

INTRODUCTION

Thank you very much for selecting this Serpent rc car and thus become a member of the ever growing worldwide Serpent racing family. Serpent started in 1980 and has been growing its product-line and fan -base ever since.

The Serpent Cobra SRX8 EVO is a state of the art 1/8 scale 4wd buggy which will give you the true Serpent racing experience. The assembly manual will guide you through all the steps to complete the car, so you can hit the track with a good base-set-up soonest. The Serpent design department succeeded to create a superbly performing car combined with eas of assembly and maintenance. The high quality standards of all parts and hardware will make racing your Serpent car a very rewarding activity!

Through our team, website and social media we will keep you up-to-date on all developments of the Serpent cars. We hope to meet you on the track and through our various media! Enjoy the drive!

Team Serpent Multiple World Champions

Instructions

Serpent's long tradition of excellence extends to the instruction manuals, and this instruction manual is no exception. The easy-to-follow layout is richly illustrated with 3D-rendered full-color images to make your building experience quick and easy. Following the instructions will result in a well-built, high-performance race-car that will soon be able to unleash its full potential at the racetrack. The kit includes bags, with bagnumbers, which refer to the same step in the manual. Open only the indicated bag(s) per step and finish that part of the assembly. Remaining parts will be needed lateron in the assembly process.

PLASTIC PARTS

The Serpent moulded parts are very durable and hard. When assembling longer screws in new composite parts, make sure to use new hex bits in your (power) tools. Pre-threading also helps to avoid screw damage.

SETUP

In certain assembly steps you need to make basic adjustments, which will give you a good initial setup for your Serpent Cobra SRX8 EVO. Fine-tuning the initial setup is an essential part of building a high-performance racecar like your Serpent Cobra SRX8 EVO.

EXPLODED NIEWS AND PARTS LIST

The exploded views and parts lists for the Serpent Cobra SRX8 EVO are presented in the Reference Guide section in the back of this manual. The exploded views show all the parts of a particular assembly step along with the Serpent part number and hotlink to the Serpent website. Partnumbers in orange indicates that this part is an optional. Optionals part names and numbers are showed below.

CUSTOMER SERVICE

Serpent has made a strong effort to make this manual as complete and clear as possible. Additional info may be published in our website: www.serpent.com or you may ask your dealer or the Serpent distributor for advice, or email Serpent direct: info@serpent.com. The Serpent Facebook, Twitter and Youtube pages give additional means of support and communications.

SAFETY

Read and take note of the 'Read this First section' before proceeding to assemble the car-kit. This car-kit is intended for persons aged 16 or older.

READ THIS FIRST!

- This is a highly technical hobby product, intended to be used in a safe racing environment. This car is capable of speeds in excess of 80 km/h or 50mph. Please follow these guidelines when building and operating this model.
- Parental guidance is required when the builder/user of this car is under 16.
- Follow the building instructions. If in doubt, contact your dealer or importer.
- Be sure to use the proper tools when assembling the car. Always exercise caution when using electric tools, knives and other sharp objects.
- Be careful when using liquids like lubrication oil, fuel or glue. Do not swallow.
- Follow the manufacturer's instruction in case you experience irritation after using the product.
- Be careful when operating the car. Stay away from any rotating parts such as wheels, gears and transmission. Stay away from motor, engine and exhaust pipe system or speedo during and immediately after use, as these parts may be very hot. We advise to use protective hand cloves.
- Only operate this car in a safe environment, like a special racing track or a closed parking lot. Avoid using this car on public roads, crowded places or near infants.
- Before operating this car, always check the mechanical status of the car. Also check that the transmitter and receiver frequencies correspond and are not used by any other racer at the same time. Check that the batteries of the transmitter and receiver- are fully charged.
- After use, always check all the mechanics of the car. We advise to clean the car immediately after use, and inspect the parts for wear or fractures. Replace when necessary. Do not use water, methanol, thinner or other solvents to clean the car.
- Empty the fuel tank (depending on model) if needed and disconnect the receiver battery.
- Store the car in a dry and heated place to avoid corrosion of metal parts.
- Avoid using this car in wet conditions as the water will cause corrosion on the metal parts and bearings and these parts will cease to function properly. If driven in the wet, ensure that all the electric equipment is waterproofed and after use, that all moving parts are dried immediately.

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Lines Description

Each step contains a variety of numbers, lines, and symbols. The numbers represent the order in which the parts should be assembled. The lines are described below.

1 2 3	Step number; the order in which you should assemble the indicated parts	
←	Length after assembly	
	Assembly path of one item into another	
	Group of items (within lines) should be assembled first	
	Direction the item should be moved	
-	Glue one item to another	
	Press/Insert one item into another	
O	Connect one item to another	
<u> </u>	Gap between two items	

ICONS DESCRIPTION

Each step contains a variety of symbols described below.



Carefull, read and check very well.



Apply a small amount of cyano glue. Use wear protection for eyes and hands.



Detail view to explain assembly or order of parts better.



Default set-up: This symbol indicates the default setup.



Grease: apply a small amount of grease to the parts shown.



Left and right parts should be assembled in the same way.



Thread lock: apply a small amount on the parts shown. Before to apply the threadlock, make sure to degrease the parts very well, as otherwise the threadlock will not work.



Silicone oil: use the indicated silicone oil for the shocks and differentials.



Parts or items not included in the kit.



Optional part, not standard in the kit.

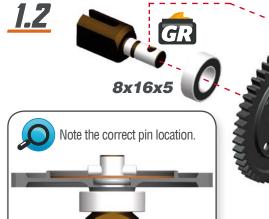
CENTER DIFF ASSEMBLY



STEP 1

CENTER DIFF BAG

M3x4 3 6x11.75x0.2 2.5x12





STEP 2

Z.1



VOLUME COMPENSATORS

When the differential gets hotter, the foam inserts will absorb the pressure of the expansion of the oil.

- 1- The supplied foam tube must be cut to size as indicated here below.
- $\mbox{\ensuremath{2\text{--}}}\mbox{\ensuremath{Penetrate}}$ them fully with same differential oil .
- 3- Insert them in the compensator holes.





2.2

Add just enough oil to cover the large gear before assembling the small satellite gears and cross pins.

Use the silicone oil supplied in the kit. For the correct cst value please check the default setupsheet.









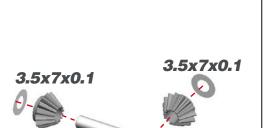
6x11.75x0.2





STEP 4

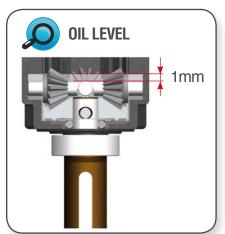






Fill the differential with silicone oil 1 mm above the crosspin, do NOT overfill. Use the silicone oil supplied in the kit. For the correct cst value please check the default setupsheet.





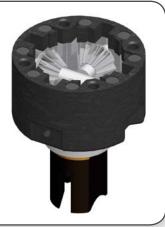


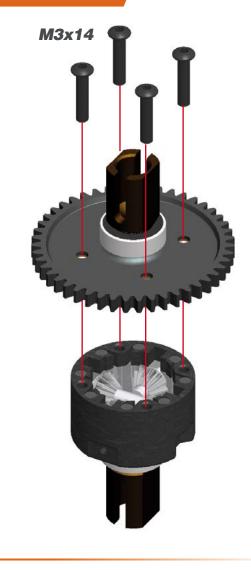
AMOUNT OF OIL IN THE DIFFS

Use a digital scale to measure the exact amount of oil in the diff.

Differential weight with volume compensators = 40.8 grams

Differential weight without volume compensators = 41.0 grams



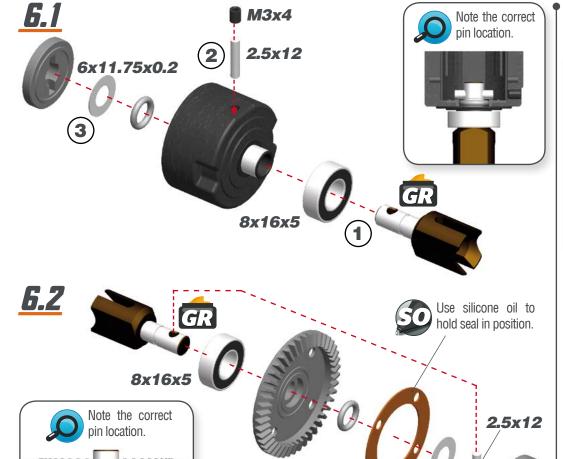








STEP 6 FR/RR DIFF BAG



STEP 7

7.1



VOLUME COMPENSATORS

When the differential gets hotter, the foam inserts will absorb the pressure of the expansion of the oil.

- 1- The supplied foam tube must be cut to size as indicated here below.
- 2- Penetrate them fully with same differential oil .
- 3- Insert them in the compensator holes.





7.2

Add just enough oil to cover the large gear before assembling the small satellite gears and cross pins.

Use the silicone oil supplied in the kit. For the correct cst value please check the default setupsheet.







6x11.75x0.2

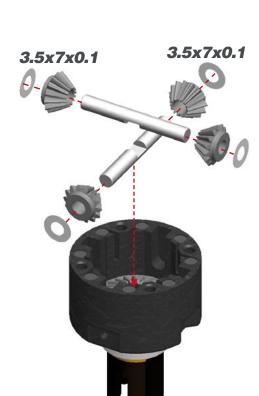








STEP 10

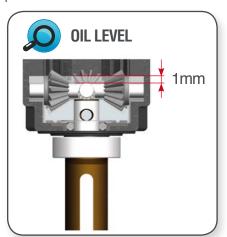


STEP 9



Fill the differential with silicone oil 1 mm above the crosspin, do NOT overfill. Use the silicone oil supplied in the kit. For the correct cst value please check the default setupsheet.







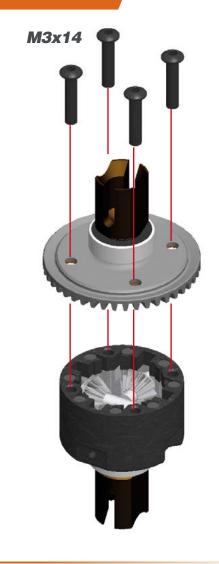
AMOUNT OF OIL IN THE DIFFS

Use a digital scale to measure the exact amount of oil in the diff.

