

SRRX2 TEAM

gen3



**INSTRUCTION
MANUAL**

EP
1/10 2WD - Buggy

SERPENT

INTRODUCTION

The Serpent SRX2 Gen3 Team is a state of the art 1/10 scale 2wd 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. The Serpent design department succeeded to create a superbly performing car combined with ease 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 bag numbers, 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 later on 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 SRX2 Gen3 Team. Fine-tuning the initial setup is an essential part of building a high-performance racecar like your Serpent SRX2 Gen3 Team.

EXPLODED VIEWS AND PARTS LIST

The exploded views and parts lists for the Serpent SRX2 Gen3 Team 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. Part numbers in orange indicate that this part is an optional. Optionals part names and numbers are shown 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 gloves.
- 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.



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



Connect one item to another



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.



Silicone 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.



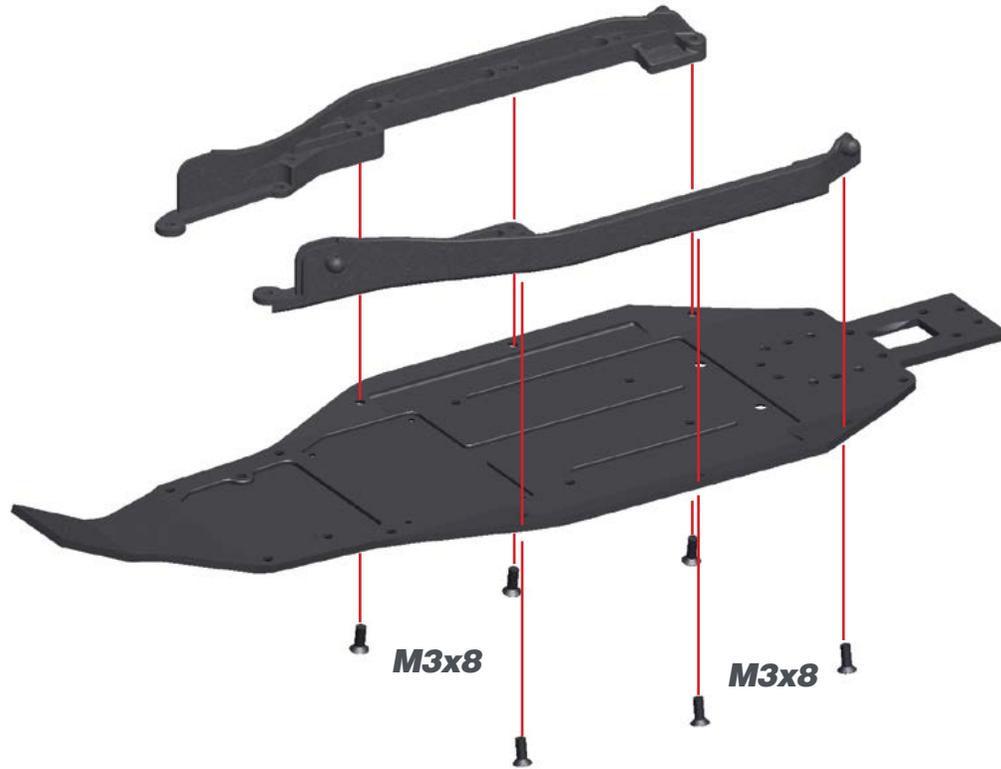
Parts or items not included in the kit.



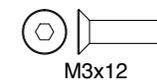
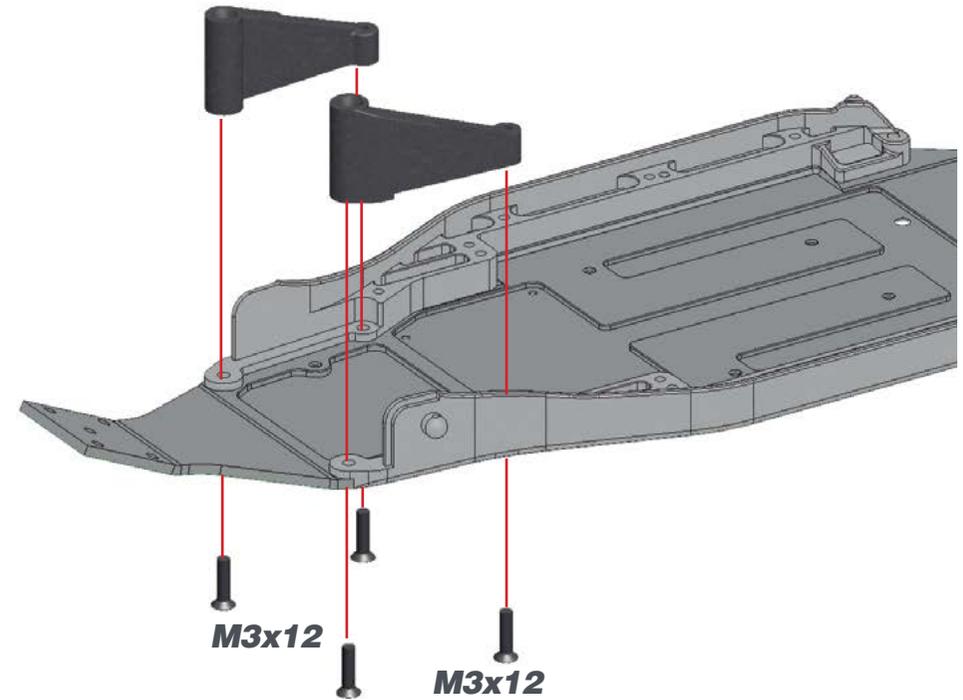
Optional part, not standard in the kit.

STEP 1

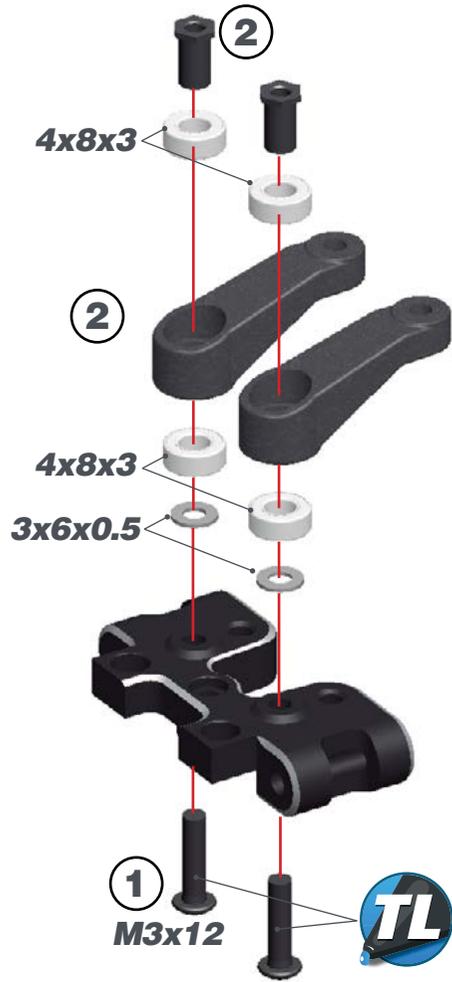
BAG 1



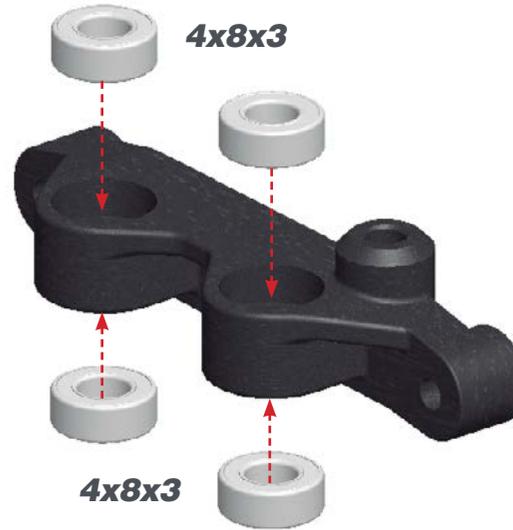
STEP 2



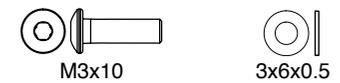
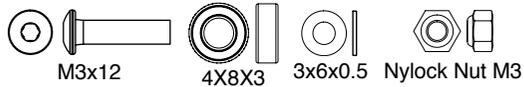
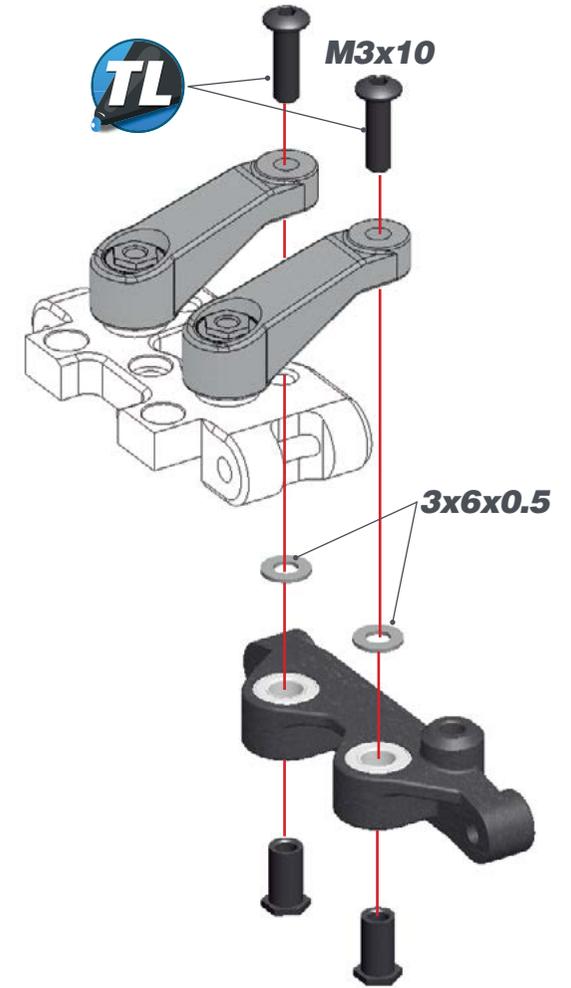
STEP 3



STEP 4



STEP 5



STEP 6

STEP 7

BAG 2

7.1

-  1- Check how many teeth your servo spline has (23, 24 or 25) and use the right lever.
- 2- Make sure to put the servo in neutral before mounting the lever.

7.2



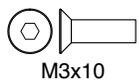
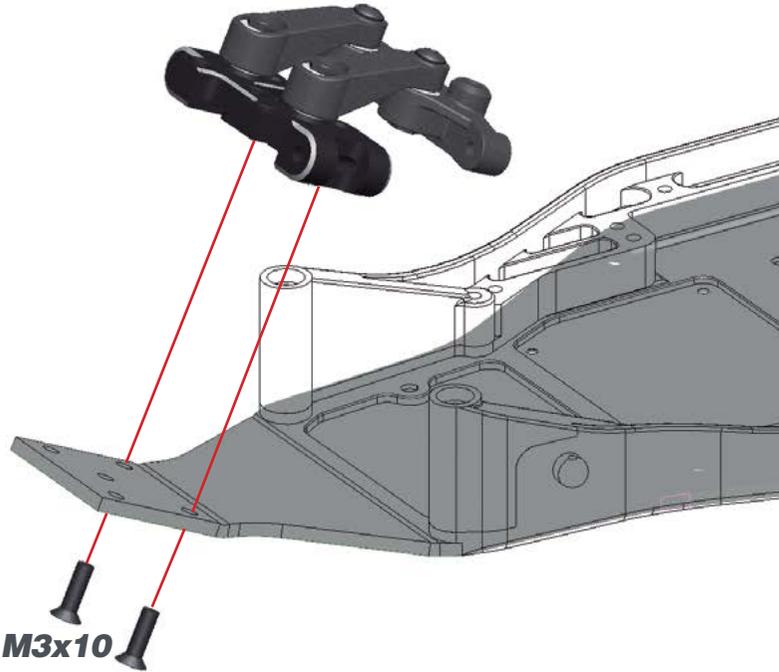
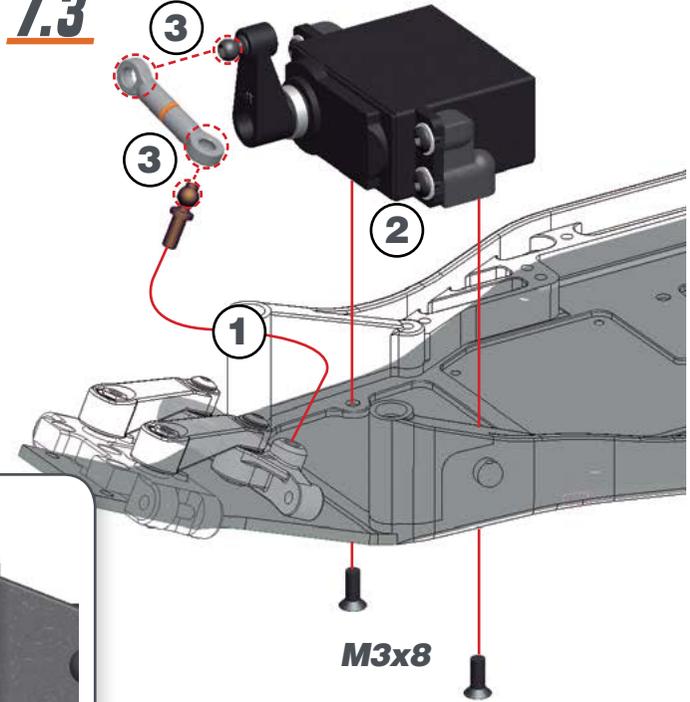
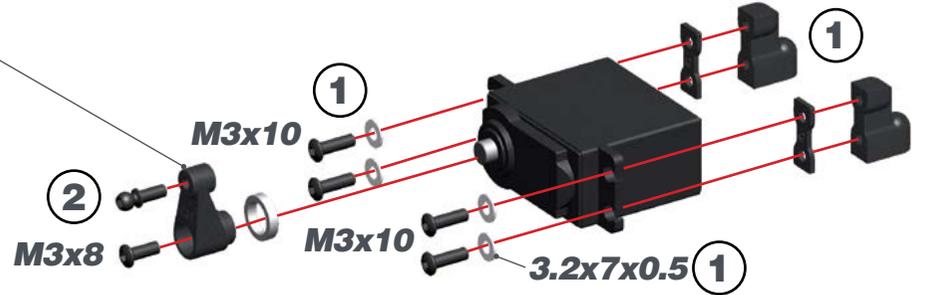
 **STEERING LINK LENGTH**
The length may differ slightly per servo-brand.



