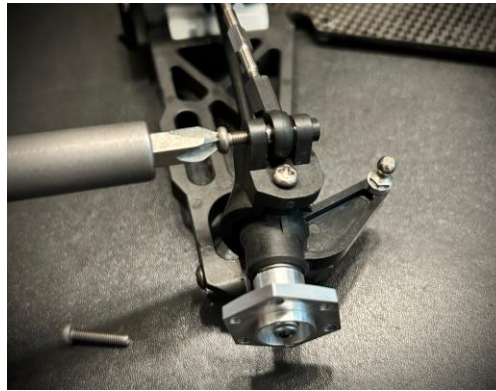


46. RACEX INITIAL SETUP

Place (1) M3x5x0.5 washer on top of each bearing as shown.



41. CAMBER LINK BALL CUPS
Insert 2 x 5.8mm short ball studs through 2 x plastic ends as shown. Insert through larger plastic opening



44. C-HUB CAMBER LINK INSTALL
Attach the camber link to C-Hub with 2 x 3x14mm pan head screws.



47. STEERING BRACES
Obtain (1) cross link steering brace, nylocs, (2) M3x12 pan head screws, (2) 3X6X2.5 flanged bearings, (2) M3x6x0.5 washers, and (2) M3x5x0.5 washers



42. INNER LINK INSTALL
Obtain 2 x 3x14mm pan head screws and 2 x m3 nuts.



45. STEERING ASSEMBLY
Obtain all steering components and hardware as shown. All steering components are in **BAG C**.



48. BELL CRANK LINK
Apply M3x5x0.5 washers through each screw. Repeat steps on both sides.



See RRP RaceX Alloy Supplement Manual For More Details



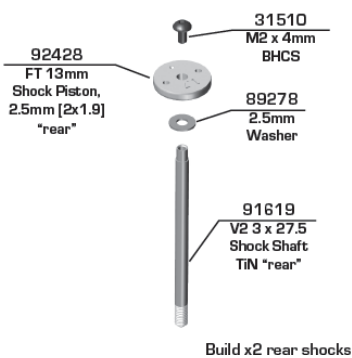
49. STEERING INSTALL

Attach the pre-assembled steering assembly utilizing the supplied 35mm flat head screw and 3x6mm flat head screw.

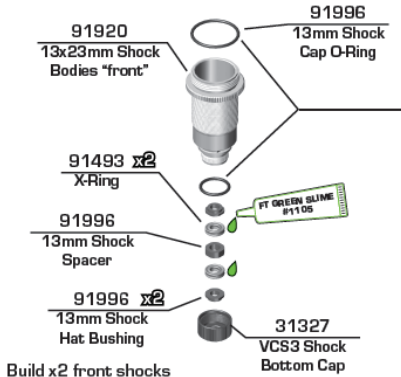


52. SHOCK SET REAR 27.5MM

Team Associated 27.5mm ASC91995



55. SHOCK BODIES



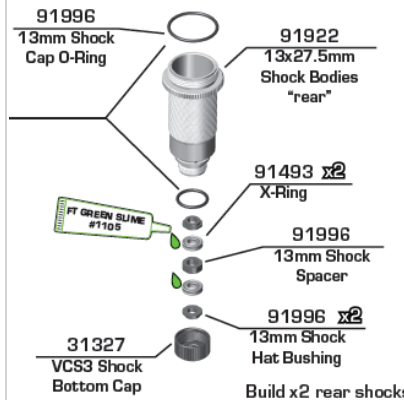
50. STEERING LINK TURNBUCKLES

Estimated length for steering assembly. All components to assemble the turnbuckles is in **BAG D**.



53. SHOCK SET FROM 23MM

Team Associated 23mm ASC91994

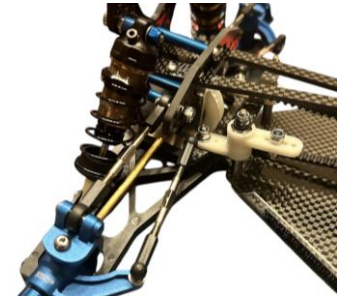
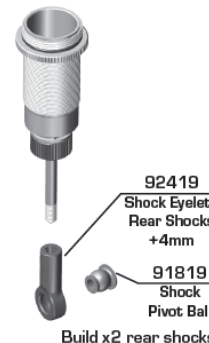
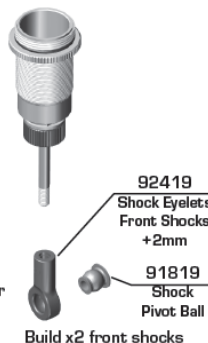
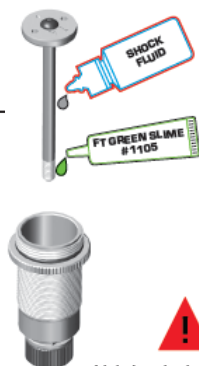


!
Lightly rub shock oil on the O-ring before installation!