Differential weight with volume compensators = 40.15 grams

Differential weight without volume compensators = 40.35 grams





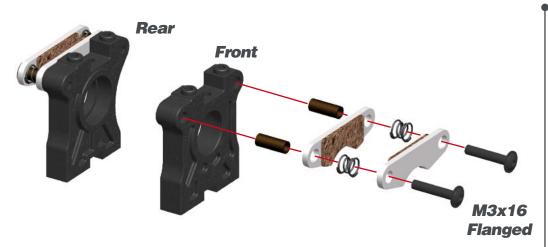


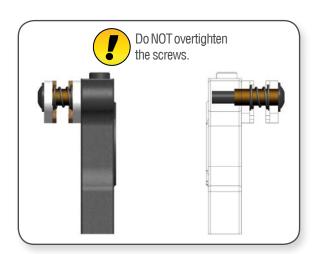


EVO FILTER SPE

STEP 11

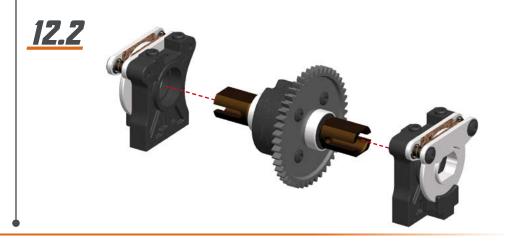
BAG 1









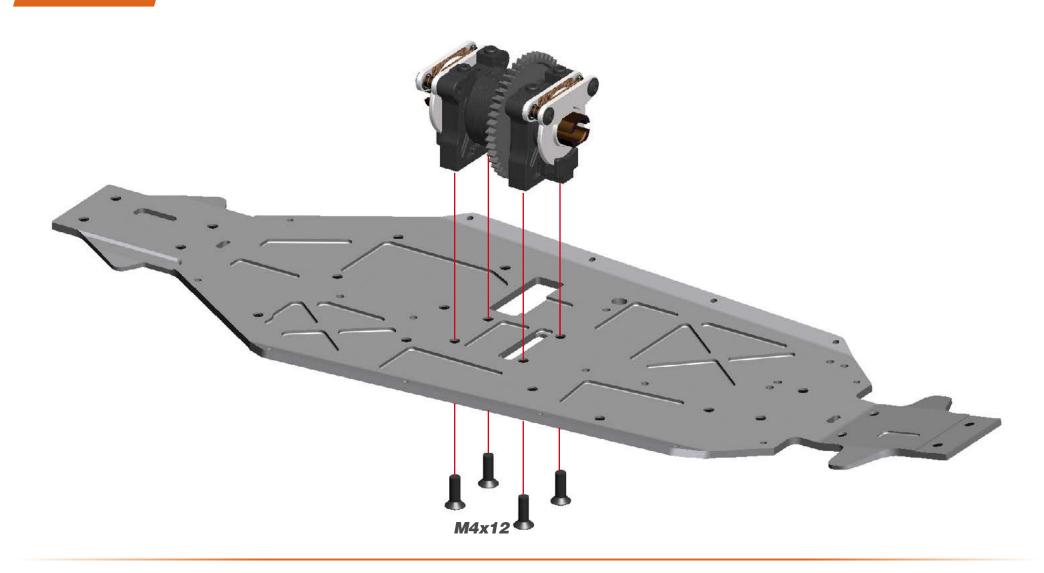








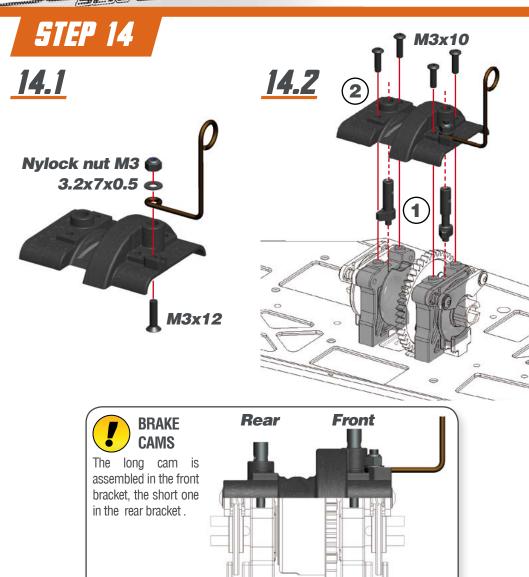


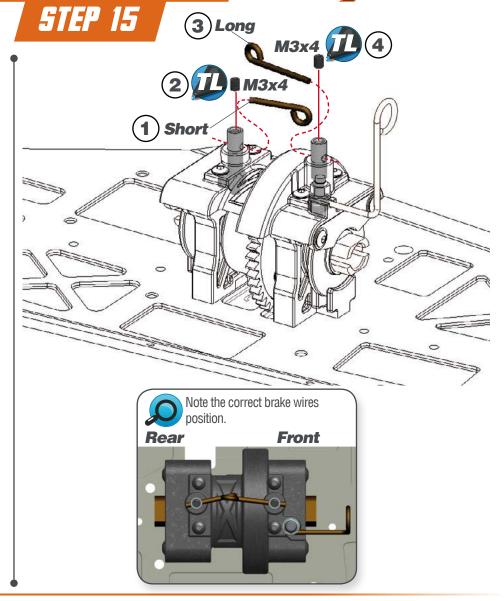


















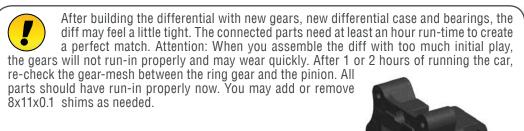


BAG 2

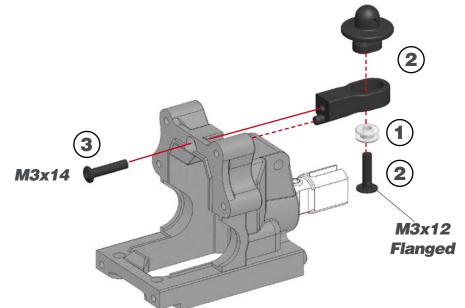


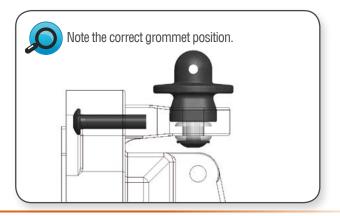






















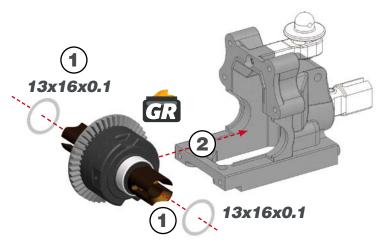




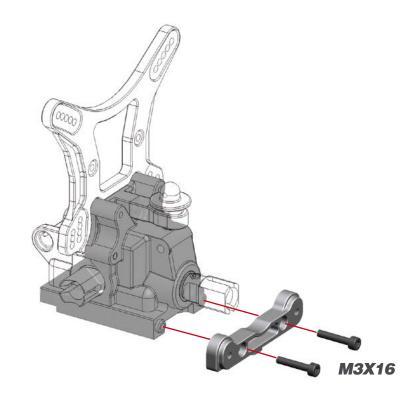


18.1

After 1 or 2 hours of running the car, re-check the gearmesh between the ring gear and the pinion. All parts should have run-in properly. You may add or remove 13x16x0.1 shims as needed.