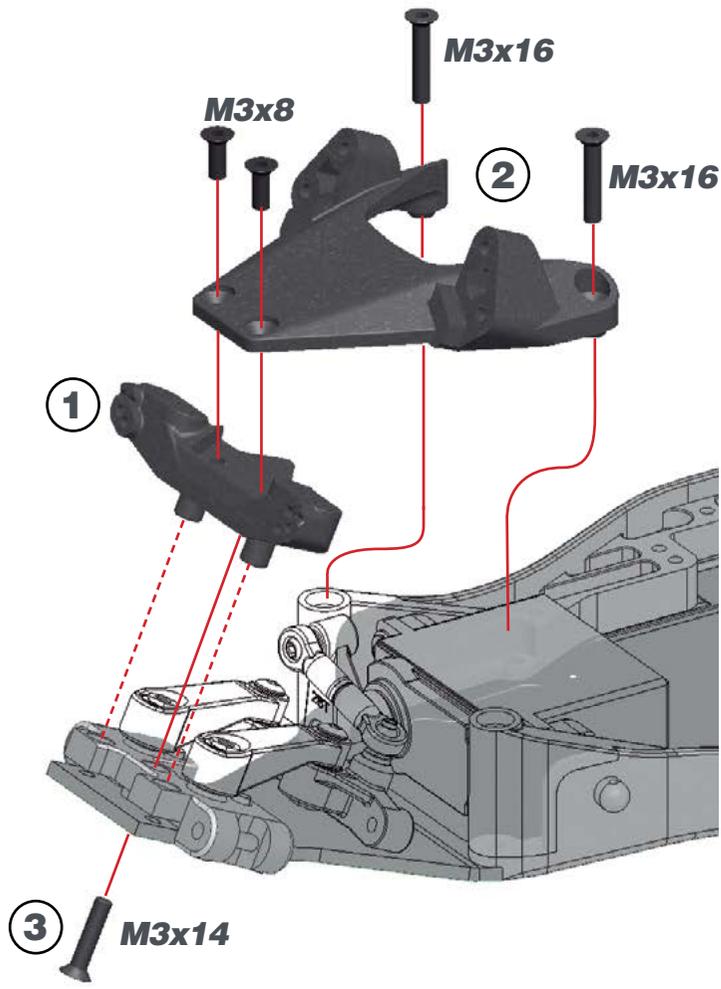
 **2.5 ~ 3 mm**



7.3

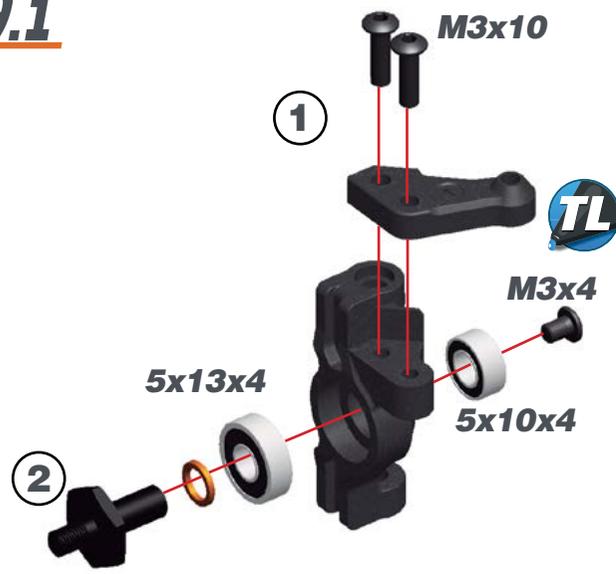


STEP 8



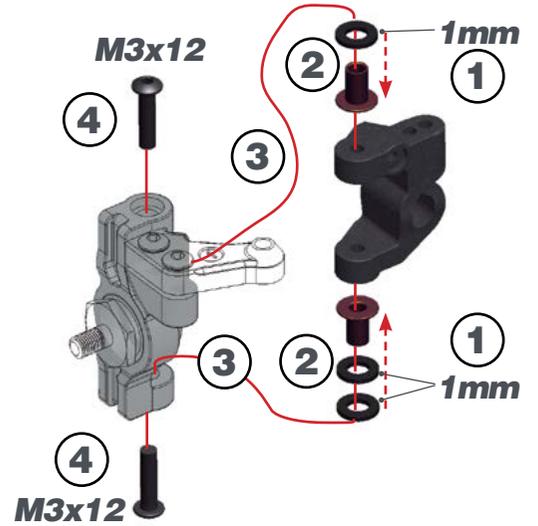
STEP 9 BAG 3

9.1



9.2

! Place the caster shims and the bushings in the steering block first. Then slide the assembly onto the casterblock.



L-R STEERING ARMS CHART

MORE ACKERMANN ← → LESS ACKERMANN

DEF. SETUP

STEERINGBLOCK ASSEMBLY

- M3x8
- M3x14
- M3x16

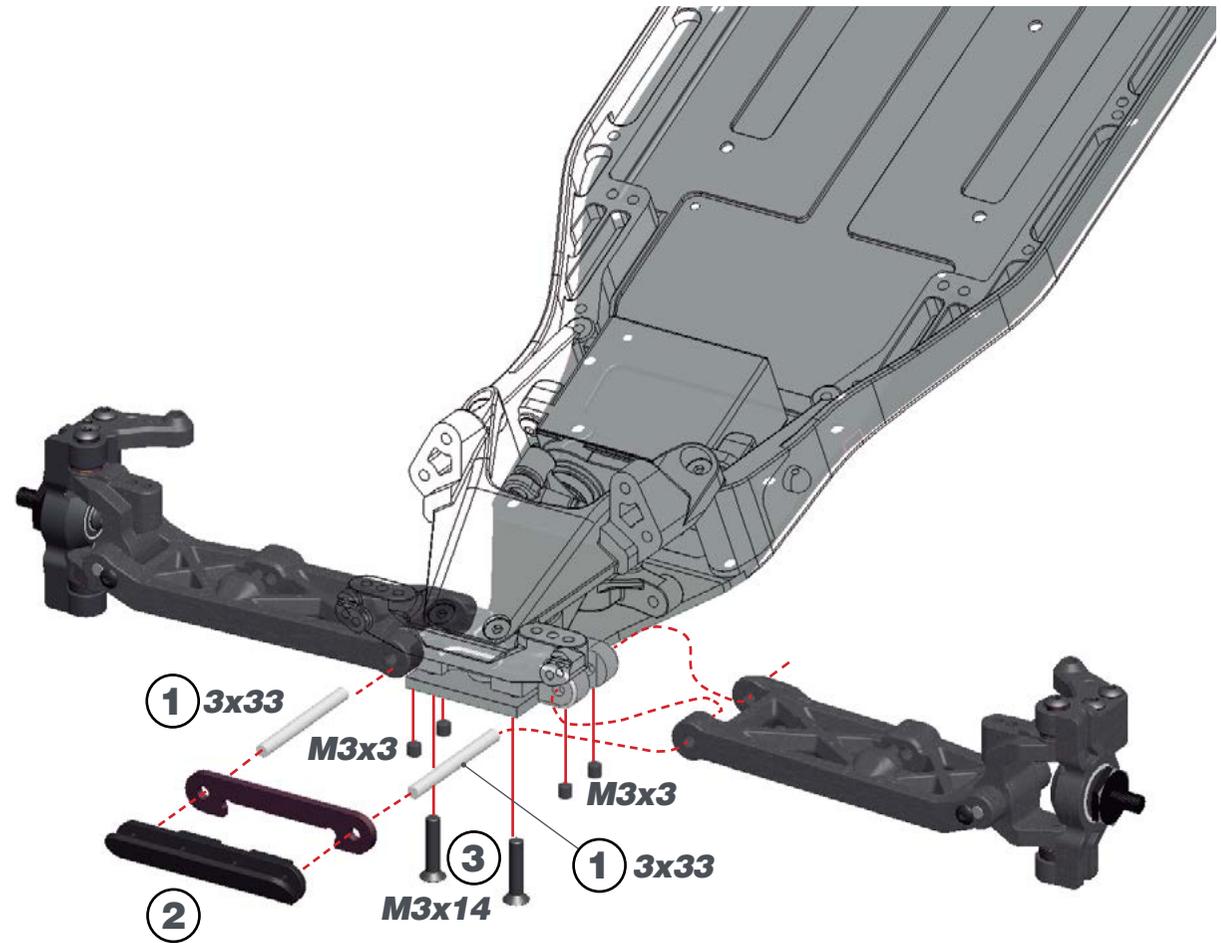
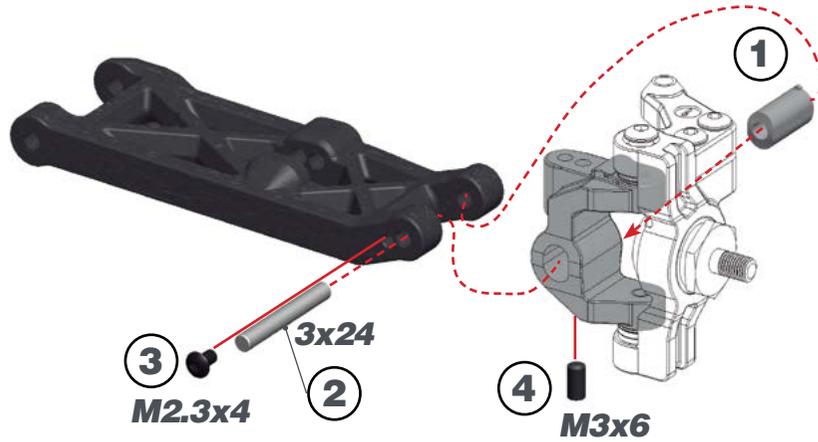
- M3x4
- M3x10
- 5x10x4
- 5x13x4

- M3x12

STEP 10

BAG 4

STEP 11

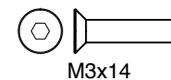


L=R CASTER BLOCK INSERTS CHART

Front default caster angle is 25° using the 0° default insert. You can add or remove caster using the different inserts included in the kit.

- Caster	
+ Caster	

It is possible to adjust the caster angle from 20° to 30° in 2.5° steps according to the chart shown below:



STEP 12

12.1



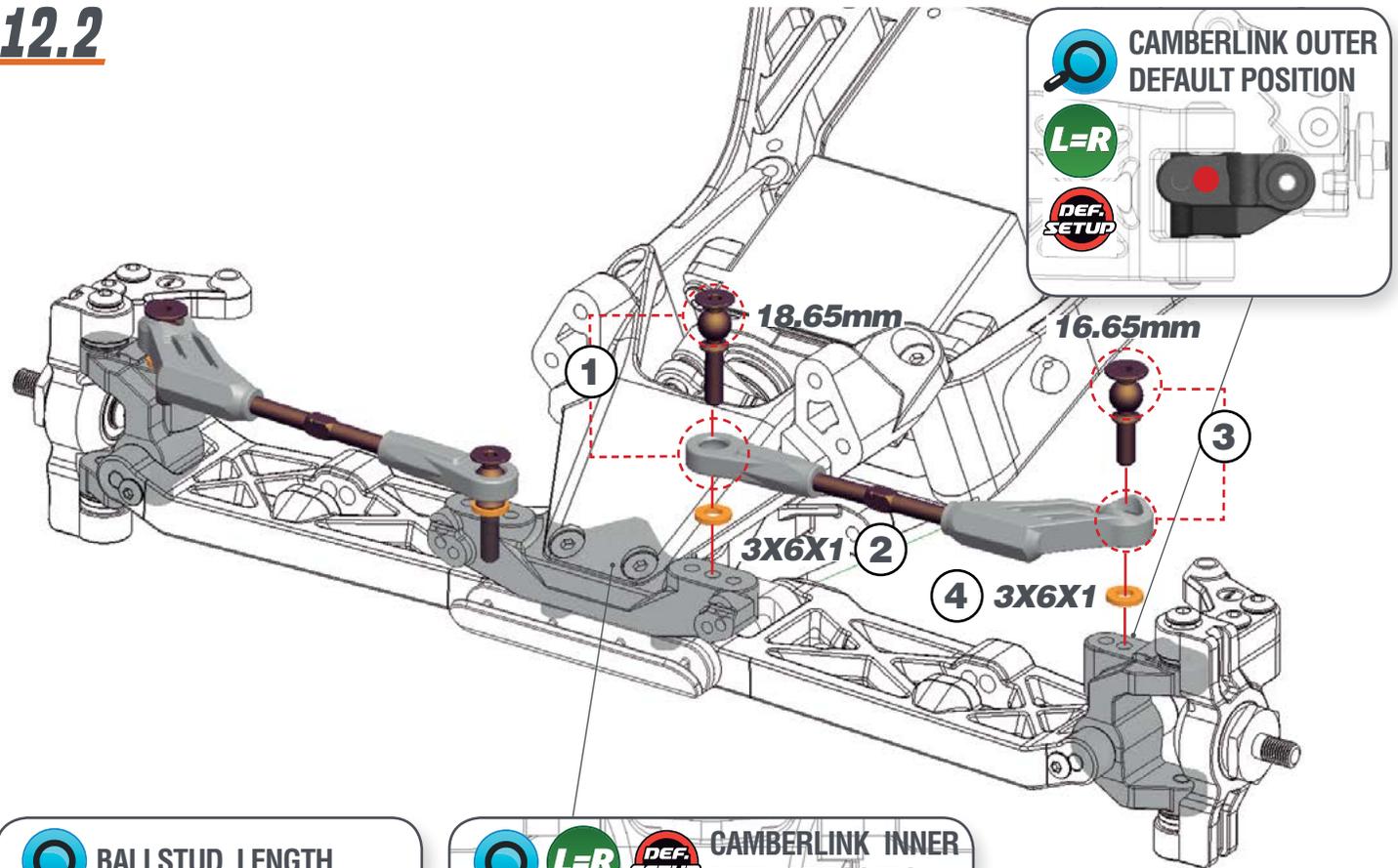
FRONT CAMBERLINK LENGTH

L=R

25 mm

DEF. SETUP

12.2



CAMBERLINK OUTER DEFAULT POSITION

L=R

DEF. SETUP

BALLSTUD LENGTH

18.65mm

16.65mm

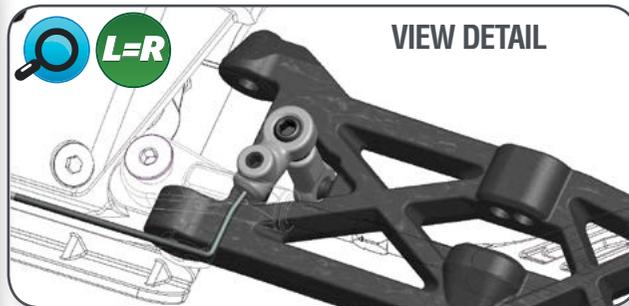
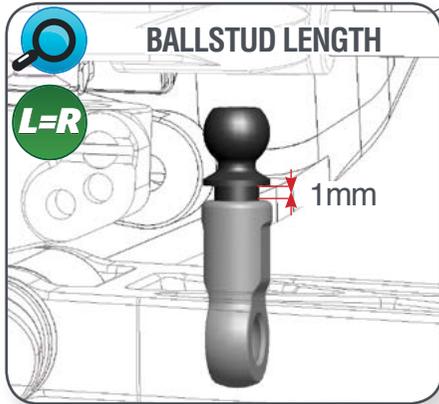
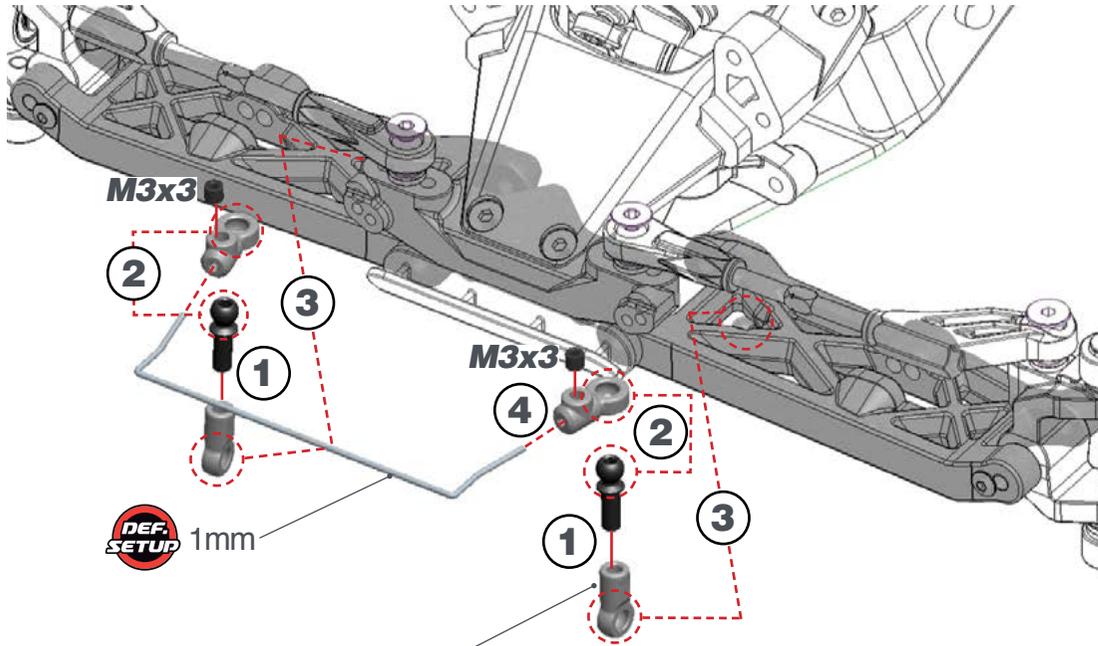
CAMBERLINK INNER DEFAULT POSITION

L=R

DEF. SETUP

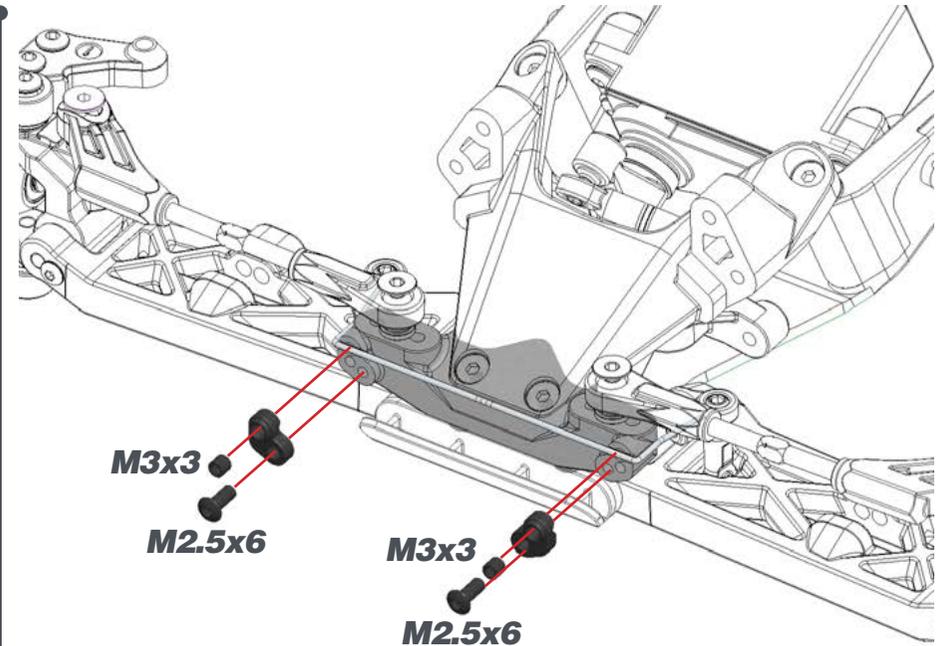


STEP 13



 M3x3

STEP 14



 Do not overtighten the M3x3 setscrews and ensure that the front antiroll bar and front suspension moves freely.

 M3x3  M2.5x6

STEP 15

15.1



DEF. SETUP **STEERING TRACKROD LENGTH**

L=R

29.5 mm

15.2

15mm

1

2

3

4

3x6x1

3x6x1

16.65mm

DEF. SETUP **BALLSTUD LENGTH**

L=R

15mm

16.65mm



STEP 16

1

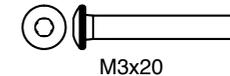
2

M3x20

M3x10

M3x10

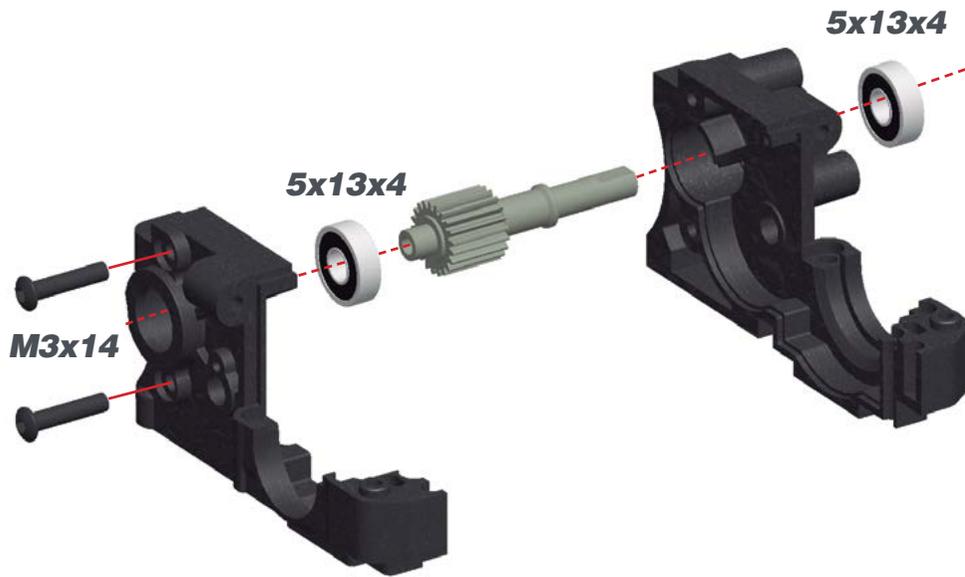
DEF. SETUP **L=R** **FRONT SHOCKS**
DEFAULT POSITION



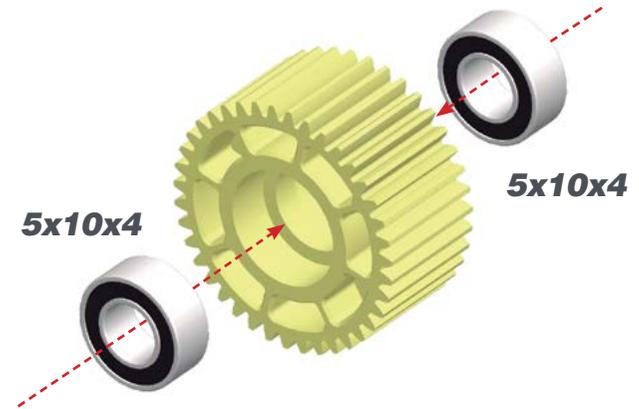
STEP 17

BAG 5

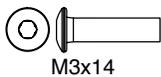
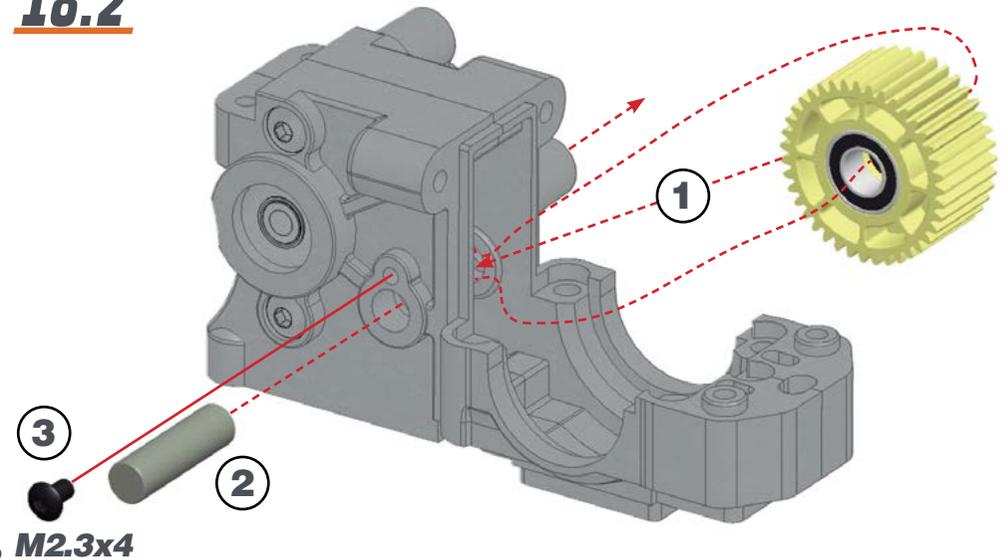
STEP 18