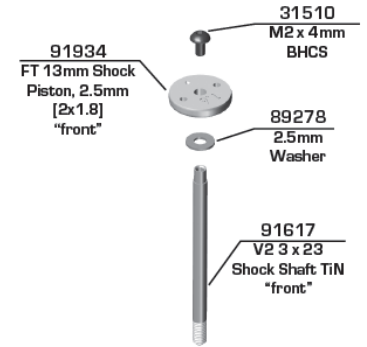
Coating the O-rings with green slime (#1105) helps seal & reduce O-ring swell! Green slime not included in kit!

There are 3 lengths of shock eyelet in the kit. Pay attention to length when building as these affect your droop and uptravel.



51. STEERING LINK

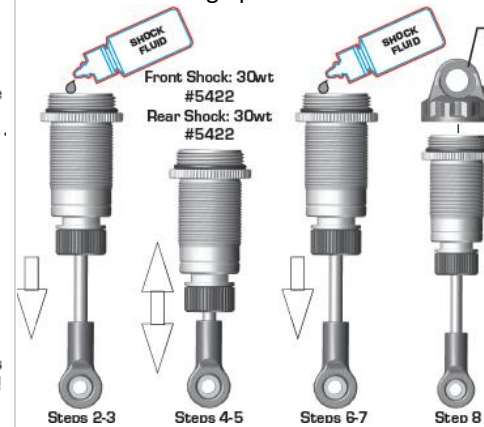
Snap both sides of the steering ball cups into place. Adjust steering toe angle as needed.



Build x2 front shocks

54. FRONT SHOCK ASSEMBLY

Mount the shock pistons with the number facing up



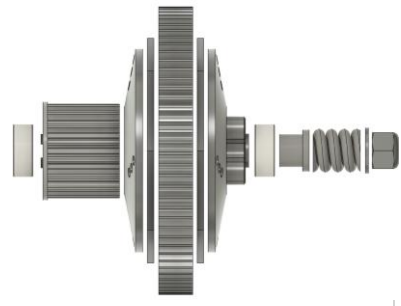
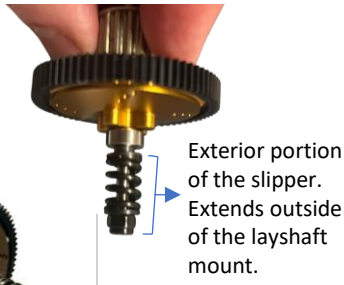
56. SHOCK BLEEDING STEPS:

- Before assembly, get each bleed screw and thread it 1-2 turns into the shock cap, then remove the screw. This will make it easier when you are bleeding your shocks.
- Pull shock shaft down.
- Fill shock body 3/4 full with silicone shock fluid.
- Slowly move the shock shaft up and down to remove air from under the piston.
- Wait for bubbles to come to surface.
- Fill shock body to top with silicone shock fluid.
- Place a drop of oil in the cap and on cap threads.
- Install cap (without bleed screw) and tighten completely.
- Slowly compress shaft all the way to bleed excess silicone shock fluid out the hole in the cap (use rag around shock to catch excess fluid).
- Install M2x4mm button head screw until snug while shaft is fully compressed.

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57. RRP V3 SLIPPER BAG C contains the slipper set including 2 pressure plates, main shaft, slipper pads, 1 x nyloc, Spring with bushings & spur gear..