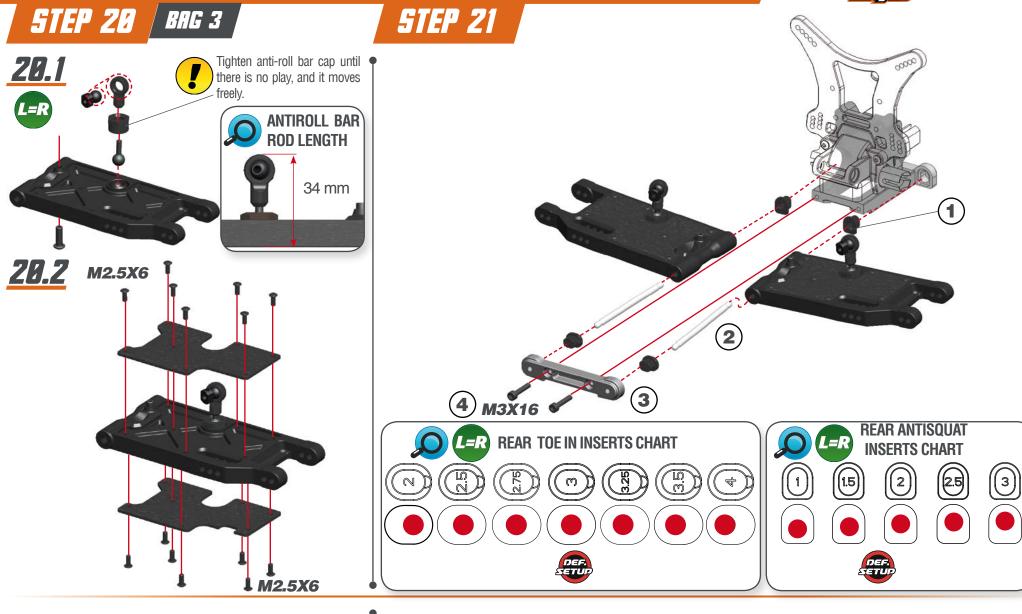




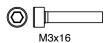








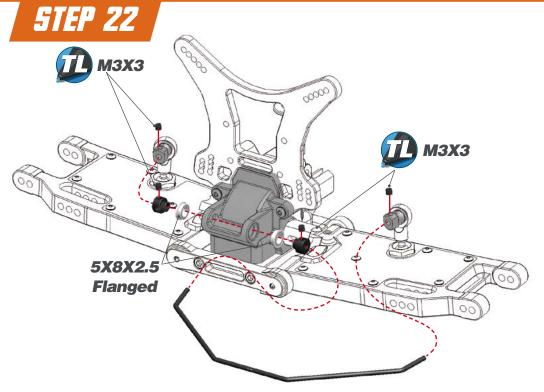


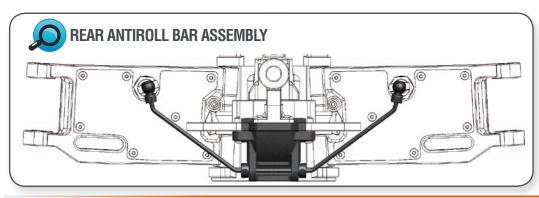


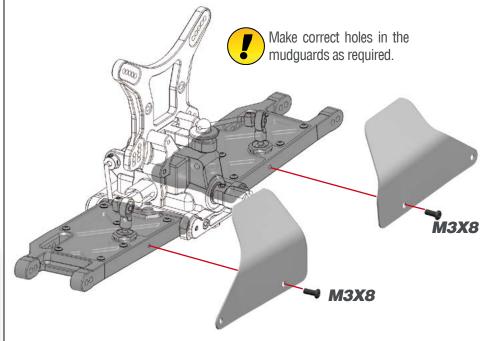




5TEP 23









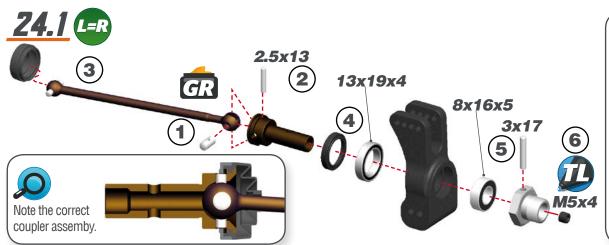




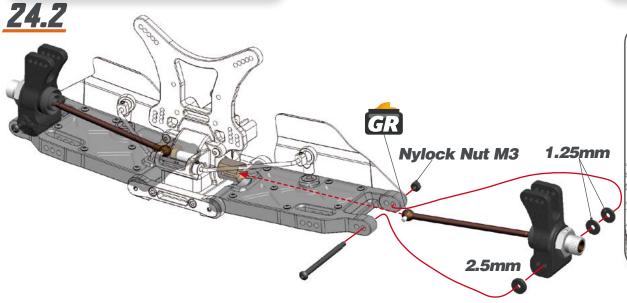




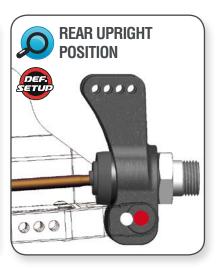
STEP 24 | BRG 4













3x17

















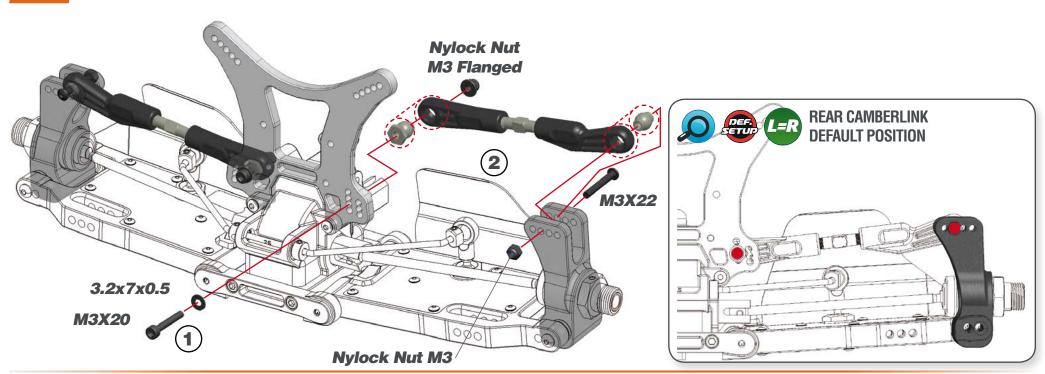
STEP 25 BAG 5







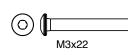
25.2









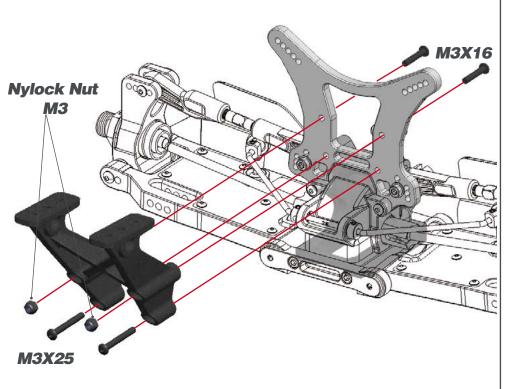


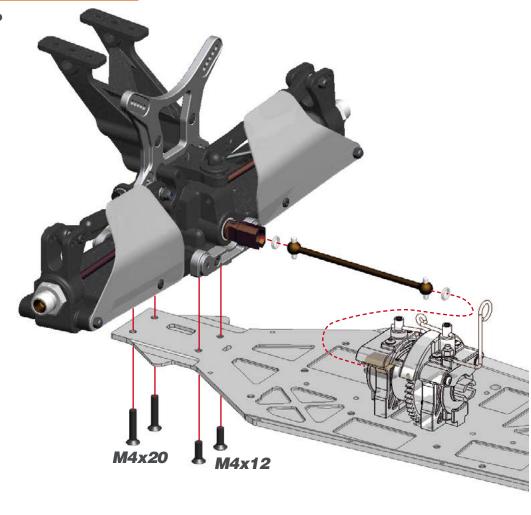








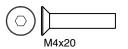














FRONT ASSEMBLY

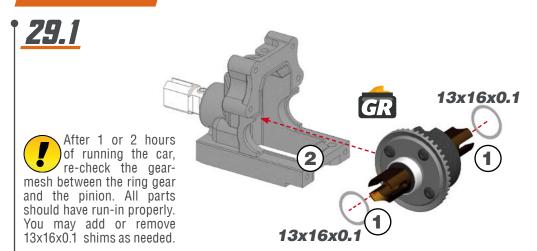
STEP 28

BAG 6

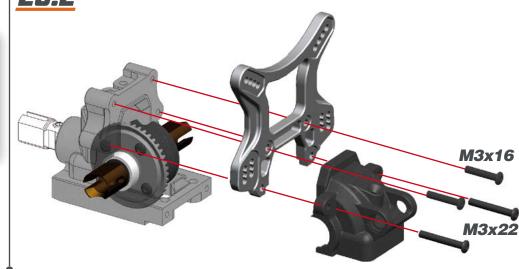


After building the differential with new gears, new differential case and bearings, the diff may feel a little tight. The connected parts need at least an hour run-time to create a perfect match. Attention: When you assemble the diff with too much initial play, the gears will not run-in properly and may wear quickly. After 1 or 2 hours of running the car, re-check the gear-mesh between the ring gear and the pinion. All parts should have run-in properly now. You may add or remove 8x11x0.1 shims as needed.