18.1



18.2



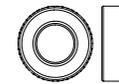
M3x14



5x13x4

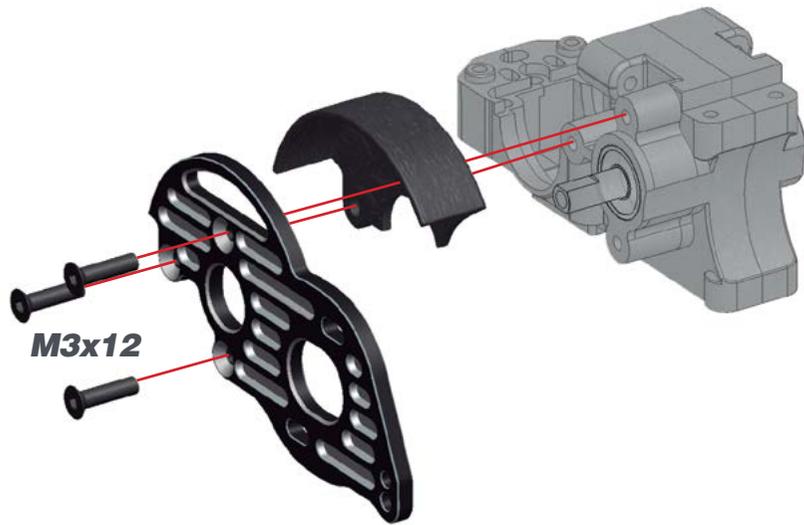


M2.3x4



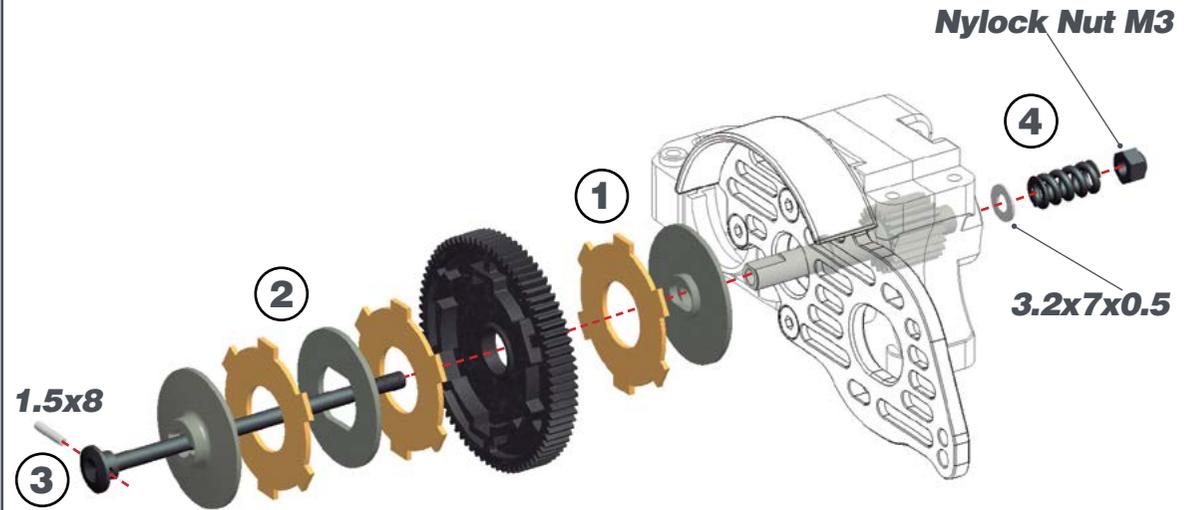
5x10x4

STEP 19



M3x12

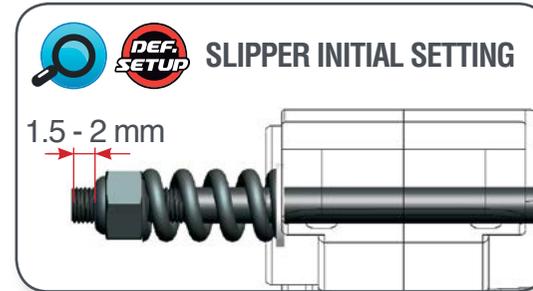
STEP 20



1.5x8

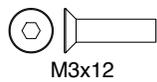
Nylock Nut M3

3.2x7x0.5



DEF. SETUP SLIPPER INITIAL SETTING

1.5 - 2 mm



M3x12



Nylock Nut M3

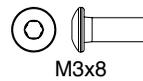
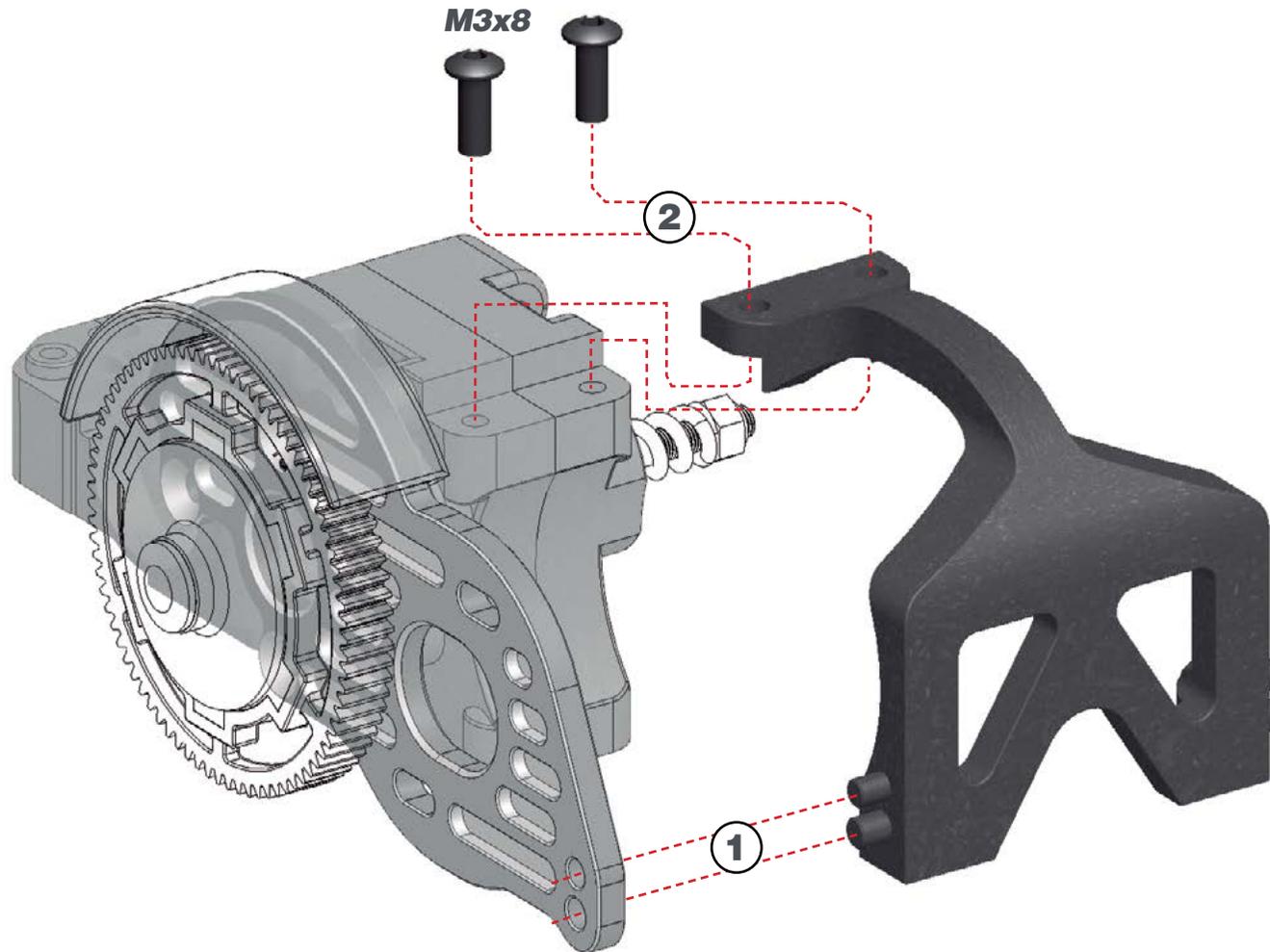


3.2x7x0.5



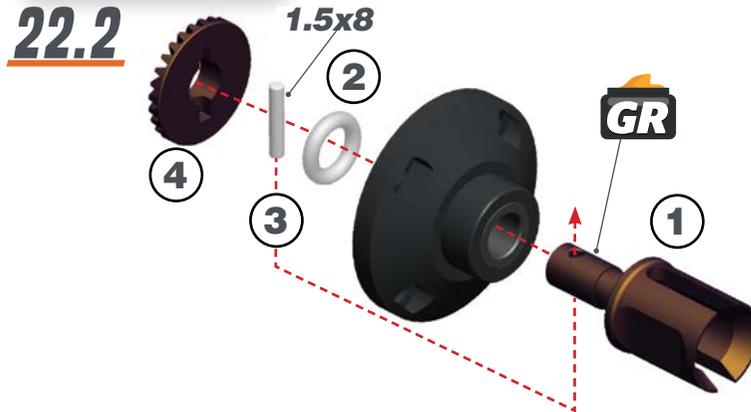
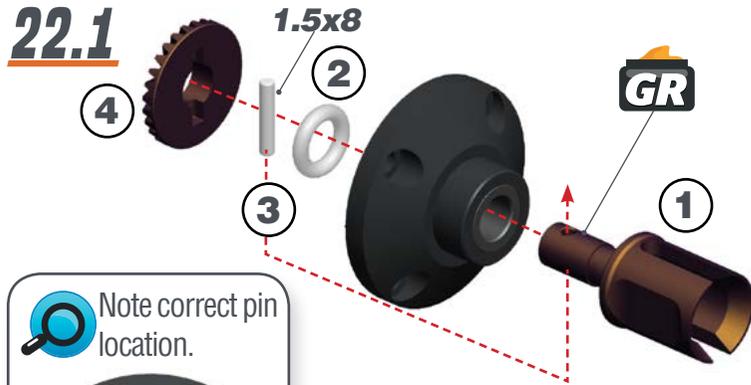
1.5x8

STEP 21



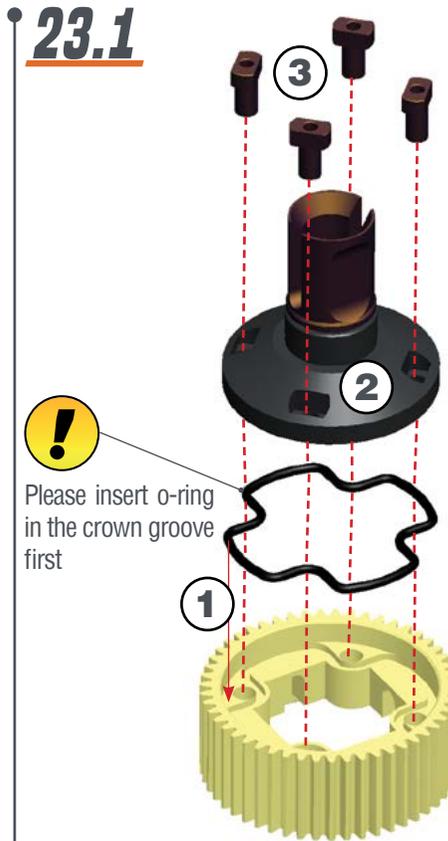
STEP 22

DIFF BAG RR

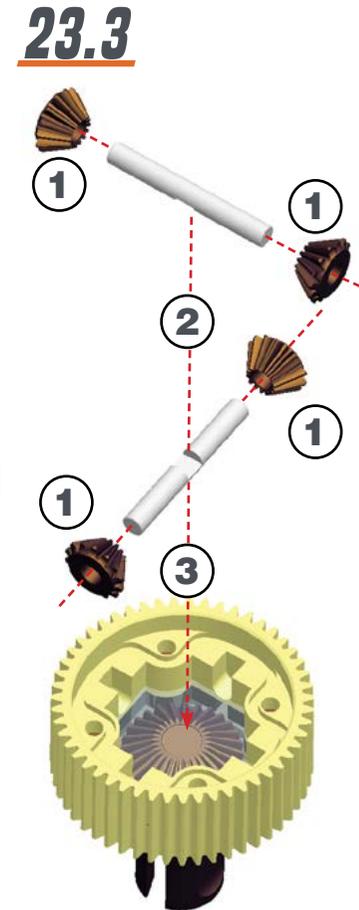


1.5x8

STEP 23



23.2 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 set-up-sheet.



STEP 24

24.1  Fit the o-ring before finishing the filling of the differential.



24.2  Fill the differential to the brim with silicone oil, do NOT overfill. Use the silicone oil supplied in the kit. For the correct cst value please check the default setupsheet.



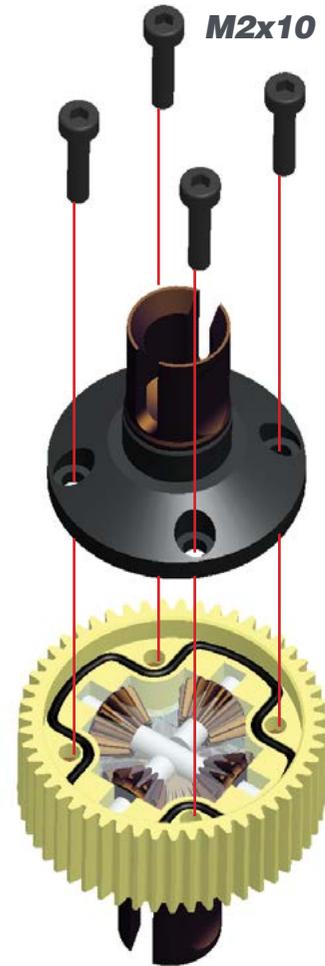
 **AMOUNT OF OIL IN THE DIFFS**

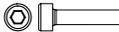
Use a digital scale to measure the exact amount of oil in the diff.

Differential weight should be 17.3 - 17.5 grams.