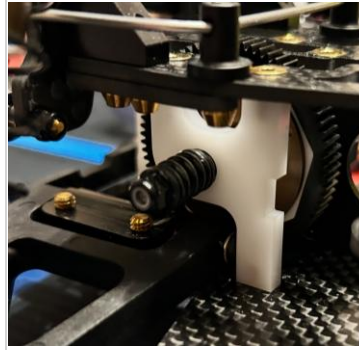
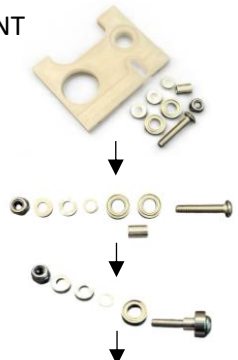
58. SLIPPER DIAGRAM
The above diagram shows the installation order of parts when completing the slipper clutch installation. Additional instructions included in **BAG C**



59. FRONT BELT
Slide the front belt on to the belt pulley. Carefully move the belt through the motor mount belt slots.

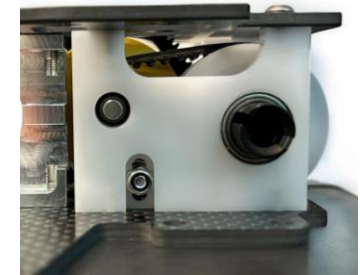
60. REAR LEFT MOUNT

Obtain the rear left delrin bulkhead piece. Attach 1 x 10X15X4 bearing (diff.) and 1 x 4X8X2 (layshaft) and attach to the bulkhead piece. Slide differential outdrive through bearing. Slide layshaft through bearing.



61. REAR RIGHT MOUNTS

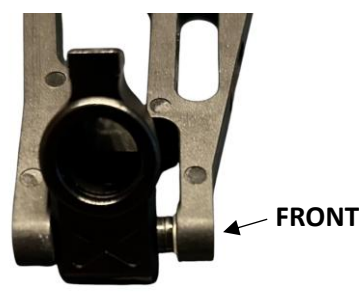
Obtain the rear right side differential mount and layshaft mount delrin pieces. Attach both 10X15X4 and 4X8X2 accordingly.



62. REAR BULKHEAD ATTACH
Fasten all 3 delrin bulkhead pieces to the chassis. Insert supplied 3x8mm flat head screws through the underside of the chassis and tighten accordingly.

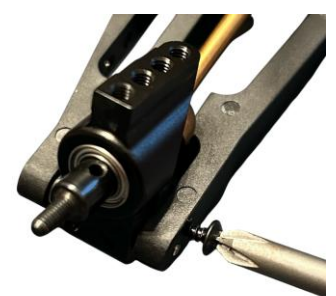


63. REAR END ASSEMBLY
Unbag all rear end components as shown. 2 x Arms, 4 x 6X10X3 bearings, 2 x rear hinge pins, 2 x rear hubs, and 4 plastic spacers per side: 2 x 1mm & 2 x 0.3mm = 2.6mm total.



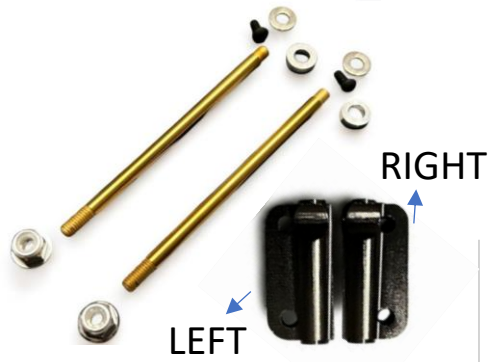
64. REAR HUB ATTACH

Insert the 6X10X3 bearings into the hub. Slide hinge pin through outer hole, inserting through hub and reaching the other side of the arm. You may insert through upper hub hole as a starting configuration. Attach 2 x 2.6mm hinge pin set screws.



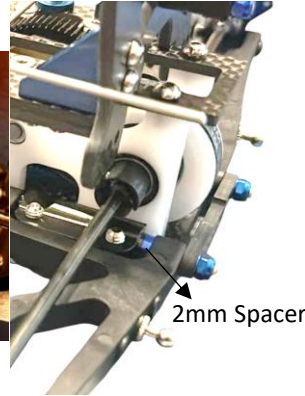
65. LEFT HUB ATTACH
Repeat the process on the right arm and complete the assembly as shown above.

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66. ERMEN HINGE PIN SET

Obtain 2 x arm mounts, 4 x 8/32 screws, 2 x rear hinge pins, and 2 x 2mm aluminum spacers.