STEP 29



29.2





8x11x0.1

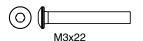








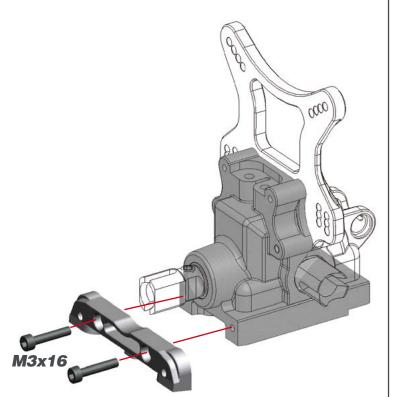


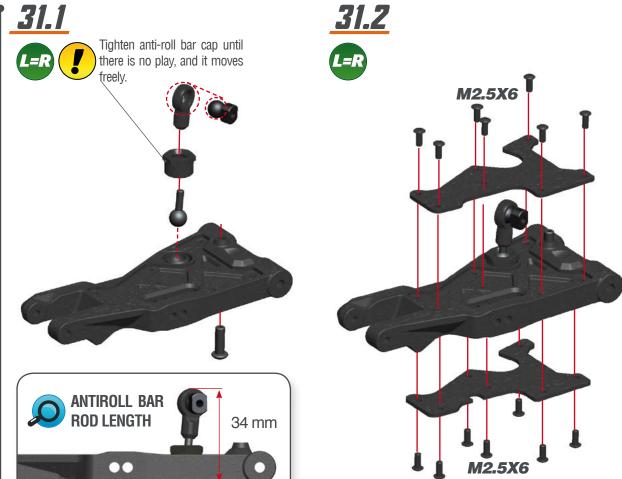






STEP 31 BAG 7



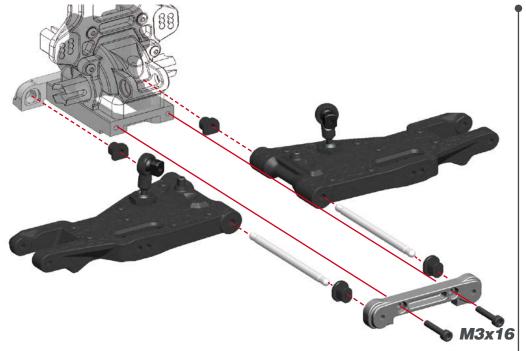


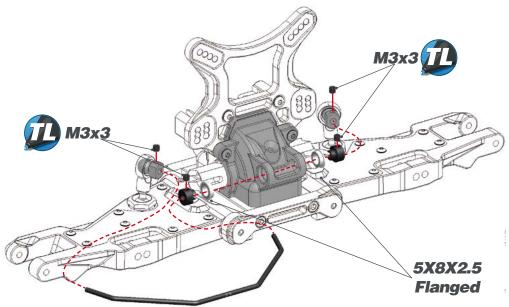


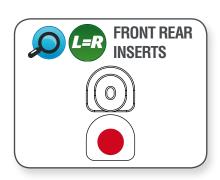


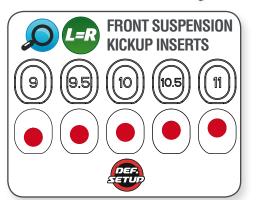


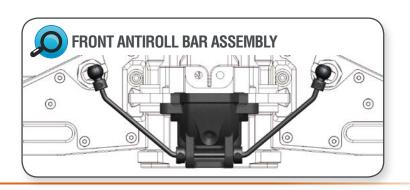


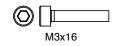


















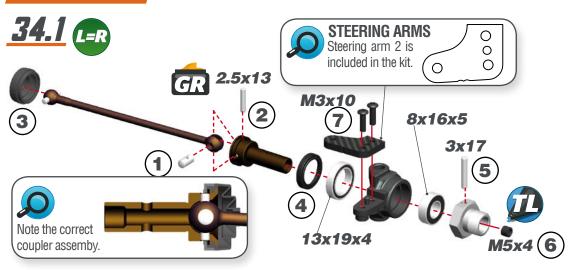
2.5x13



Nylock Nut M3

M4x6

STEP 34 BAG 8

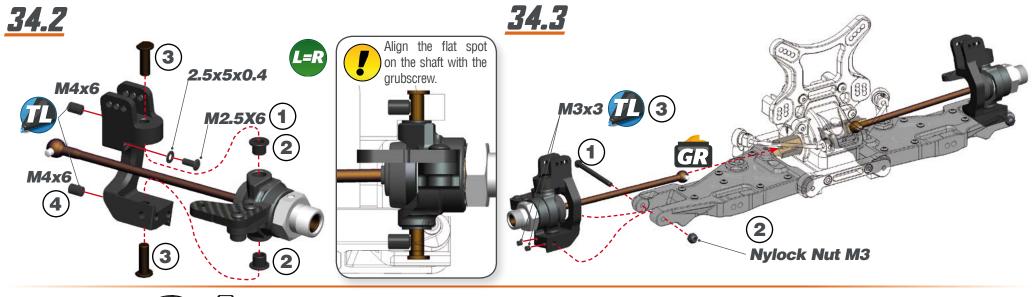




 $\bigcirc \mathbb{L}$

M2.5x6

2.5x5x0.4



3x17

8x11x0.2

8x11x0.1

8x16x5

M5x4

M3x10





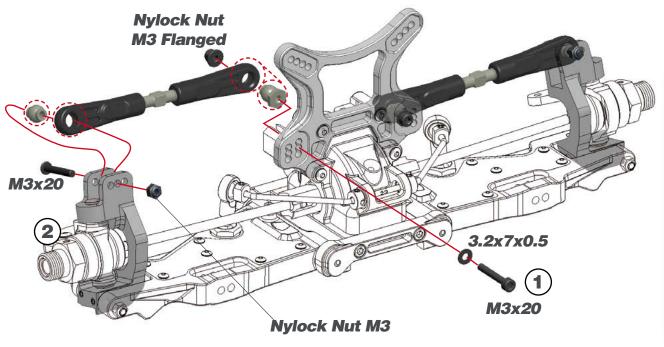
STEP 35 BRG 9

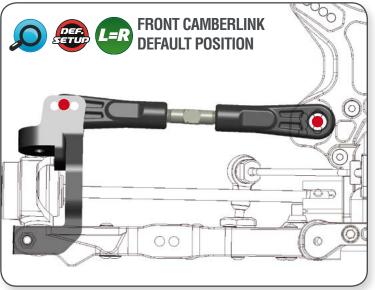


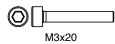




35.2

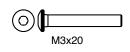








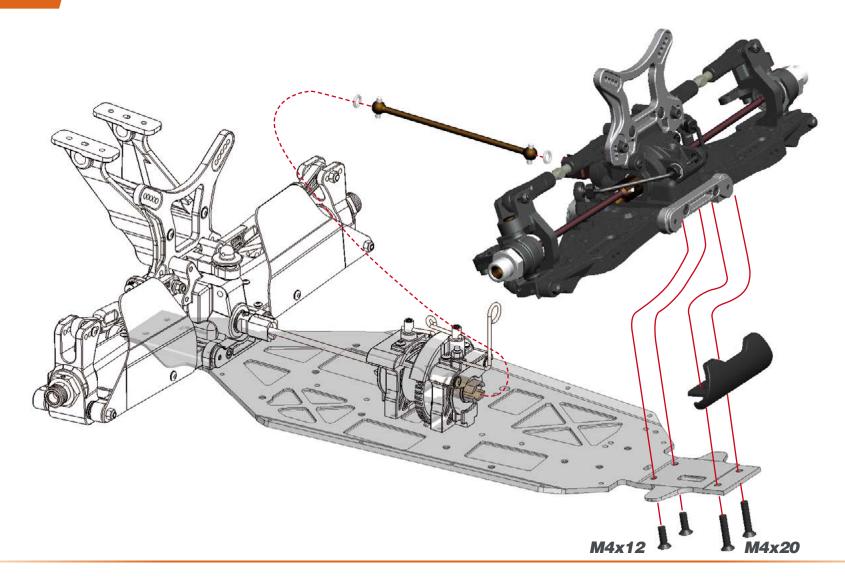




Nylock Nut M3





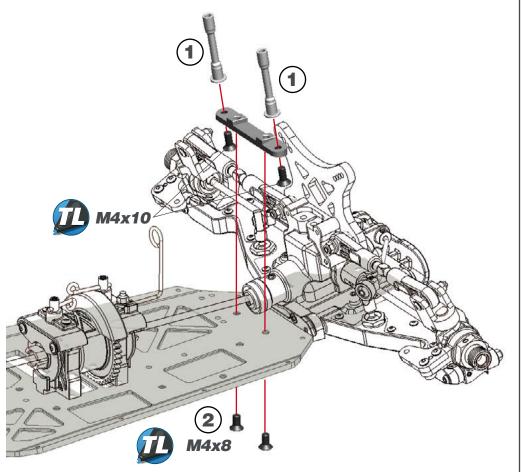


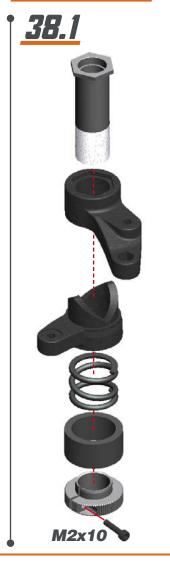


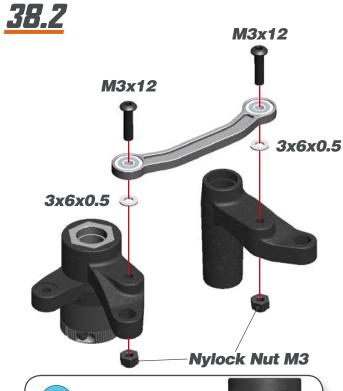




















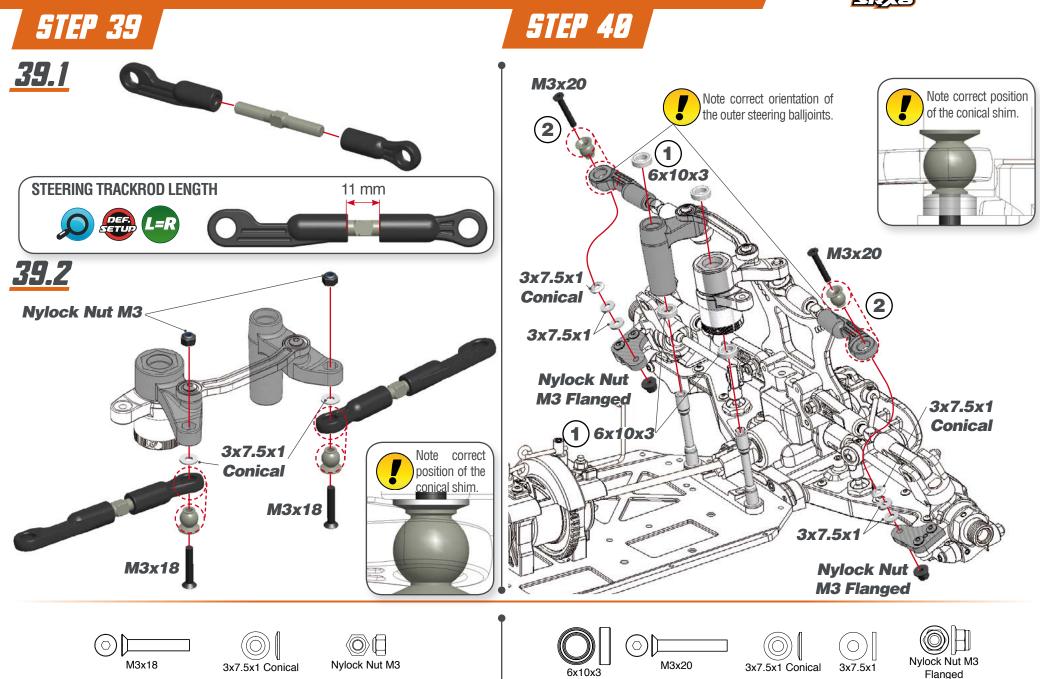










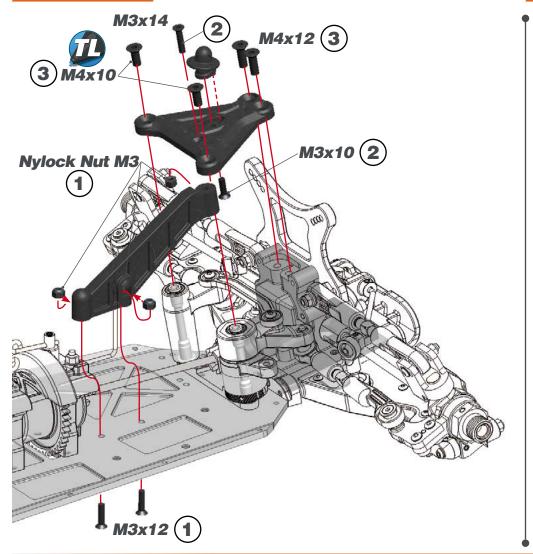


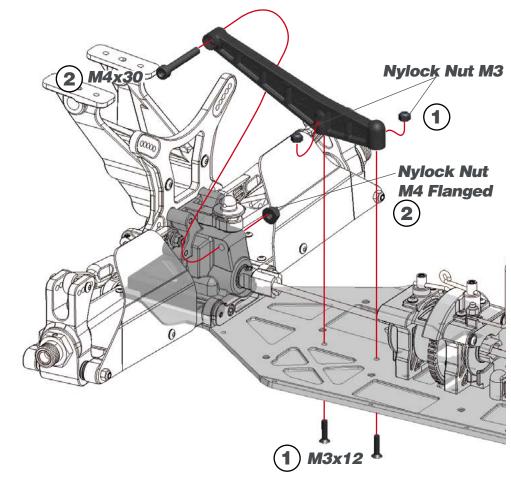




STEP 41 | BRG 11















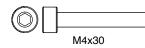








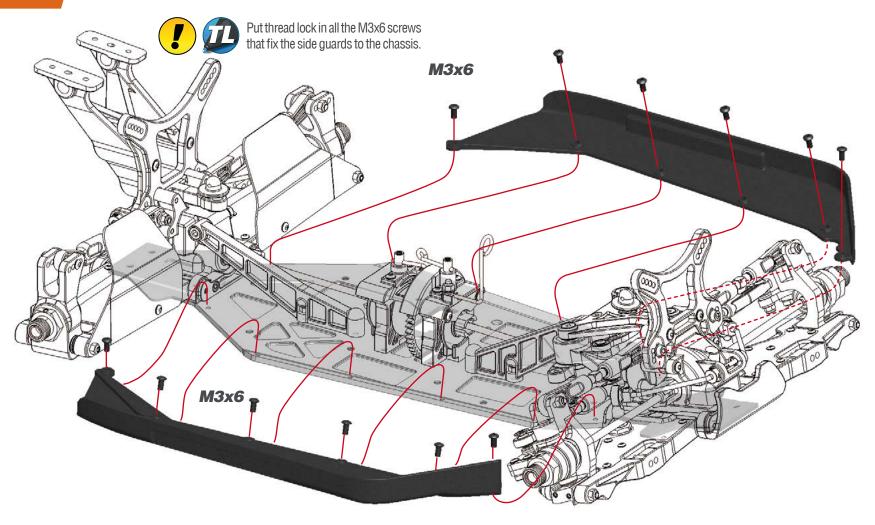










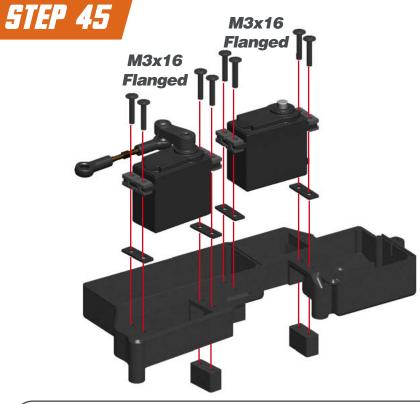




RADIO ASSEMBLY

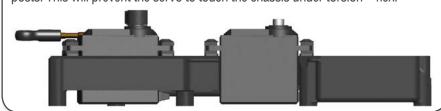








Use enough servo spacers so both servos are flush with the bottom of the radiotray posts. This will prevent the servo to touch the chassis under torsion – flex.