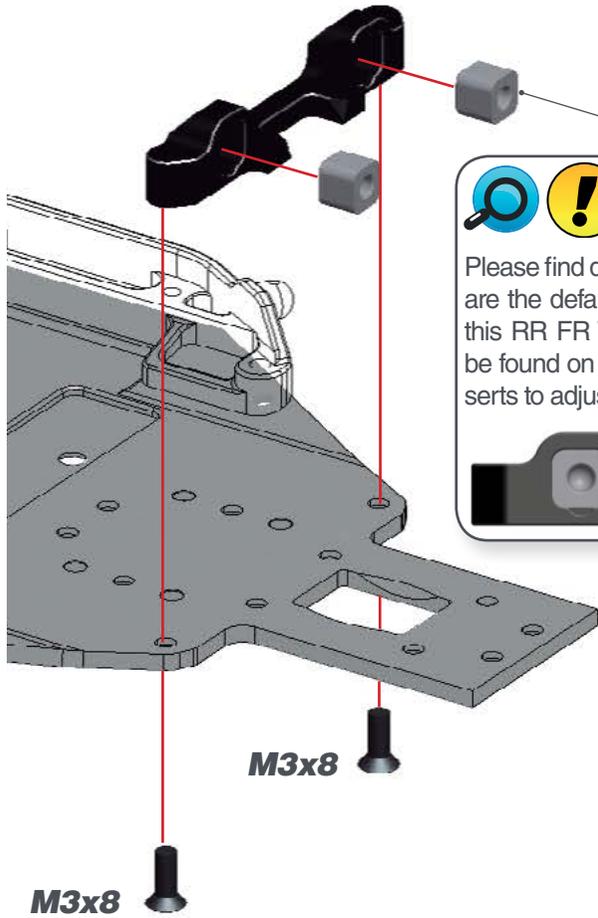
STEP 25




M2x10

STEP 26

BAG 7



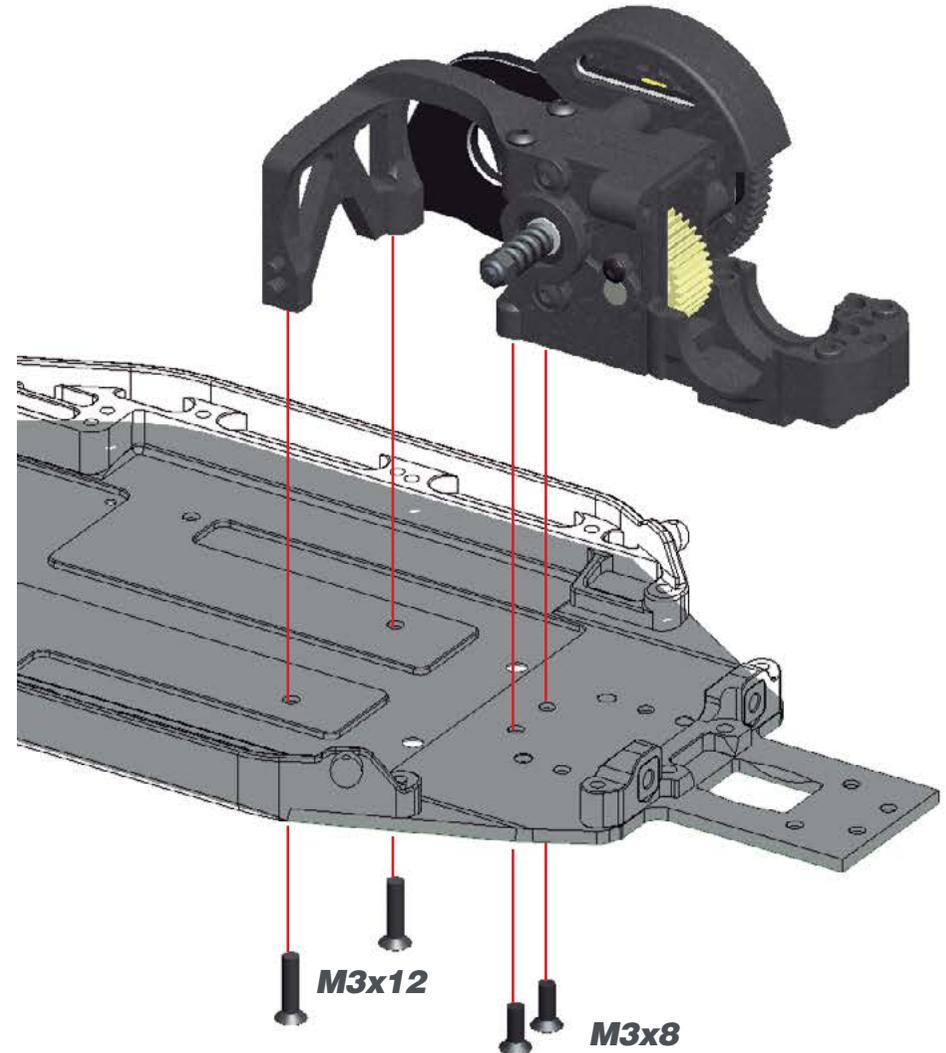
SUSPENSION INSERTS

Please find qty. 2 Centered Inserts. These 0 inserts are the default setup and should be installed into this RR FR Toe block. Additional information can be found on page 20, for how you can use the inserts to adjust toe-in, anti-squat, and pivot width.



M3x8

STEP 27

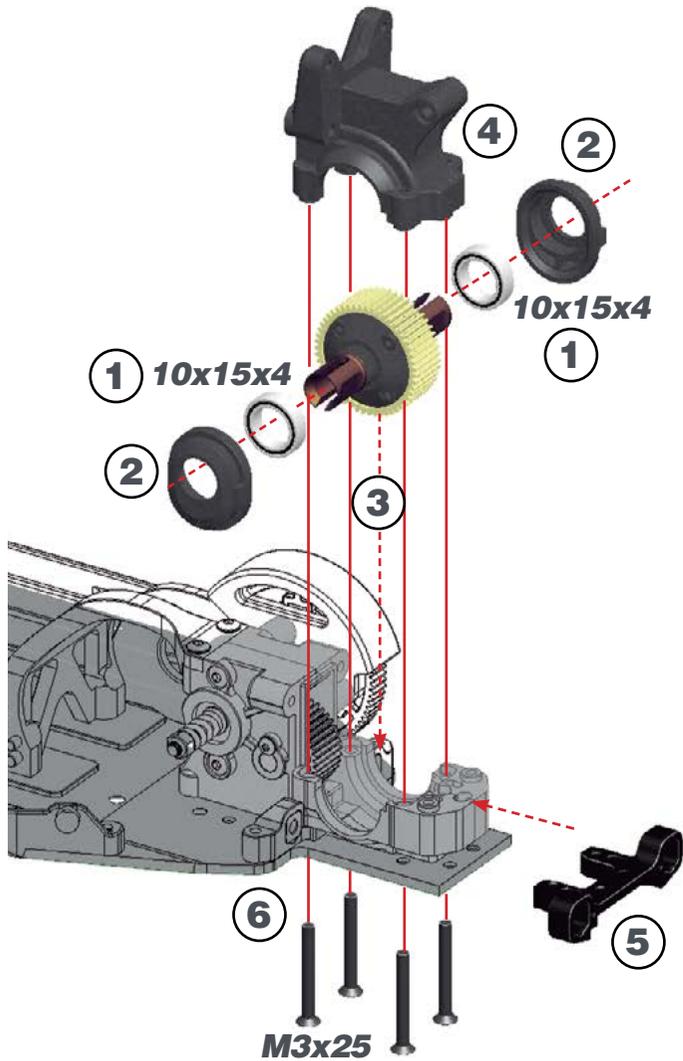


M3x8

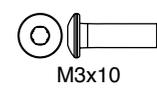
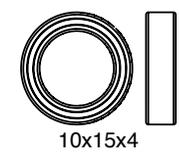
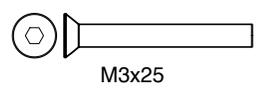
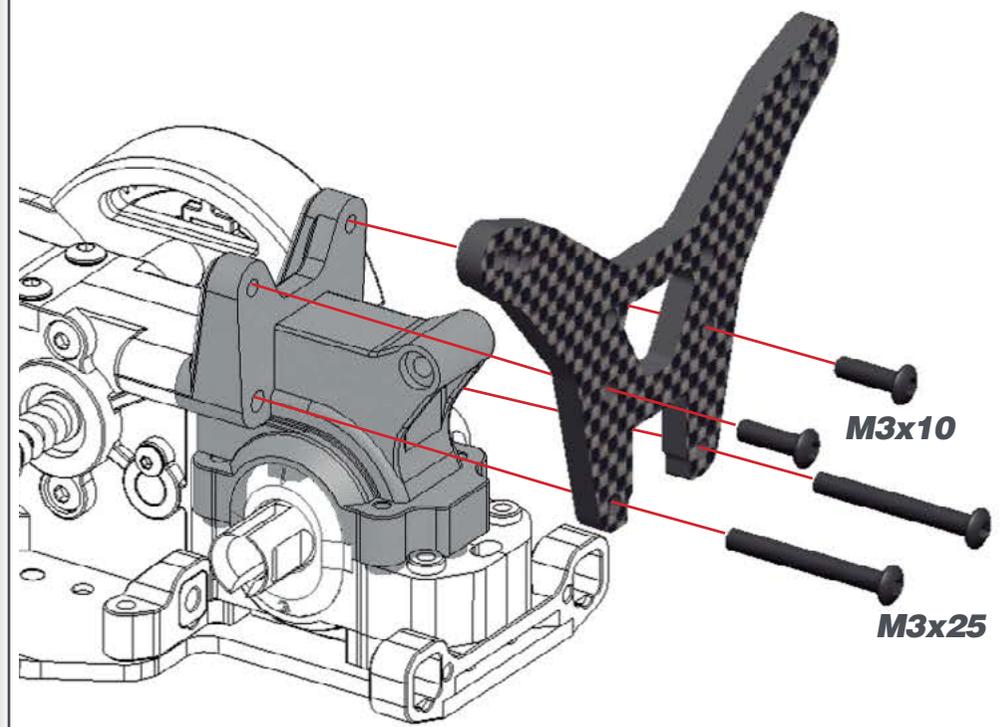


M3x12

STEP 28



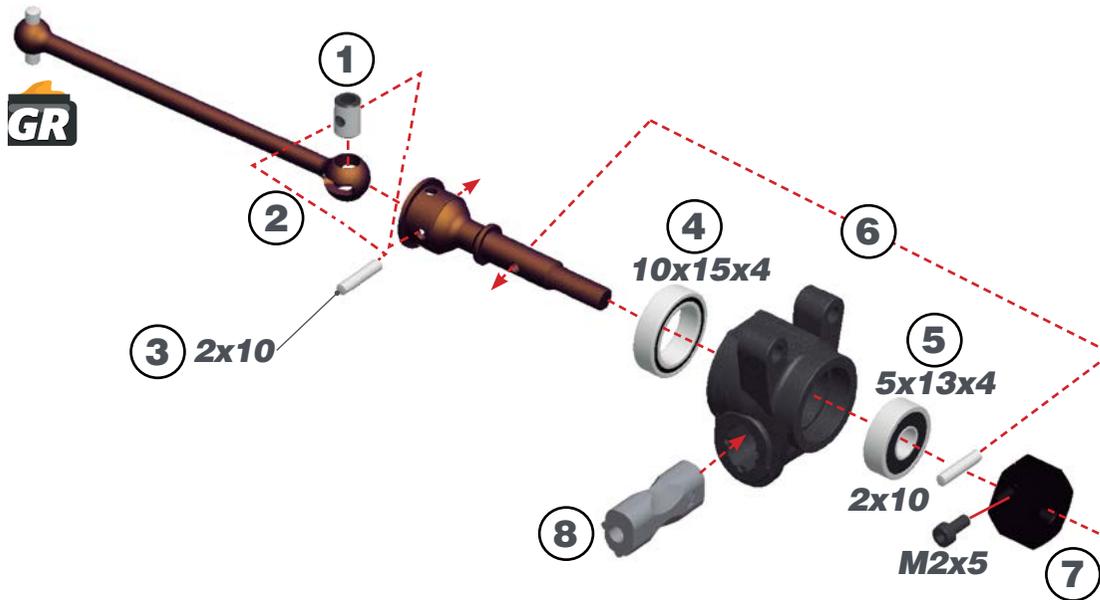
STEP 29



STEP 30

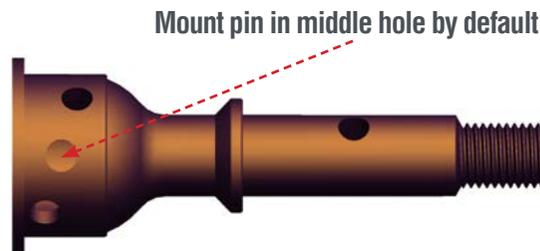
BAG 8

L=R



L=R REAR WHEEL-AXLE PIN FOR DRIVESHAFT POSITION

The axle has 3 pivoting choices. The shallowest hole will provide more chassis roll / less roll stiffness. The deepest hole will reduce chassis roll / increase roll stiffness. The center hole is recommended as its neutral.

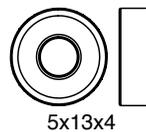
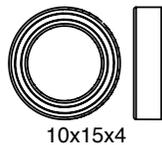


L=R REAR AXLE HEIGHT AND OFFSET INSERTS

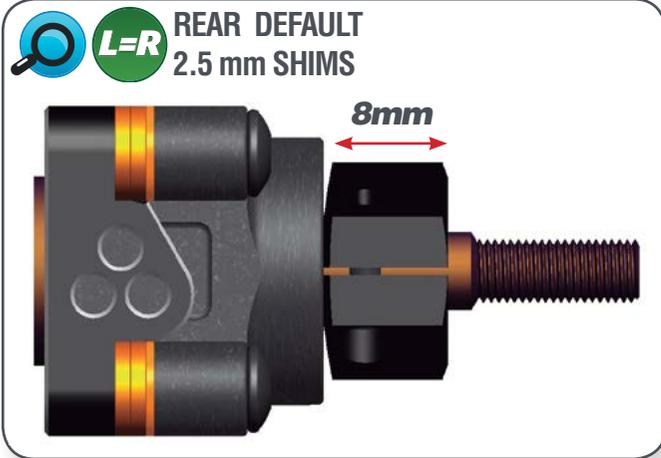
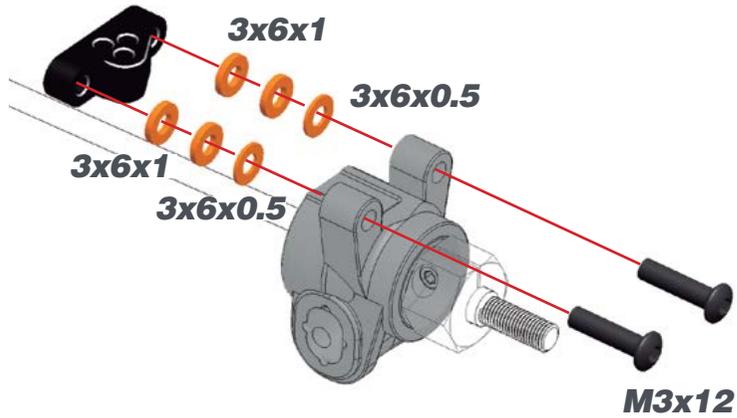
Wide Offset		Narrow			
L	R	L	R		
		0mm	0mm		
		0.5mm	0.5mm		
		1mm	1mm		
		1.5mm	1.5mm		
		2mm	2mm		
		2.5mm	2.5mm		
		3mm	3mm		

1) The axle height adjustment will give you the ability to adjust the roll center for various traction conditions. Typically in lower grip, you will run 0,+0.5,1 or 1.5mm / lower roll centers. In higher grip conditions you will want to use +2,2.5,3mm / higher roll centers.

2) The width offset will give you more versatility to adjust the track width, axle location and hex width. Especially useful when using Longer rear arm.