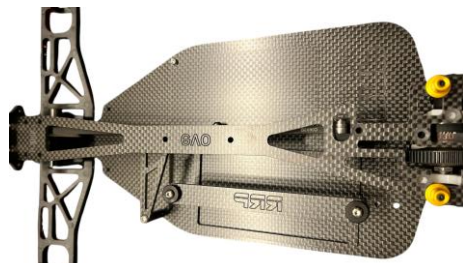
67. REAR MOUNT ASSEMBLY

Slide the 3mm hinge pins through the front of the rear arms. Apply the aluminum spacers and slide hinge pin through the arm mount until it reaches the other end of the arms.



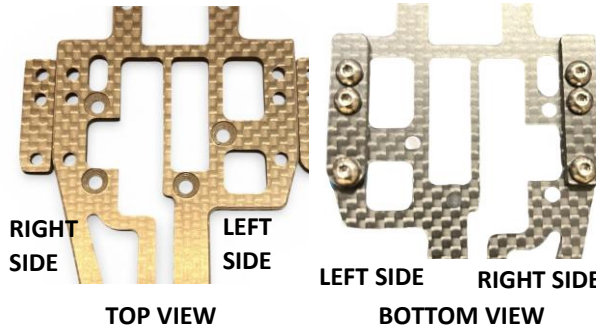
68. ARM MOUNT INSTALL

Attach the assembled rear arm mount to the chassis utilizing the supplied 8/32 1/2 inch screws as shown above.



69. FRONT TOP DECK

Screw the top deck starting from the front using 4 x 3x8mm pan head screw. Do not screw all the way in. Front tower screws may have to be loosen slightly to allow proper top deck hole alignment.



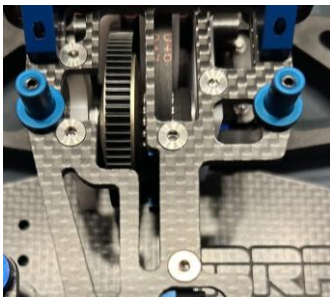
70. REAR TOP SUPPORT BRACES

Obtain the top deck & 2 x carbon braces from **BAG D**. Please review the above brace positioning. It is important for them to rest on the correct side for bulkhead clearance purposes.



71. REAR TOP DECK

Pass through 2 x 3x8mm screws on each side of the carbon brackets and on to the top deck. Finally, these will attach to the alloy support brackets as shown above. Use 1 x 3x10mm screw will attach to the sway bar mount.



72. TOP DECK FASTENING

Place the rear top deck over the rear bulkhead where the holes line up with the top deck. Attach 3x8mm flat head screws on to the motor mount. Finally, attach 3 x 3x8mm flat had screws, and 2 x 3x8mm pan head screws to the bulkhead rear.



73. REAR SUSPENSION ARM BRACE

Attach the rear suspension arm carbon brace. 3mm hinge pins will pass through the outside holes of the brace tightly. Push the brace gently until in place.



ANTI-ROLL BAR

Obtain 2 x sway bar mounts, 2 x M3x10 screws, 2 x plastic washers, and 2 x grub screws. Assemble as shown and attach to top deck



74. REAR TOWER INSTALL

Attach the rear tower to the support brackets using 4 x 3x8mm pan head screws. Apply screws one at a time, and in a cross pattern without tightening completely until all screws are in.

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75. REAR CVD SET

BAG E: Unbag 2 x 79.5mm CVDs, 2 x rear wheel adapters, 2 x roll pins, and 2 x nyloc nuts.



76. REAR CVD INSTALL

Inset both rear CVDs through the rear hubs as shown above. Apply black grease accordingly to CVD joint and where metal touches each other.



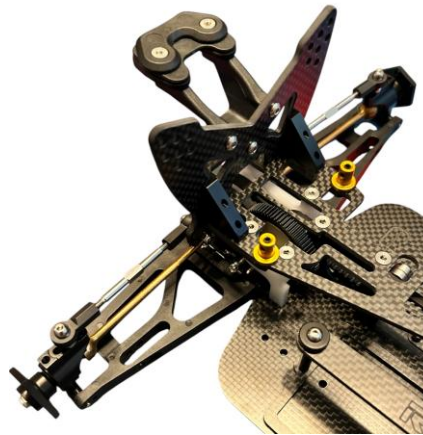
77. REAR TURNBUCKLES

Unbag 2 x 52mm turnbuckles, 4 x open ball ends, and 4 x 5.8mm long studs.



78. REAR CAMBER LINKS

Attach open ball ends and install ball studs as shown. Obtain the supplied 2 x m3x10 & 2 x m3 x16 pan head screws and nyloc nuts.