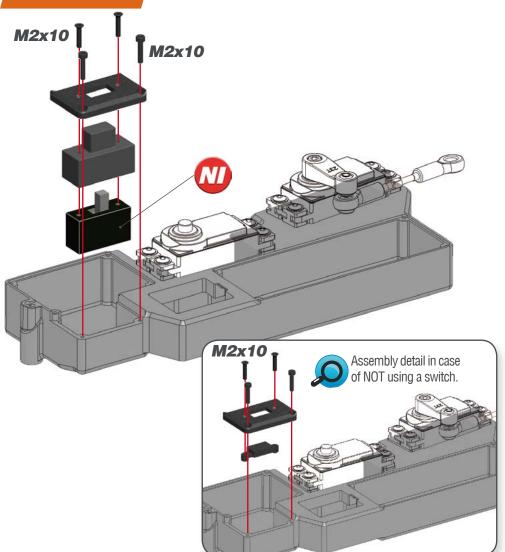




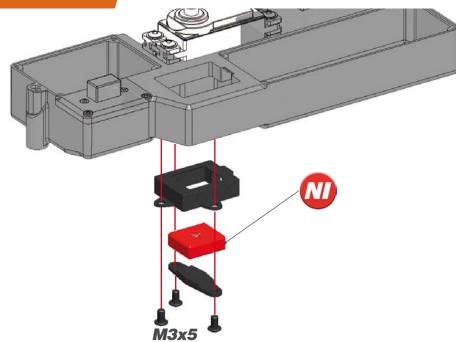


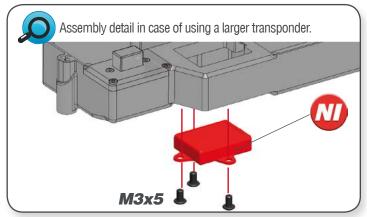














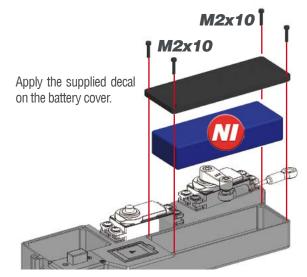


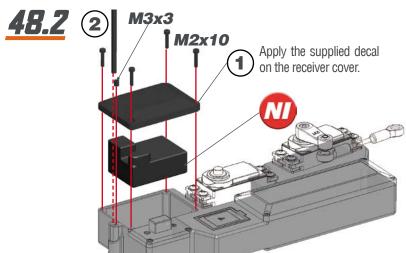


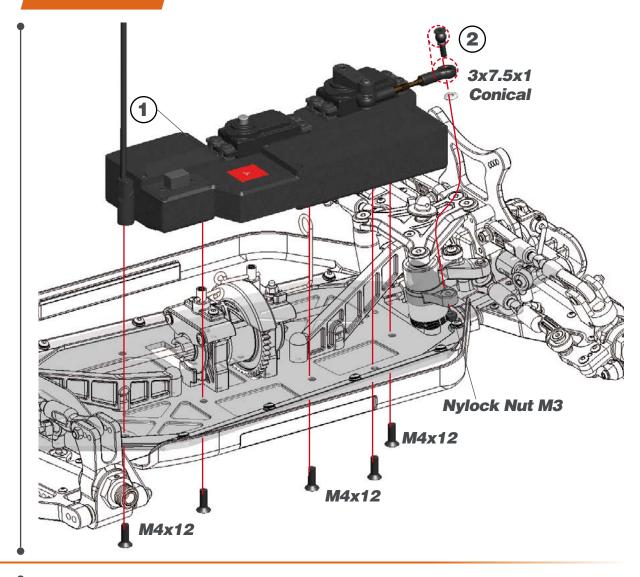




<u>48.1</u>











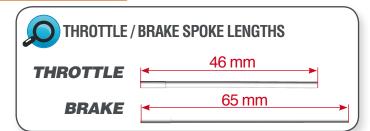


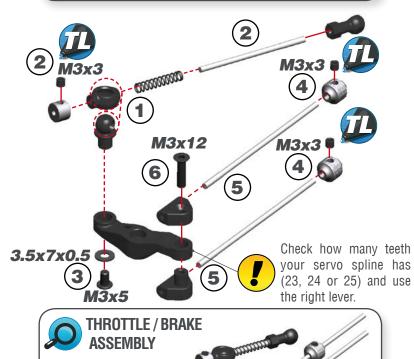


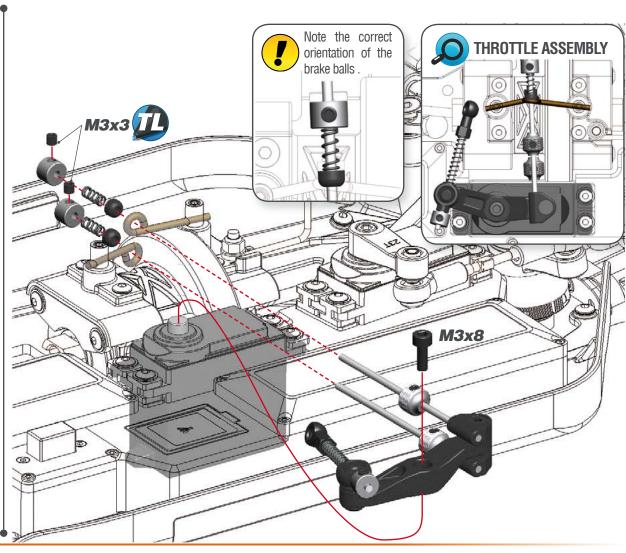
























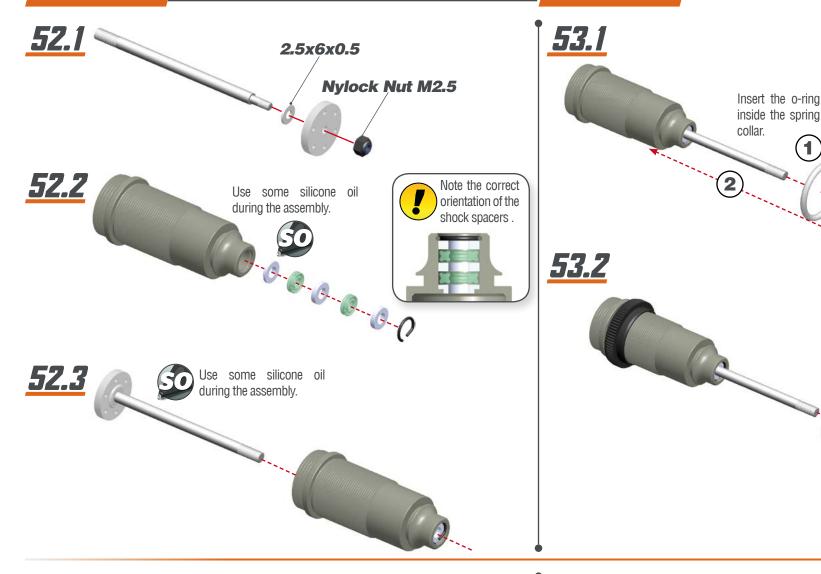


Note the correct

position of the

o-ring .

STEP 52 BAG 13 FR SHOCKS / BAG 14 RR SHOCKS STEP 53









54.1

54.2

setupsheet.

escape.

4- Apply the gasket and cap and close fully.

Push the membrane into the shock cap.



54.3

1-Bleed: push the shock-rod all the way in slowly, to allow excessive oil to escape.

2- With shockrod fully in, mount the o-ring and screw.







STEP 55

Assemble the spring and springcup (align correctly) to complete the shock.







SHOCKS LENGTH: Measure the

REAR

44

mm

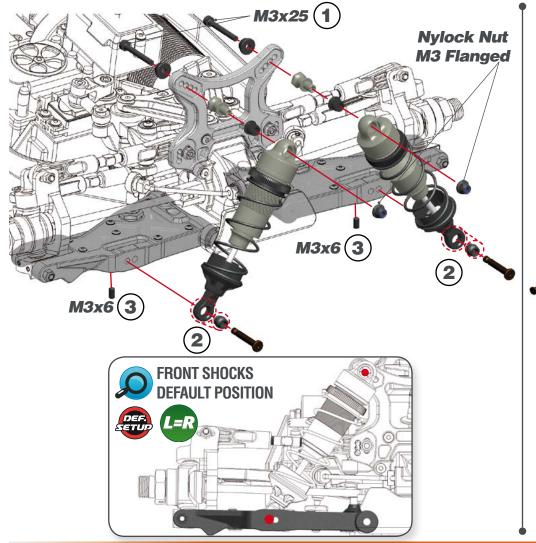
shock length fully extended.

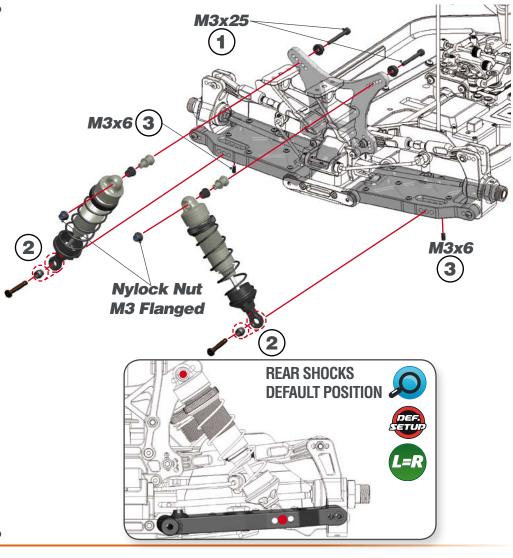
FRONT

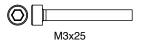






















FINAL ASSEMBLY

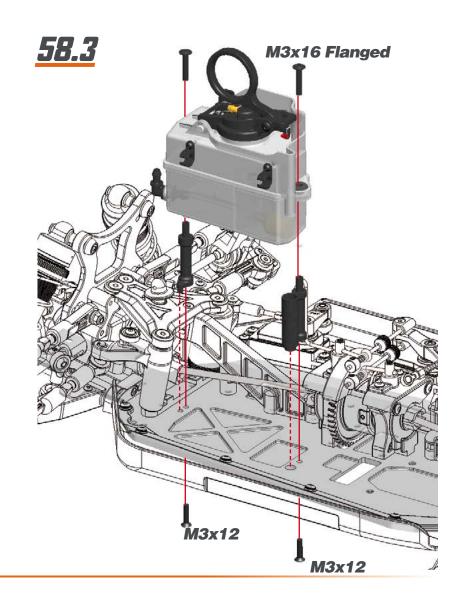


STEP 58 BAG 15





















CLUTCH AND ENGINE ASSEMBLY



STEP 59 BAG 16





STEP 60



Do not fully tighten the M3x14 screws till Step 61.