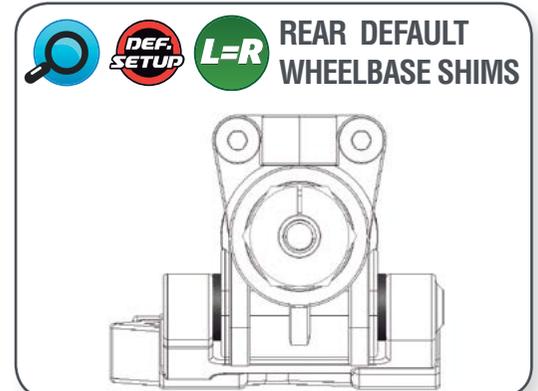


STEP 31

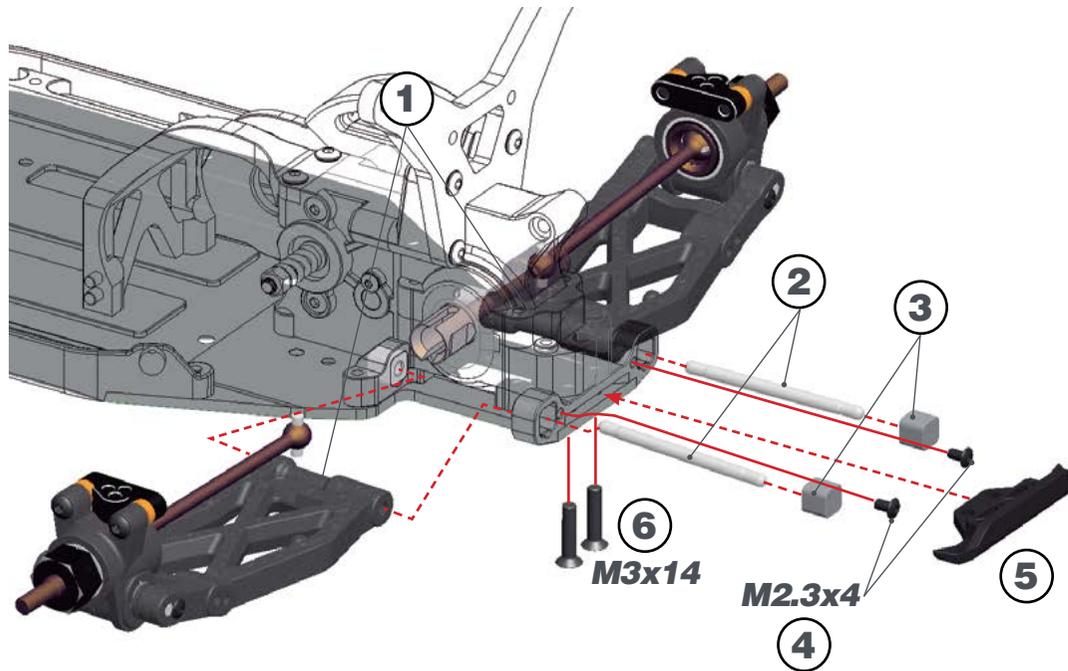


STEP 32 **BAG 9**

! Notice, the uprights are symmetrical, but the camber link mount has to have the proper orientation for Left and Right. Please check below the proper orientation.

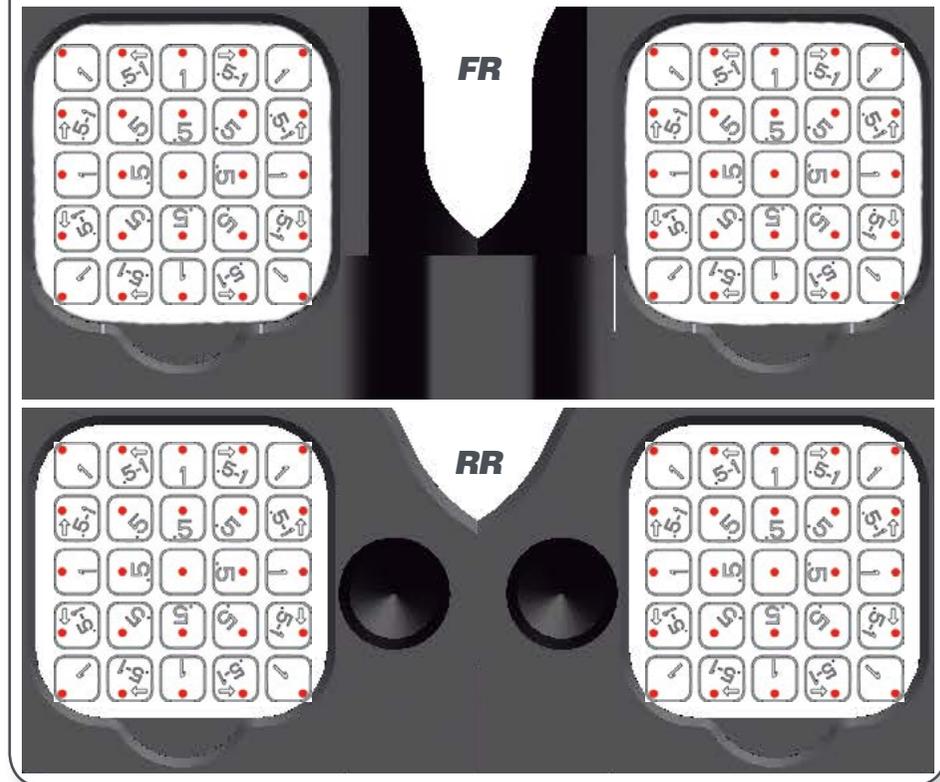


STEP 33



L=R SUSPENSION INSERTS

Below is a diagram of every possible orientation of the complete 7 inserts system. You are able to move 0.5 or 1 degree in any direction from center. We also have 2 special inserts to fill 0.5° left and right offset, by 1° height, as seen in the diagram. Depending on your setup, the range of toe in is 1°, up to 5°. The anti squat range is -1 (pro Squat) up to 3° anti-squat. The default is centered inserts in both the FR FR toe block and RR RR toe block. This produces 3° toe in and 1° anti squat.

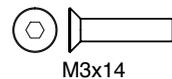


SIMPLIFIED EXPLANATION OF SUSPENSION INSERTS

Example A: RR FR toe block inserts are 0°, RR RR toe block inserts are also 0°. This instance will produce 3° toe in and 1° anti-squat. This is default setting.

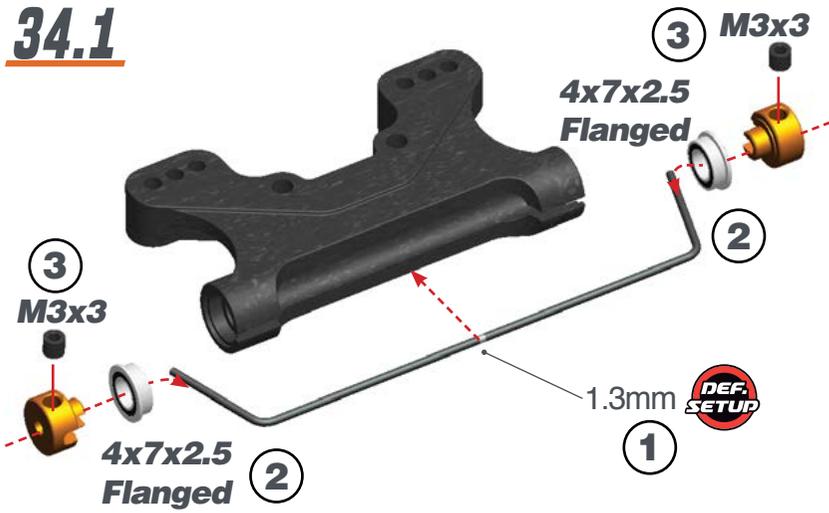
Example B: RR FR toe block inserts have been changed to centered 0.5° UP. The inserts in the RR RR toe block remain 0°. This will produce 3° toe in and 1.5° anti-squat.

Example C: RR FR toe block inserts remain 0°. The RR RR toe block inserts have been changed to 0.5° centered inward. This will product 2.5° toe in and 1° anti-squat.