79. REAR SHOCK MOUNTING

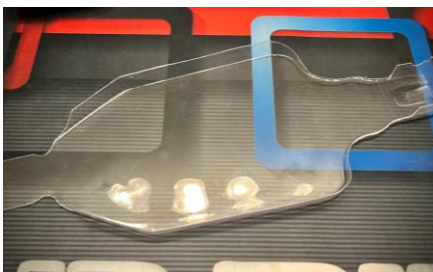
Install 2 x 3x20mm socket head cap screws, 2 x 12mm shock tower standoffs to secure the socket cap screws against the tower. Install the shocks & secure with screws. All shock contents and hardware are in the shock assembly bag



80. BUILD COMPLETION

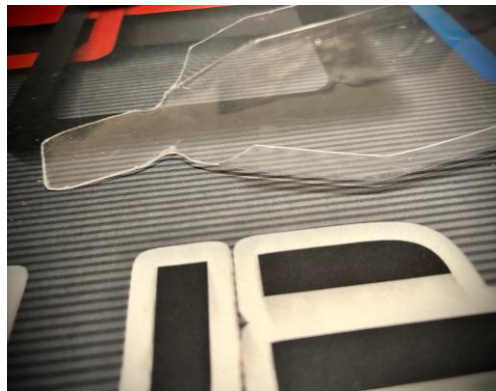
Assembly of the RX4E should have reached completion at this stage.

Remaining items: Wing assembly and under tray installation.



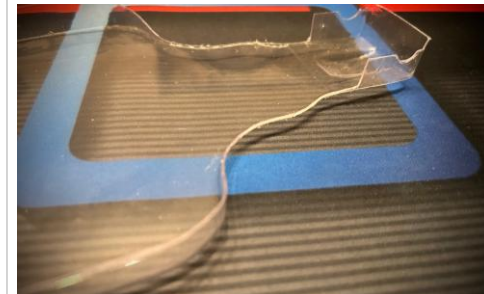
81. UNDER TRAY

Trim along the indicated cut lines. Position the tray so the rear edge aligns with the rear chassis. Mark the 4 front chassis holes only after confirming proper alignment.



82. FRONT NOSE

Carefully trim the front nose of the under tray. Fit it over the front section of the carbon chassis to verify sufficient clearance from the suspension arms.



83. REAR GEAR COVER

Follow the trim line on the rear gear cover. It is recommended to cut the cover out separately and install it later onto the rear differential gearbox.

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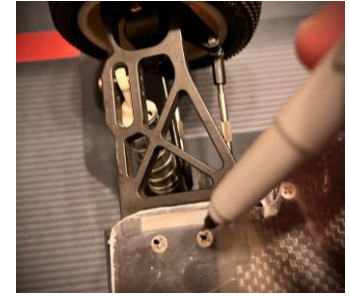
84. COMPLETED UNDER TRAY

Once cuts are made, bend the rear gear cover box following the bend line. You may place a flat edge object (like a ruler), to hold down the under tray while bending.



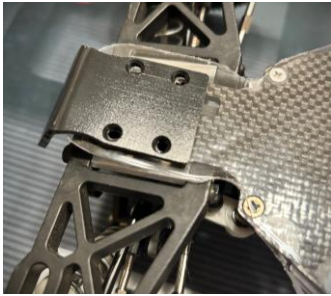
85. UNDER TRAY INSTALLATION

Place the under tray against the under chassis and line up according to the shape of the chassis.



86. MARKING HOLES

Mark the front bulkhead holes on the under tray by laying the under tray over the screws.



87. FRONT BUMPER

After making the 4 x under tray holes for the bulkhead, remove the front bumper screws, lay the under tray, line up with the holes and place bumper on top. Re-install the screws.



88. WING MOUNT ASSEMBLY

Obtain 3 x wing mount plastic pieces, 20mm screw, 2 x m3x8 screws, plastic spacers, nyloc, and 2 x m3x10 screws.



89. SPACERS

Pass the m3x20 screw through the 4 x 2mm plastics spacer and on through the middle shock tower hole.



90. WING BUTTONS

Screw nyloc on the other end and tighten. Pass through 2 x m3x8 pan head screws through shock tower and attach to wing mount.



91. WING WIRE INSTALLATION

Attach bottom plastic support sitting flush with wing mount holes.



92. WING INSTALLATION

You may now place your wing over the wing buttons and make the hole markings needed for hole drilling.