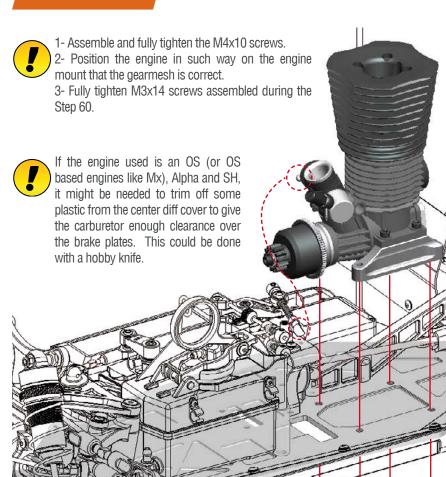


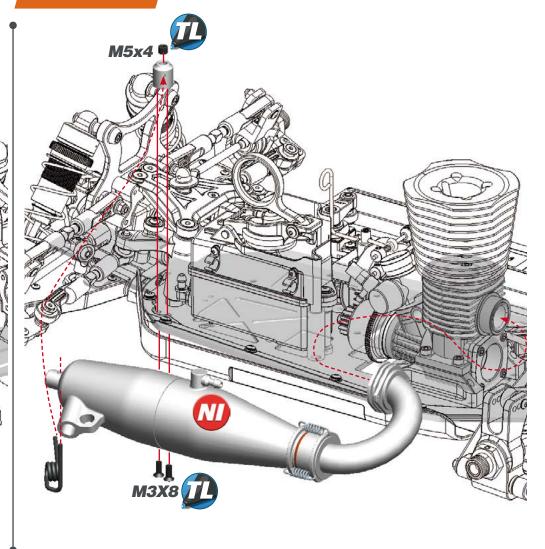




STEP 61

STEP 62







M4x10

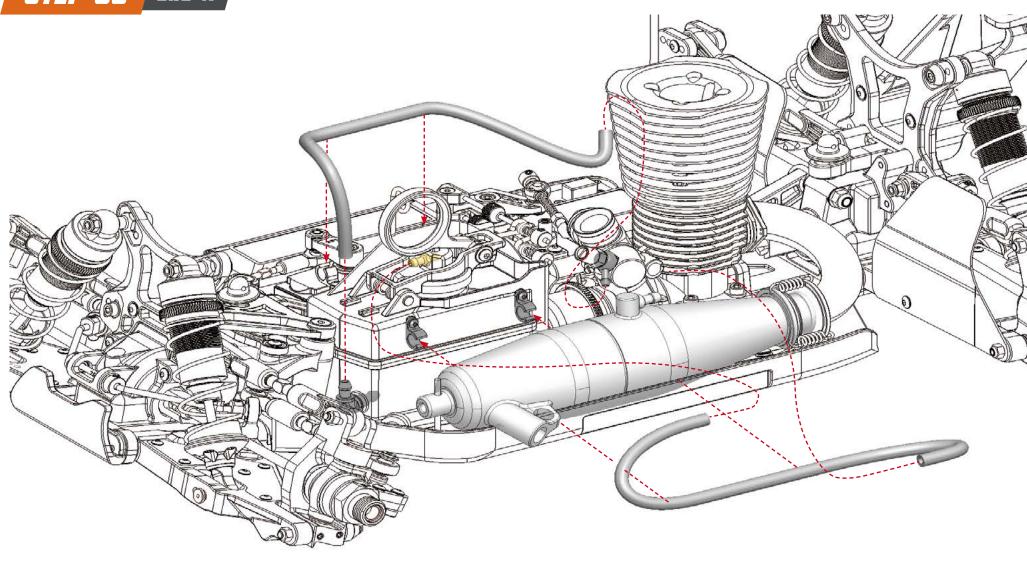








STEP 63 BAG 17

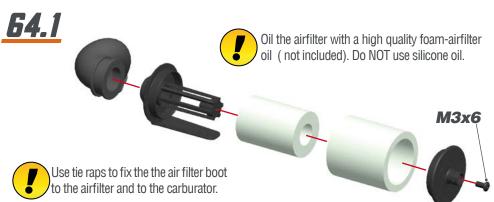


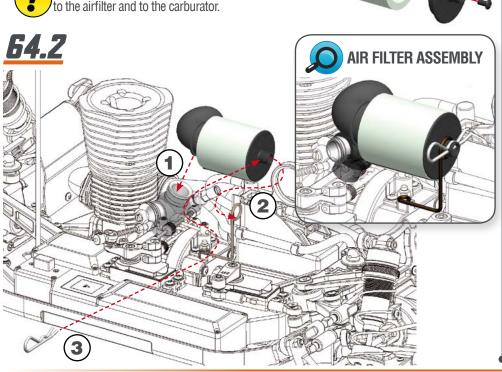


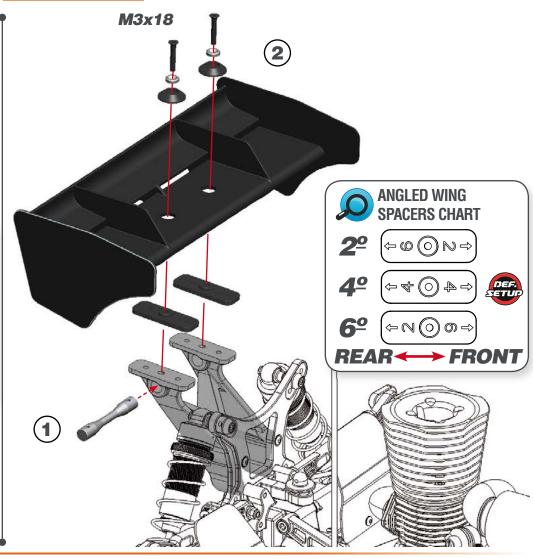


STEP 64

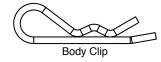
STEP 65

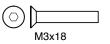






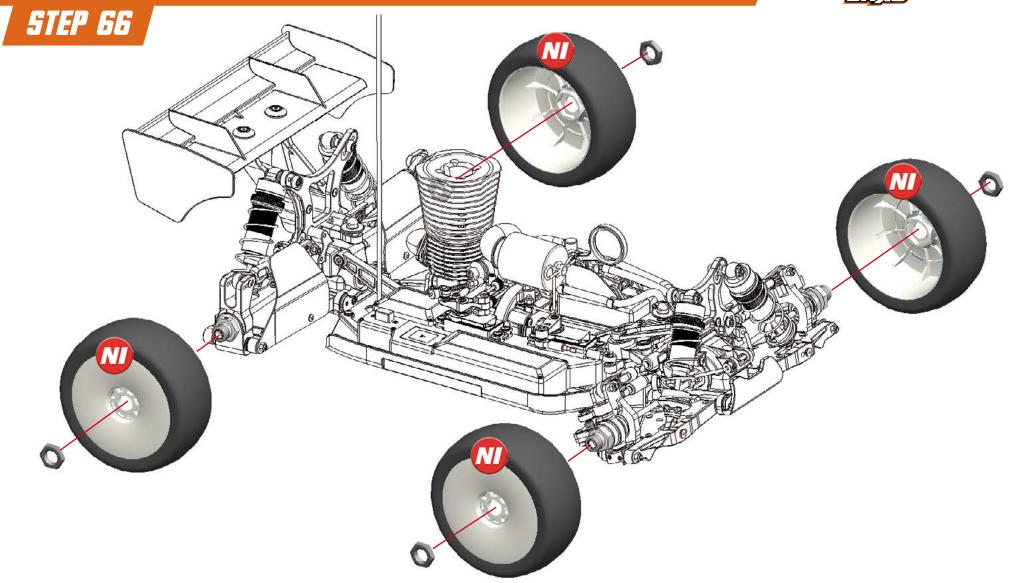










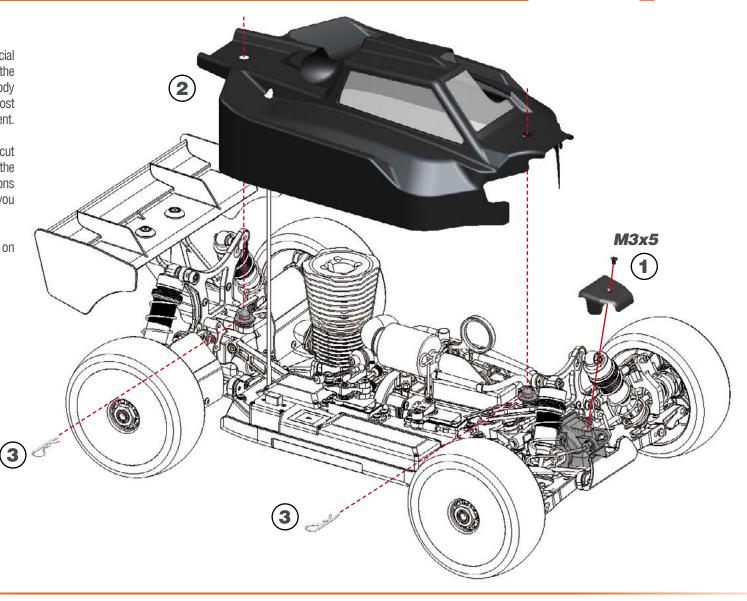




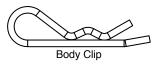


STEP 67

- 1- Cut the body along the cutting line with special scissors (not included). Make holes for the bodypost and antenna as needed with a body reamer (not included). Make a longer bodypost hole in the rear, to allow for chassis flex movement.
- 2- Before painting the body, apply the precut masking sheet elements to the inside of the body. Follow the cleaning & painting instructions supplied by the polycarbonate paint supplier you choose.
- 3- Apply the Serpent and Cobra logo-decals on the body and wing.







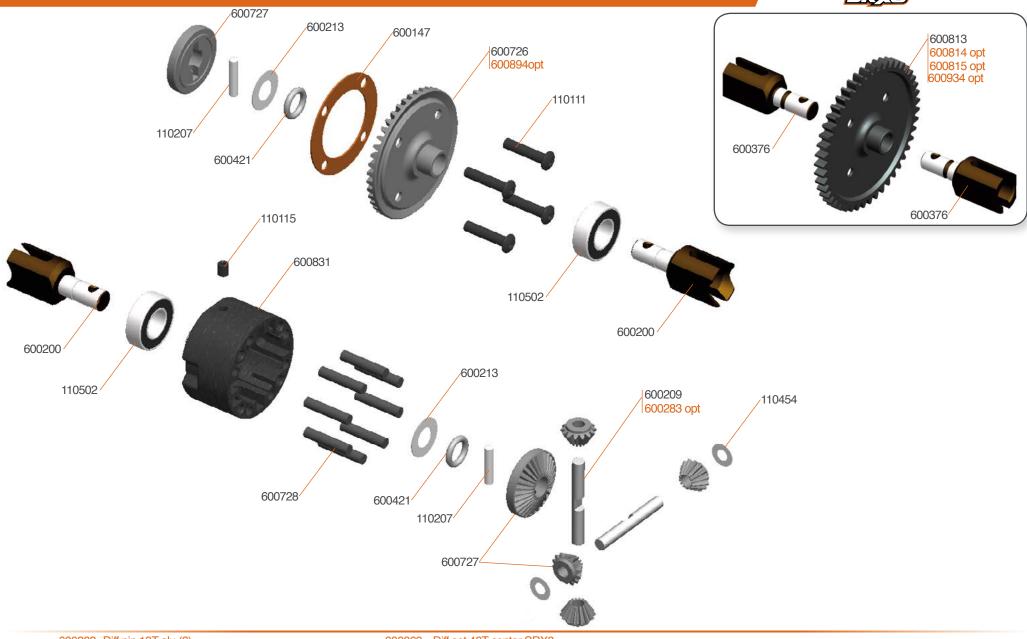


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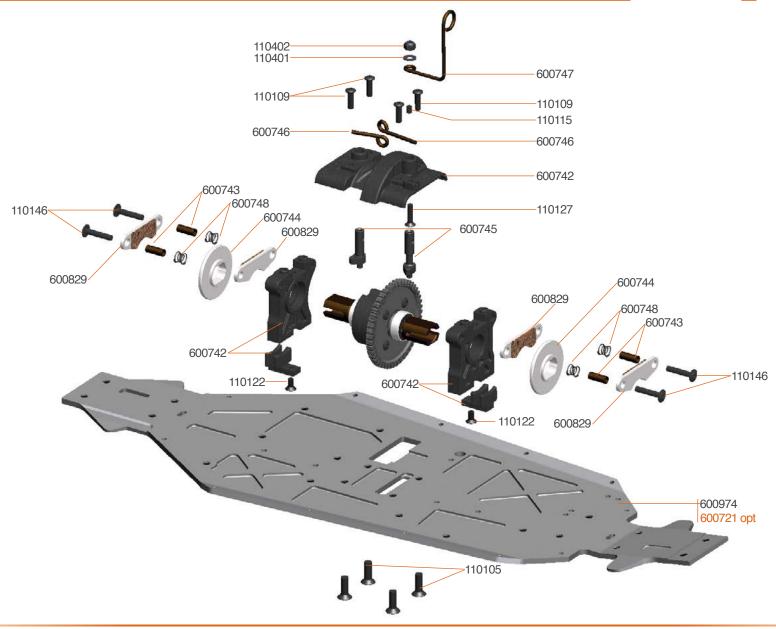
DIFFERENTIAL EXPLODED VIEW