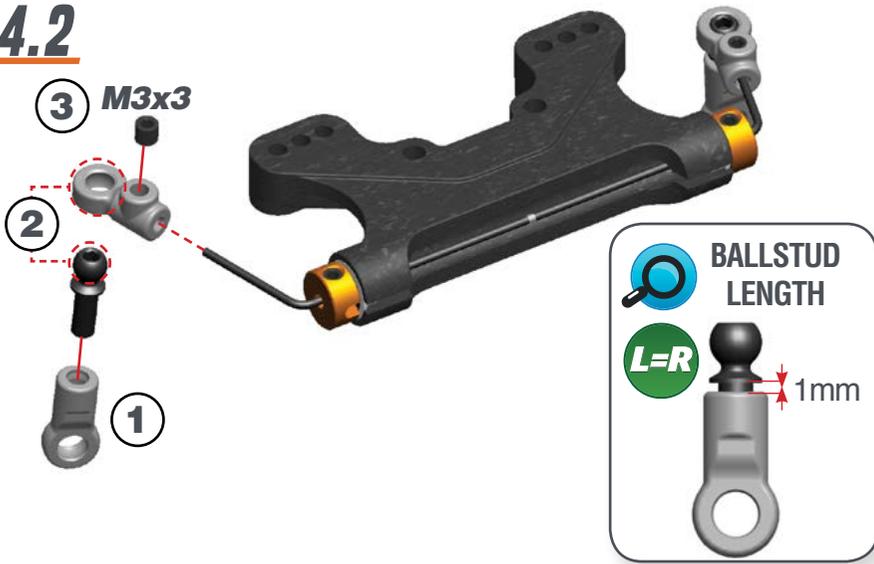


STEP 34

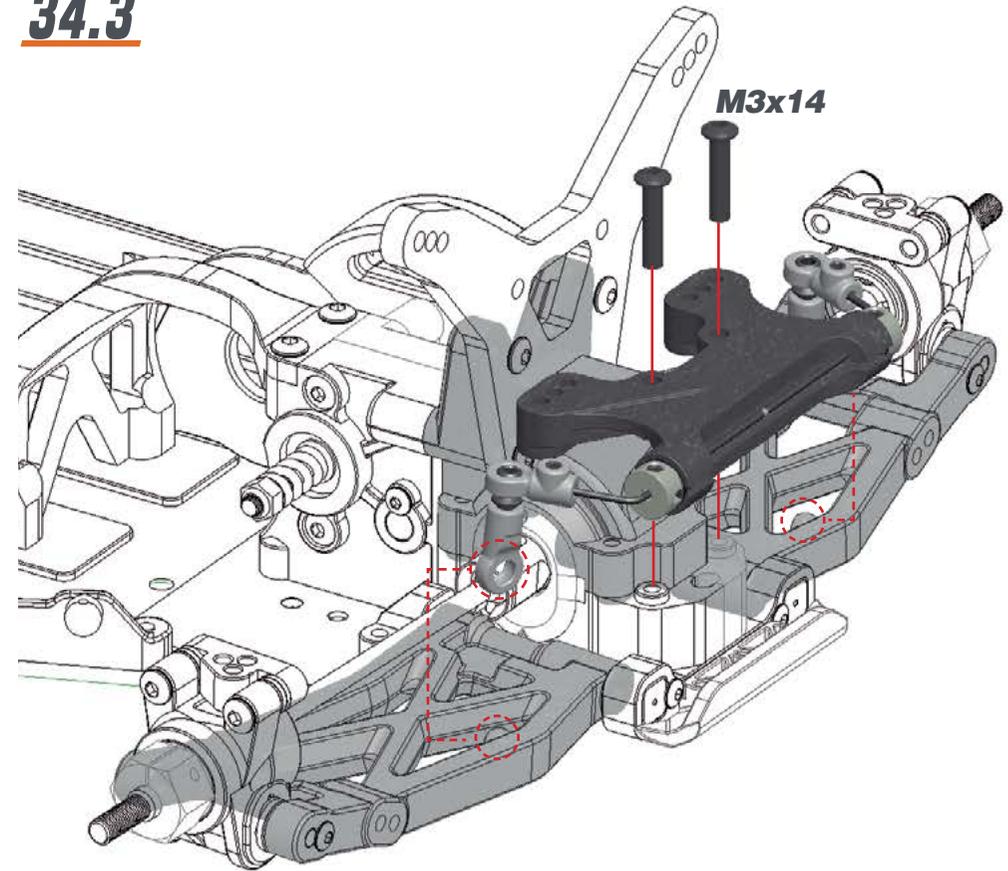
34.1



34.2



34.3



STEP 35

35.1



DEF. SETUP REAR CAMBERLINK LENGTH

L=R 27.9 mm

BALLSTUD LENGTH

18.65mm 14.65mm

35.2

18.65mm

14.65mm

3x6x1

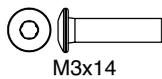
3x6x0.5

DEF. SETUP CAMBERLINK INNER DEFAULT POSITION

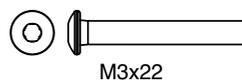
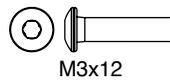
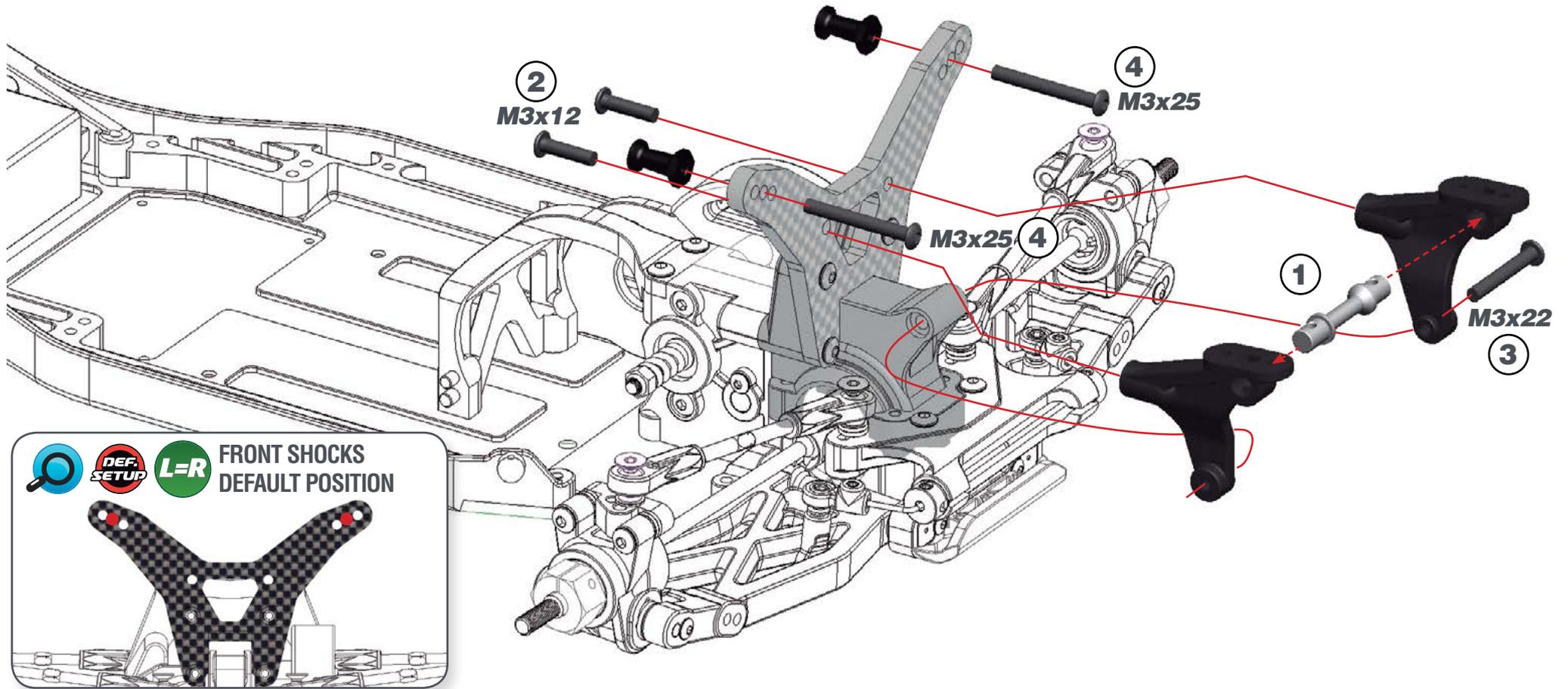
L=R

DEF. SETUP CAMBERLINK OUTER DEFAULT POSITION

L=R



STEP 36

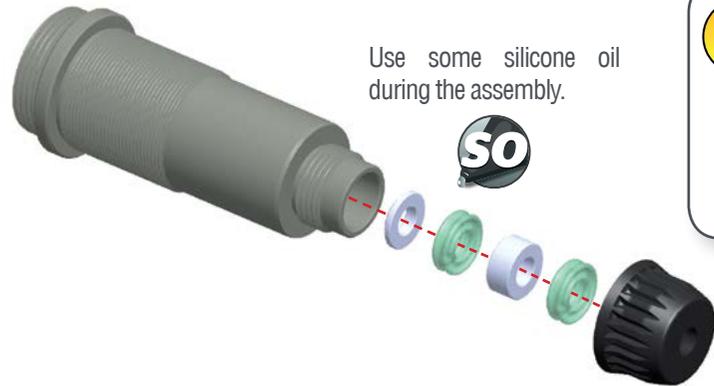


STEP 37

BAG 10 FR SHOCKS / BAG 11 RR SHOCKS

STEP 38

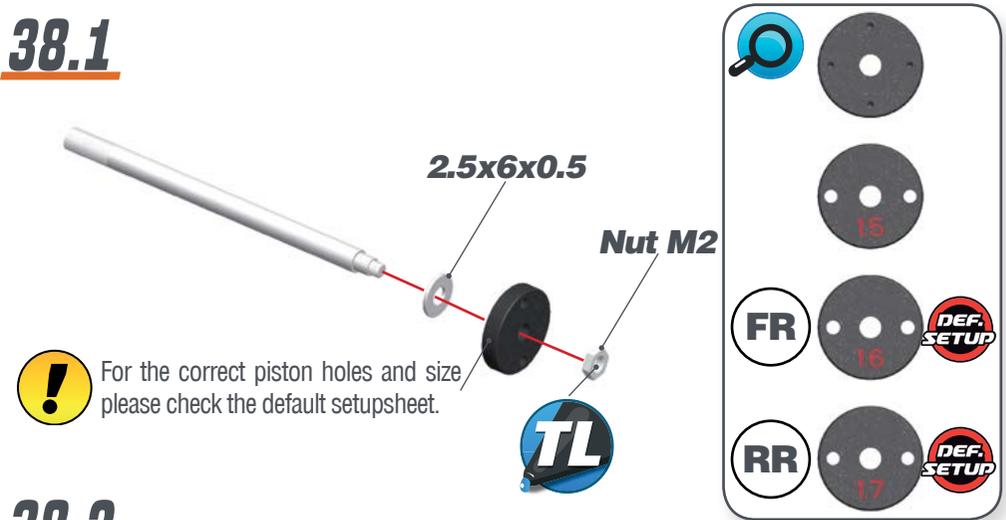
37.1



37.2



38.1



38.2



STEP 39

39.1

1- Fill up with silicone oil fully using the silicone oil supplied in the kit. For the correct cst value please check the default setupsheet.

2- Extend the shockrod fully

3- Move the shockrod slowly up and down to let ALL air bubbles escape.

4- Apply the gasket and cap and close fully.



39.2

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

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

M2.3x4



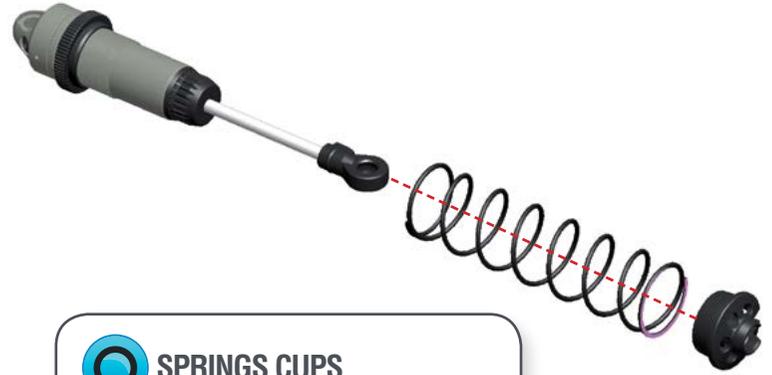
SHOCKS LENGTH: Measure the shock length fully extended.