600283 Diff pin 10T alu (2) 600814 Spur gear 47T SRX8 600815 Spur gear 48T SRX8 600868 Diff set 44T front / rear SRX8 600869 Diff set 46T center SRX8 600894 Overdrive diff gear 43T SRX8 600934 Spur gear 44T SRX8



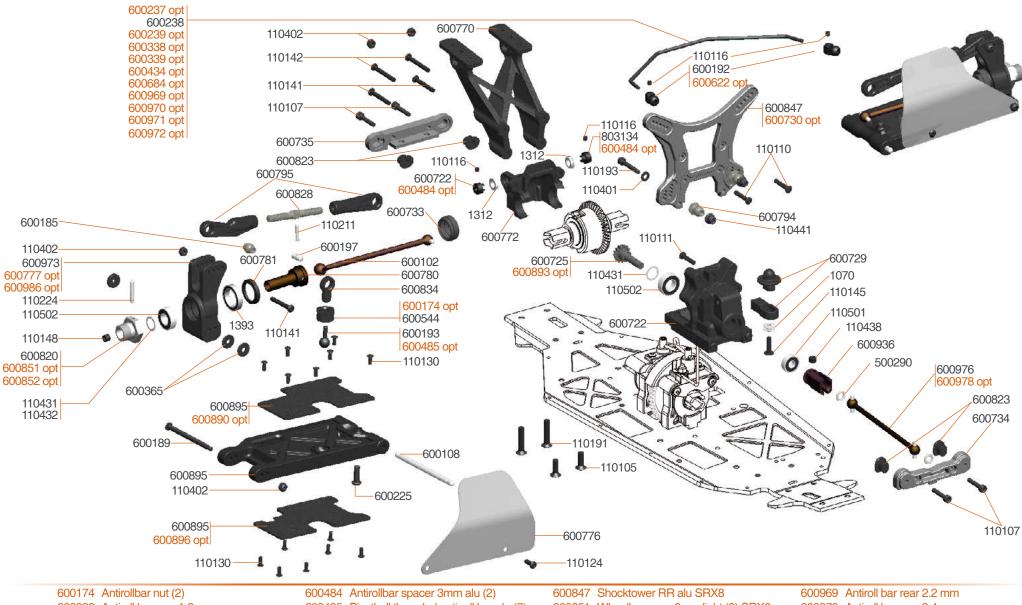


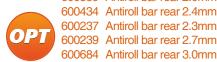
600721 Chassis alu hard coated SRX8



REAR EXPLODED VIEW







600338 Antiroll bar rear 1.8mm 600339 Antiroll bar rear 2.0mm 600434 Antiroll bar rear 2.4mm 600237 Antiroll bar rear 2.3mm 600239 Antiroll bar rear 2.7mm

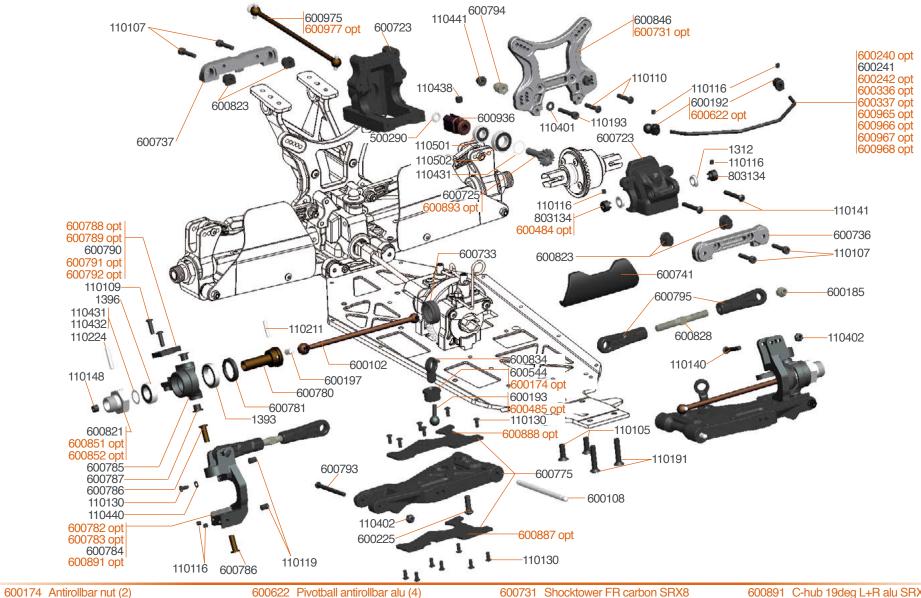
600485 Pivotball threaded anti roll bar alu (2) 600622 Pivotball antirollbar alu (4) 600777 Upright(2) alu SRX8 600896 Wishbone insert carbon RR Lower V2 SRX8 600838 Upright weight brass 15gr (2) SRX8

600851 Wheelhexagon 0mm light (2) SRX8 600852 Wheelhexagon +1mm light (2) SRX8 600853 Gear coupler alu SRX8 600890 Wishbone insert carbon RR Upper SRX8 (2)

600893 Overdrive diff pinion 13T SRX8

600970 Antiroll bar rear 2.4 mm 600971 Antiroll bar rear 2.6 mm 600972 Antiroll bar rear 2.8 mm 600978 Driveshaft center rr alu SRX8 EVO 600986 Upright alu V2 with inserts SRX8



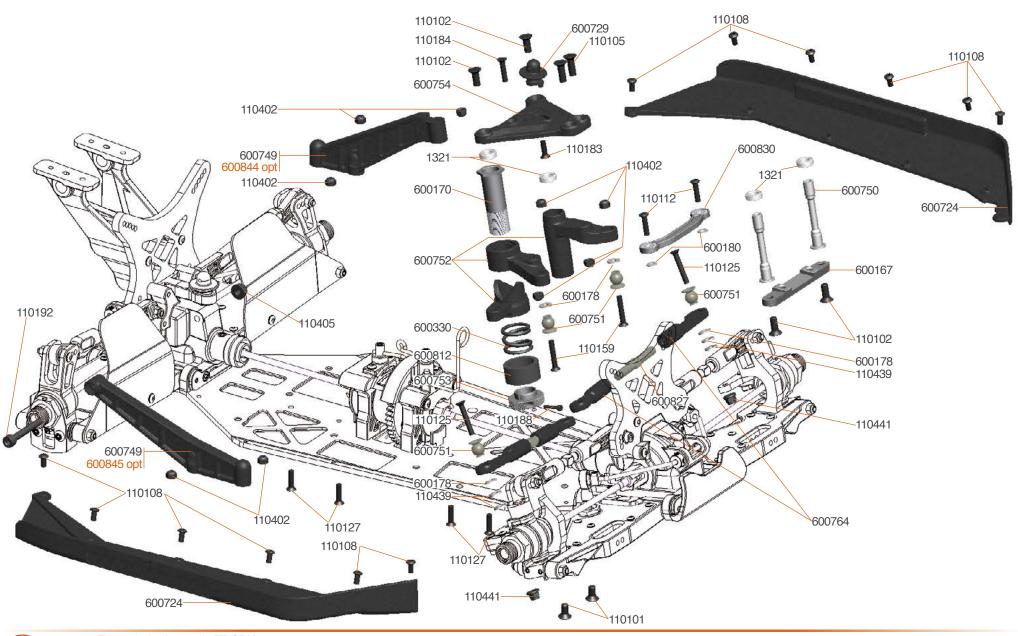


6002 6002 6004 6004

600336 Antiroll bar front 1.8mm 600337 Antiroll bar front 2.0mm 600240 Antiroll bar front 2.3mm 600242 Antiroll bar front 2.7mm 600484 Antirollbar spacer 3mm alu (2) 600485 Pivotball threaded anti roll bar alu (2) 600622 Pivotball antirollbar alu (4) 600782 C-hub 13deg L+R alu SRX8 600784 C-hub 17deg L+R alu SRX8 600788 Steering arm 0 carbon (2) SRX8 600789 Steering arm 1 carbon (2) SRX8 600791 Steering arm 3 carbon (2) SRX8 600792 Steering arm 4 carbon (2) SRX8 600731 Shocktower FR carbon SRX8 600851 Wheelhexagon 0mm light (2) SRX8 600852 Wheelhexagon +1mm light (2) SRX8 600887 Wishbone insert carbon FR Lower SRX8 (2) 600888 Wishbone insert carbon FR Upper SRX8 (2) 600891 C-hub 19deg L+R alu SRX8 600893 Overdrive diff pinion 13T SRX8 600965 Antiroll bar front 2.2 mm 600966 Antiroll bar front 2.4 mm 600967 Antiroll bar front 2.6 mm 600968 Antiroll bar front 2.8 mm 600977 Driveshaft center fr alu SRX8 EVO

STEERING EXPLODED VIEW

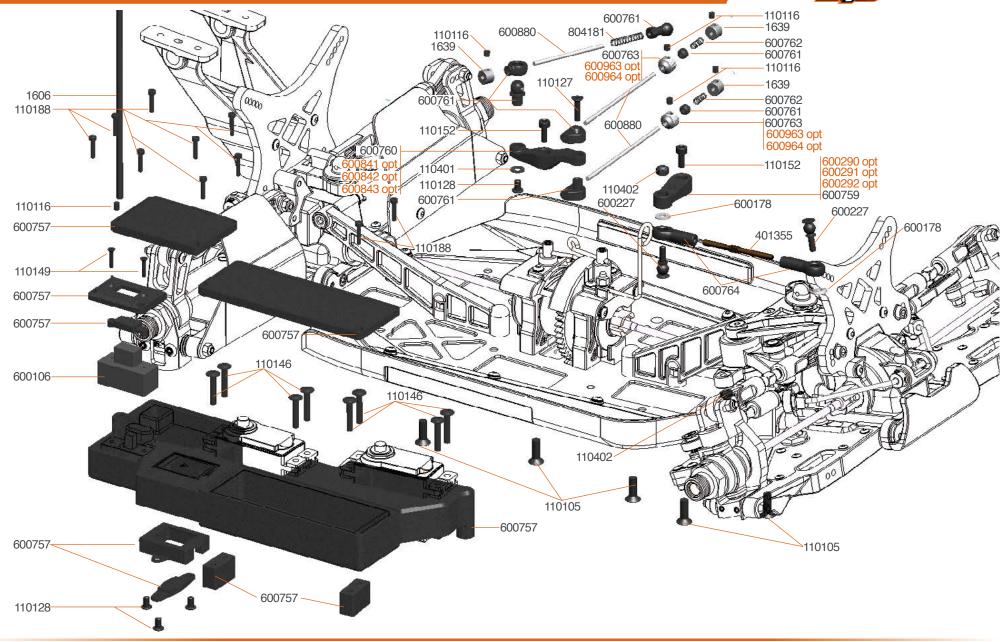






RADIO EXPLODED VIEW

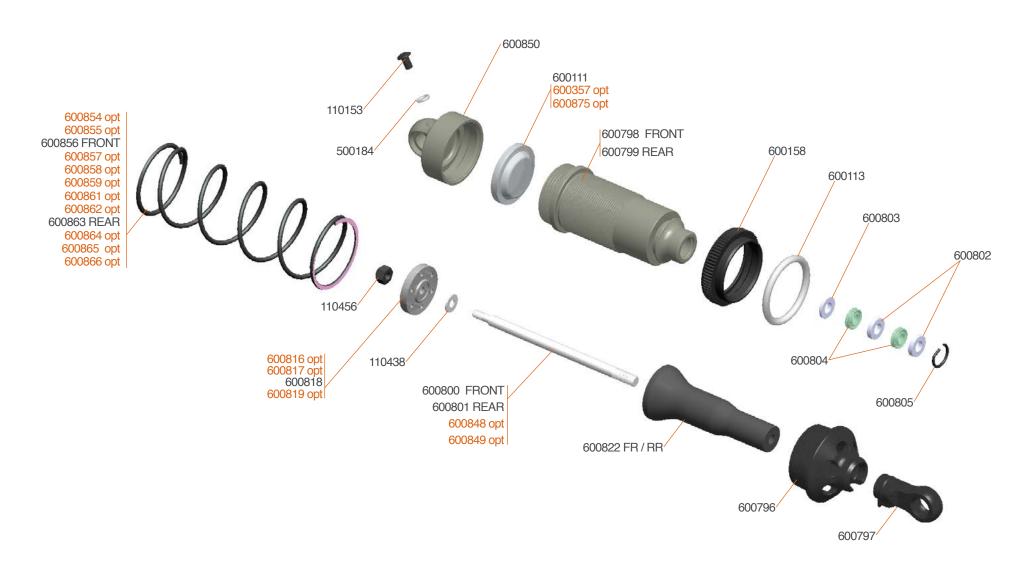




600290 Servo lever steering 23T alu 600291 Servo lever steering 24T alu 600292 Servo lever steering 25T alu 600841 Servo lever throttle alu 23T SRX8 600842 Servo lever throttle alu 24T SRX8 600843 Servo lever throttle alu 25T SRX8 600758 Radio + battery box skin carbon look SRX8 600963Brake adjust collar alu orange (2) SRX8 600964 Brake adjust collar alu black (2) SRX8

SHOCKS EXPLODED NIEW







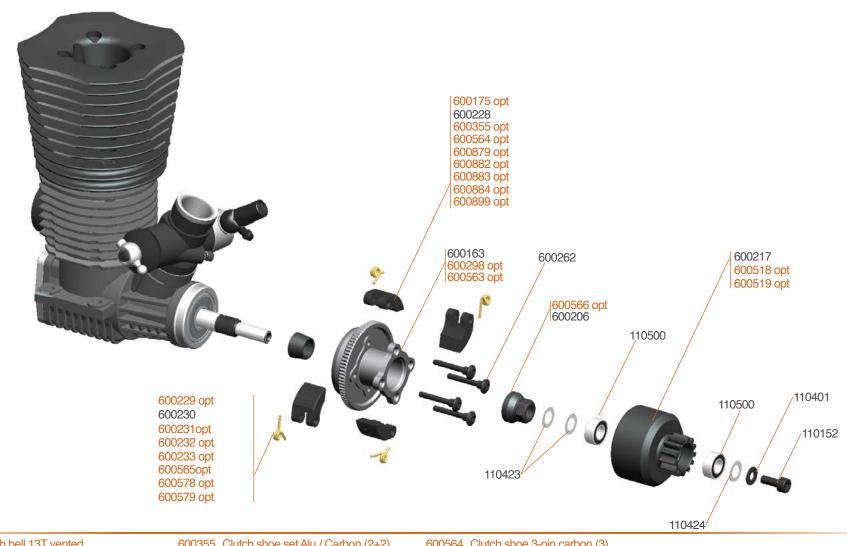
600357 Membrane webbed silicone (4) 600854 Shockspring FR 4.5 lbs orange (2) 600855 Shockspring FR 4.7 lbs red (2) 600857 Shockspring FR 5.1 lbs blue (2) 600858 Shockspring FR 5.3 lbs purple (2)

600860 Shockspring set FR (6x2) 600861 Shockspring RR 3.0 lbs orange (2) 600862 Shockspring RR 3.2 lbs red (2) 600864 Shockspring RR blue 3.6lbs (2) 600865 Shockspring RR 3.8 lbs purple (2) 600866 Shockspring RR 4.0 lbs green (2)

600867 Shockspring set RR (6x2) 600357 Membrane webbed silicone (4) 600816 Shock piston blank (4) SRX8 600817 Shock piston 5 holes (4) SRX8 600819 Shock piston 8 holes (4) SRX8 600848 Shock shaft FR TiN coated (2) SRX8 600849 Shock shaft RR TiN coated (2) SRX8 600870 Shock set Pro front (2) SRX8 600871 Shock set Pro rear (2) SRX8

600875 Shock top gasket (4) SRX8





600518 Clutch bell 13T vented 600519 Clutch bell 14T vented

600229 Clutch spring soft 0.85mm (4)

600231 Clutch spring hard 0.95mm(4)

600232 Clutch spring X hard 1mm(4) 600233 Clutch spring set (4x4)

600175 Clutchshoe alu (4)

600355 Clutch shoe set Alu / Carbon (2+2)

600244 Clutch-set alu / carbon

600298 Flywheel steel

600563 Flywheel 3-pin alu

600565 Clutch spring 3-pin 0.9mm (3)

600578 Clutch spring 3-pin 1.0mm (3) 600579 Clutch spring 3-pin 1.0mm (3) 600564 Clutch shoe 3-pin carbon (3)

600566 Clutch nut 3-pin

600879 Clutch shoe yellow (4)

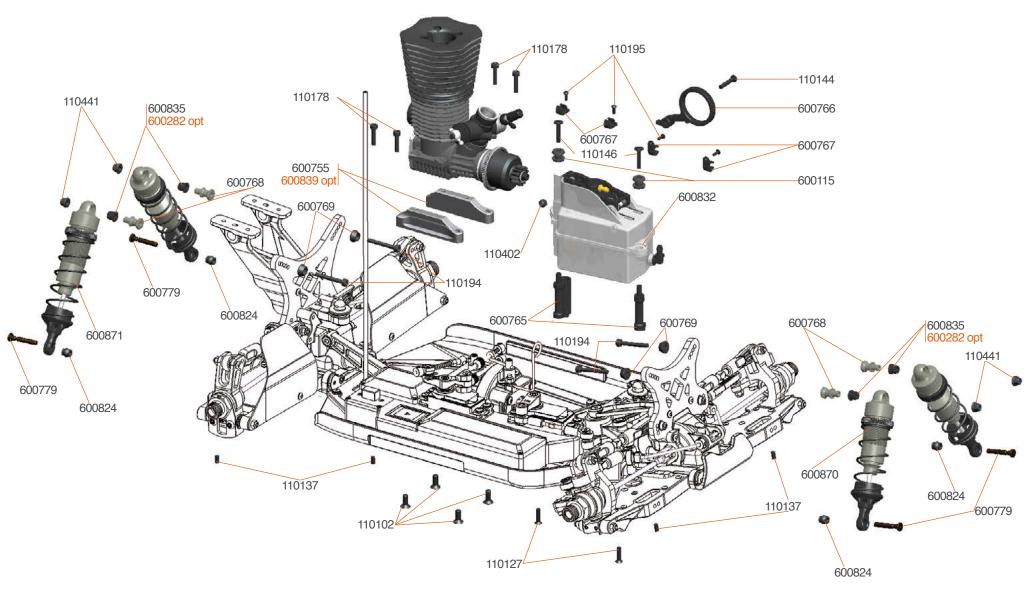
600882 Clutch shoe 4-pin alu 6061 (4)

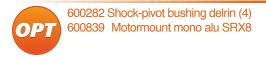
600883 Clutch shoe 3-pin alu 6061 (3)

600884 Clutch shoe 3-pin alu 7075 (3)



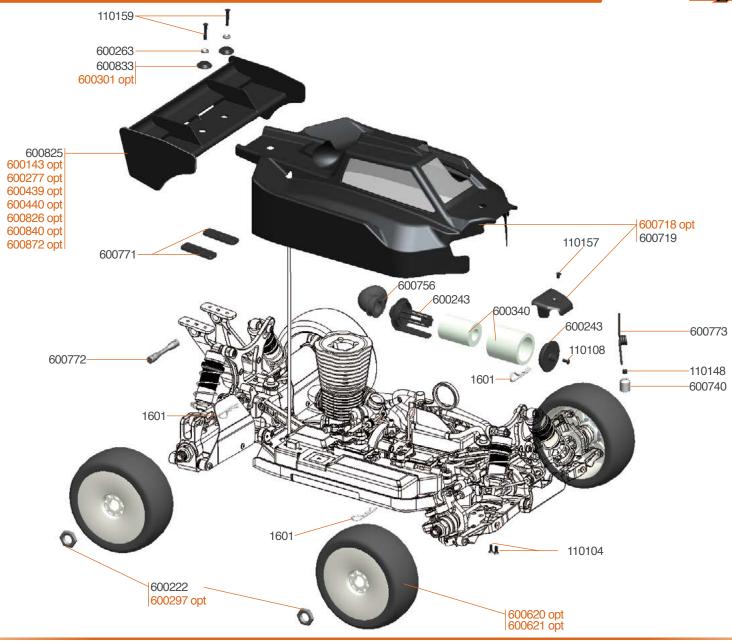


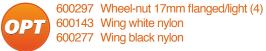




FINAL 2 EXPLODED NIEW







600439 Wing white low 811 600440 Wing black low 811 600719 Body SRX8 High Downforce 600826 Wing straight MD white 1/8 600840 Wing lexan HD with gurney 1/8 600872 Wing gurney 600620 Rim 1/8 buggy White (4) 600621 Rim 1/8 buggy Yellow (4)

TEAM SERPENT NETWORK

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SRX8 EVO OPTIONALS PARTS www.serpent.com/600019/Optionals/



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