FRONT REAR



STEP 40

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



SPRINGS CUPS

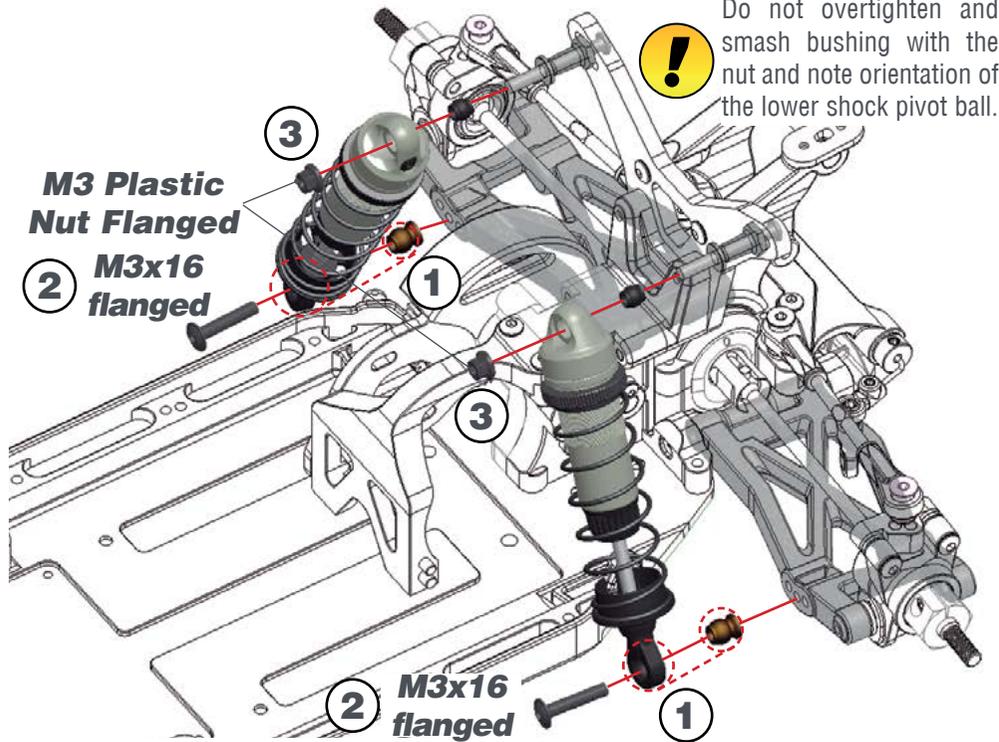
FRONT HIGH REAR LOW



M2.3x4

STEP 41

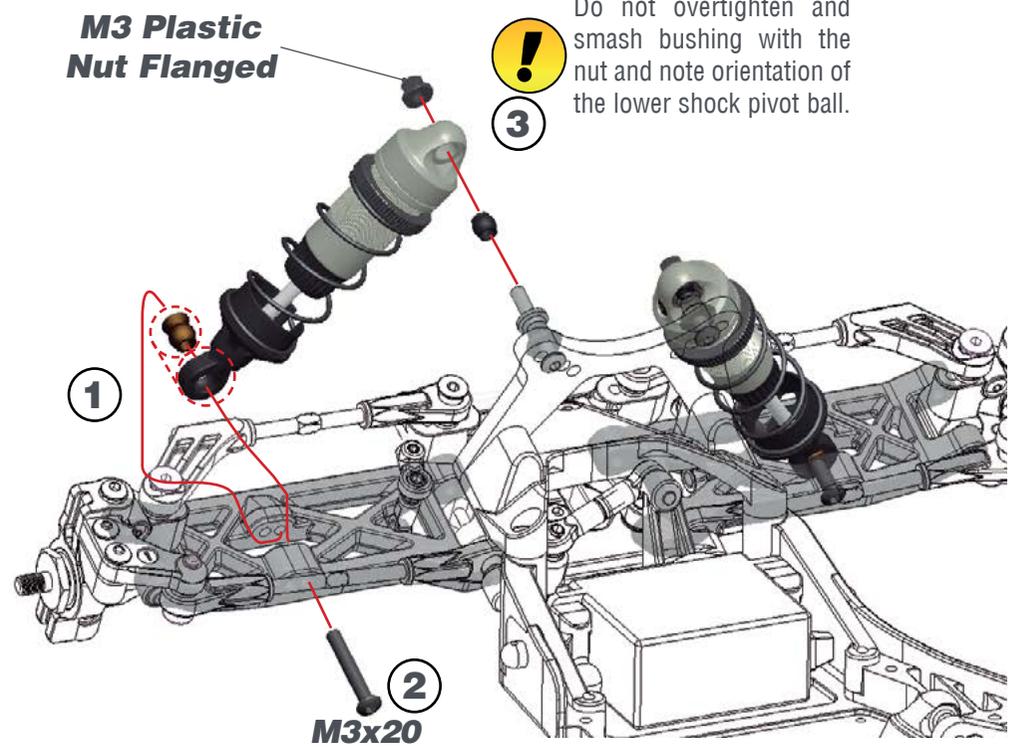
BAG 12



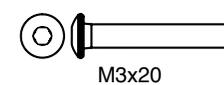
REAR SHOCKS
DEFAULT POSITION



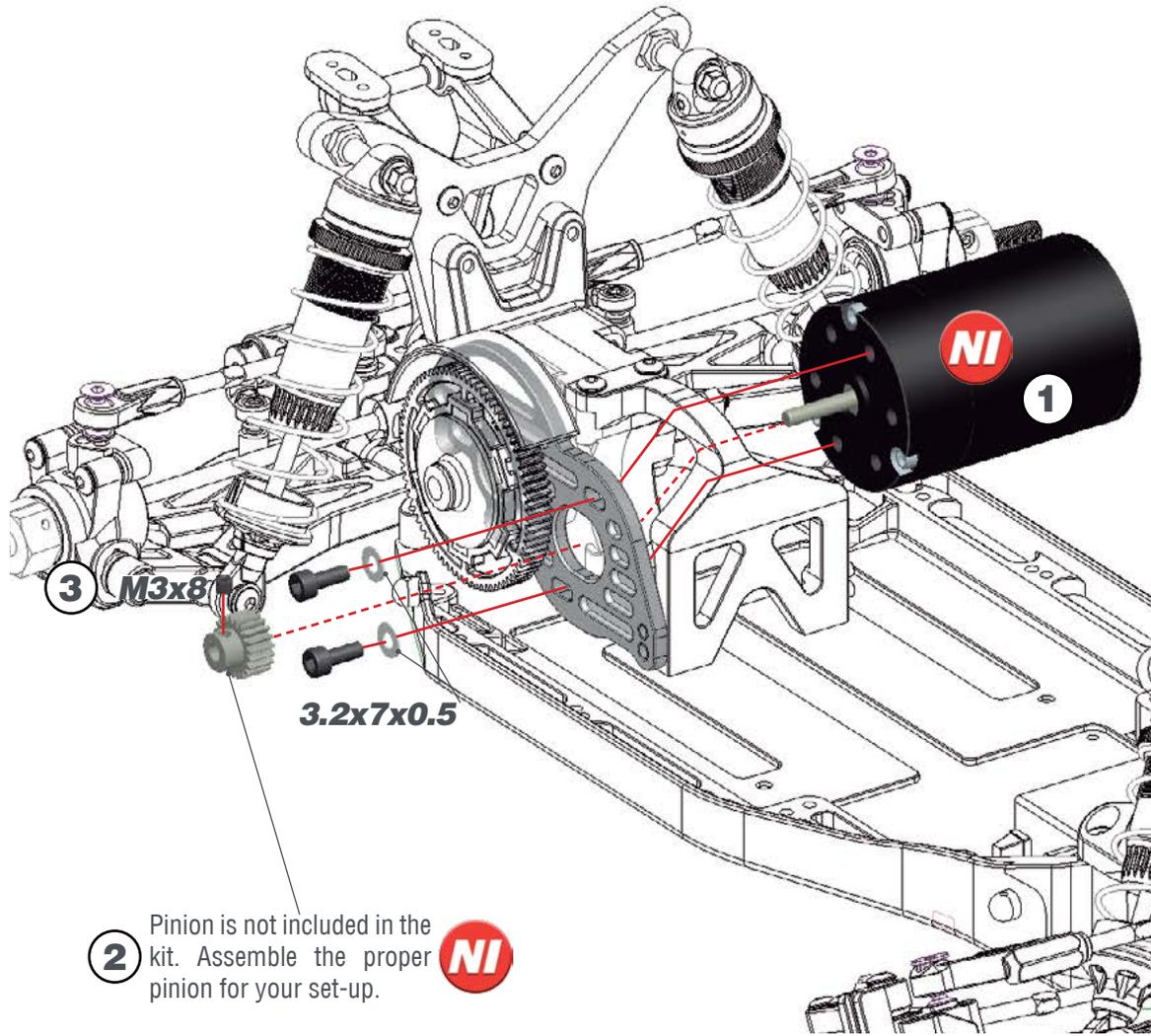
STEP 42



FRONT SHOCKS
DEFAULT POSITION



STEP 43



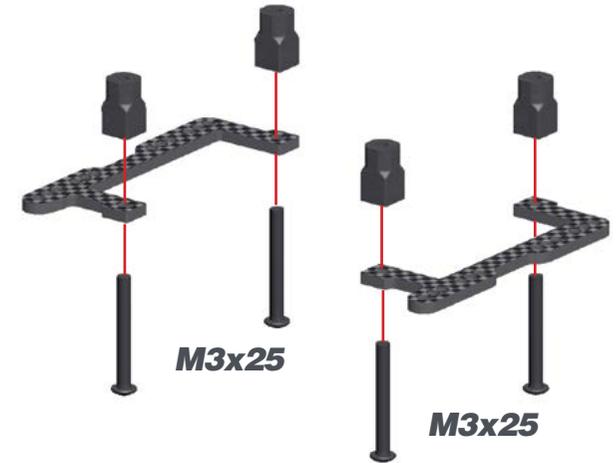
3 M3x8

3.2x7x0.5

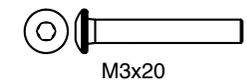
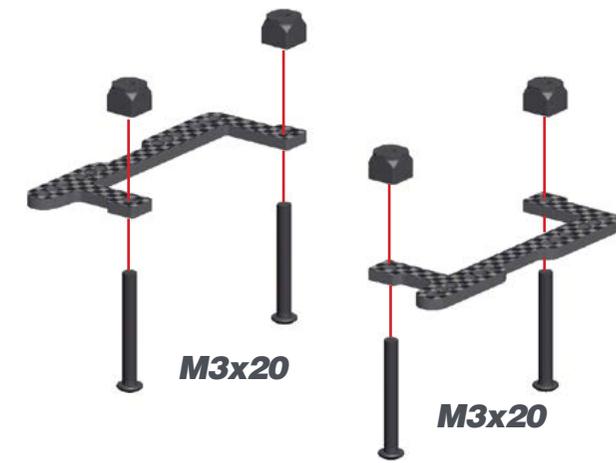
2 Pinion is not included in the kit. Assemble the proper pinion for your set-up.

STEP 44

Provided in the kit are long and short battery posts. Use long posts with STANDARD SIZE shorty batteries.



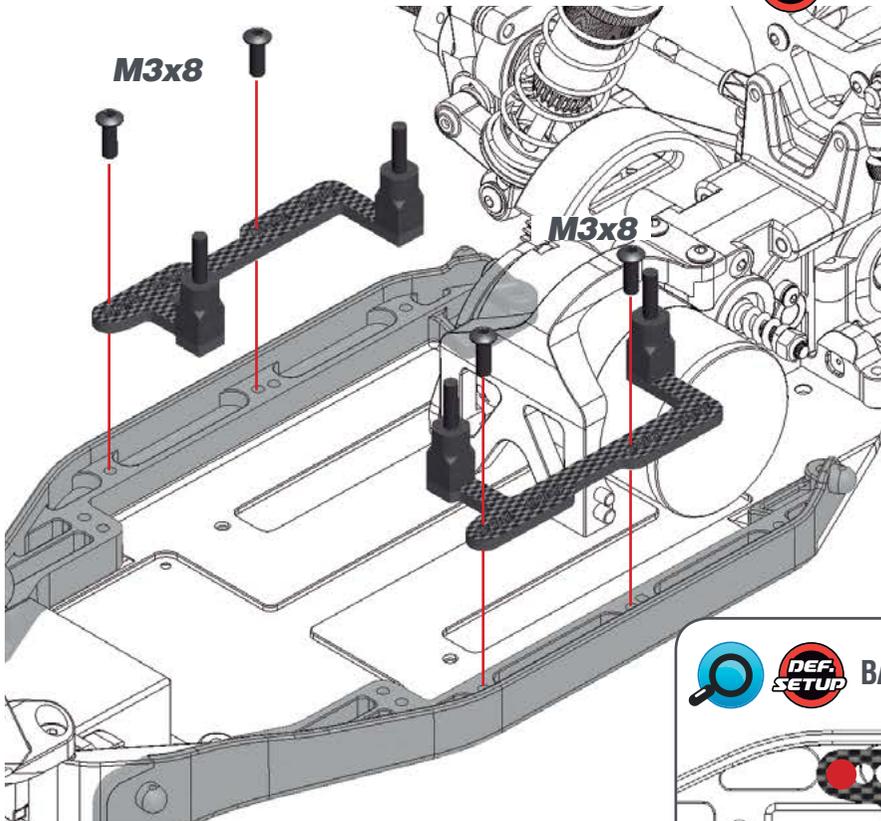
Use short posts with LOW PROFILE / THIN batteries.



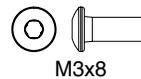
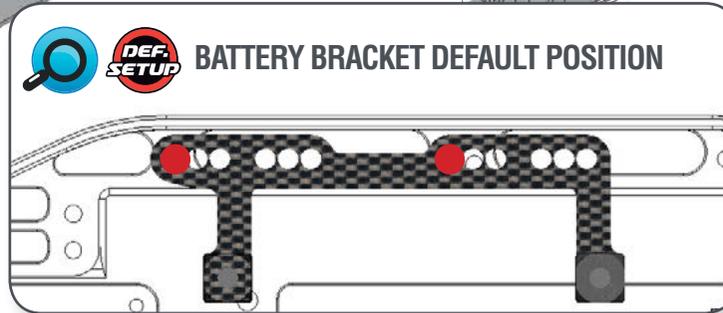
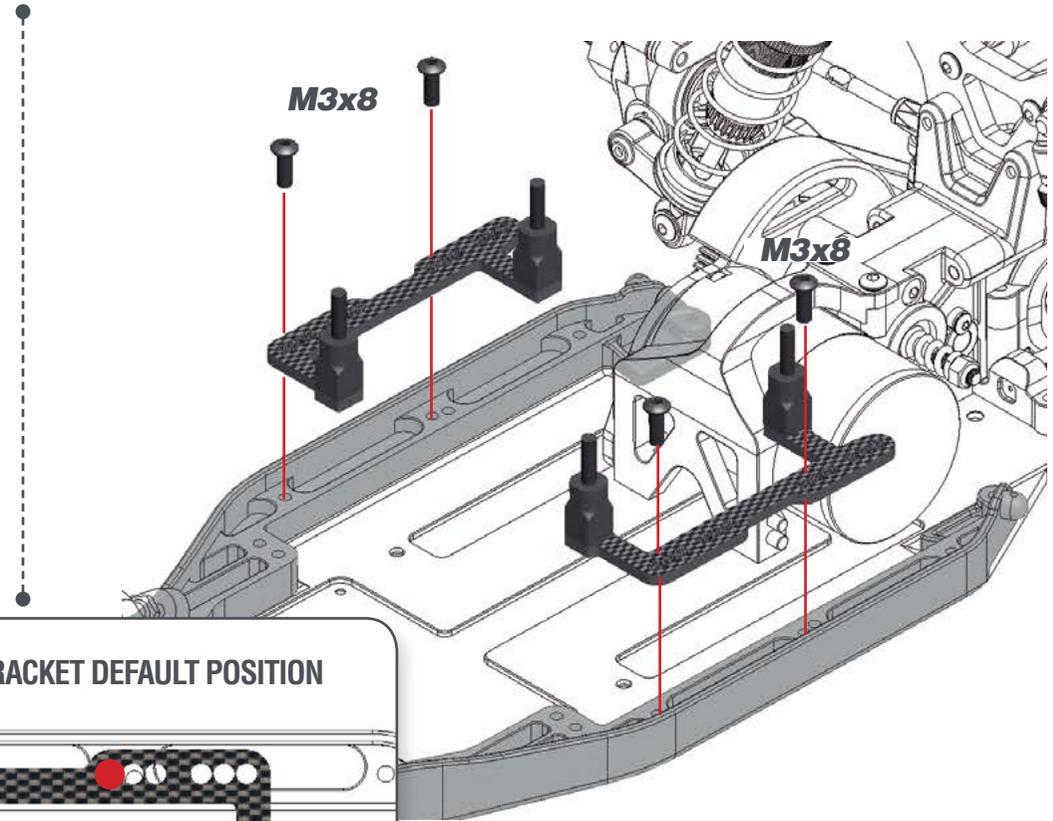
STEP 45

! The SRX2 GEN3 TEAM allows the battery position to be adjusted in six different locations. In order to use the three rearward positions the battery brackets have to be assembled as shown in configuration A. To use the three forwards positions the battery brackets have to be assembled as shown in the configuration B.

45A REARWARD BATTERY CONFIGURATION **DEF. SETUP**

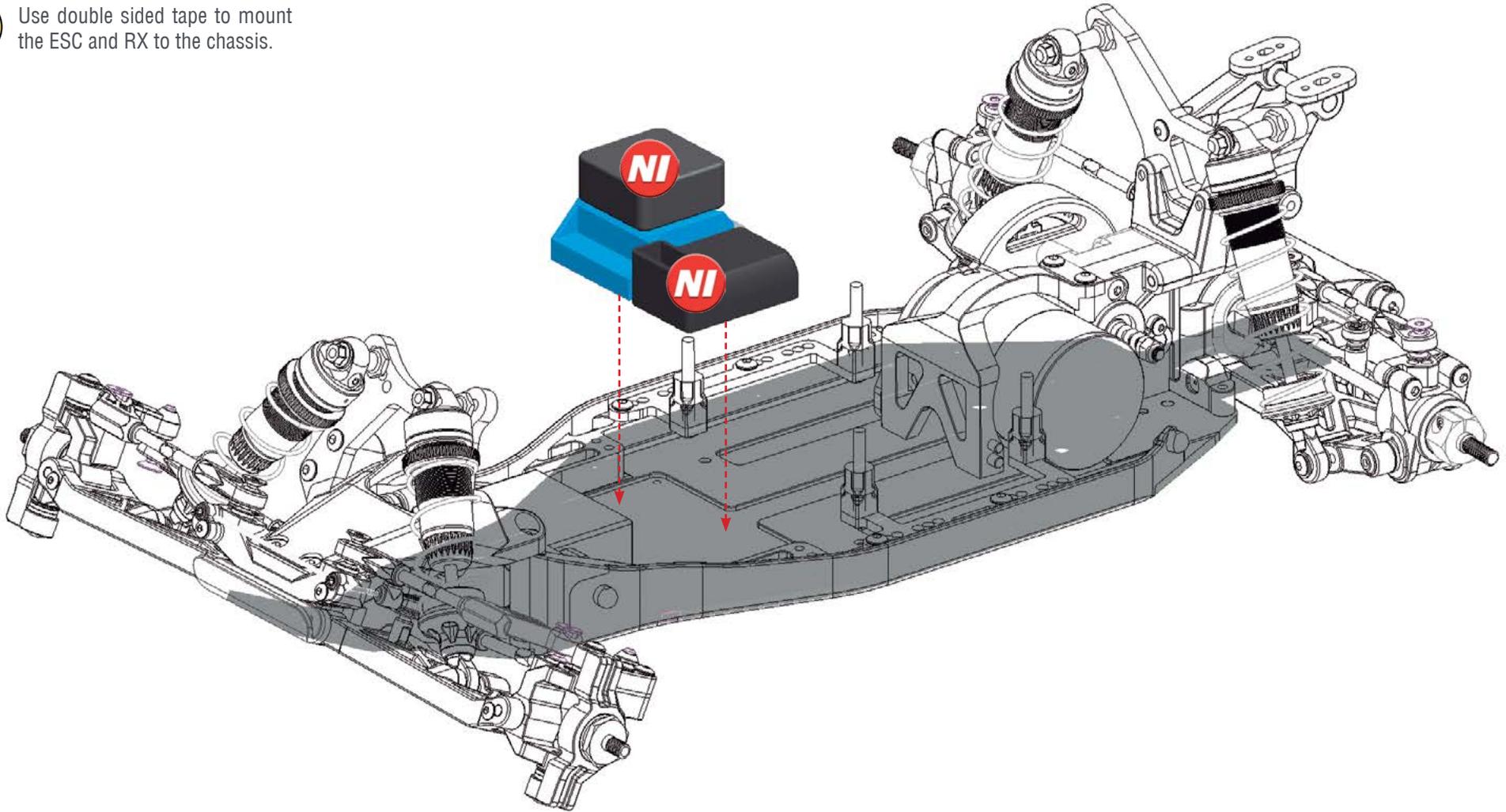


45B FORWARD BATTERY CONFIGURATION

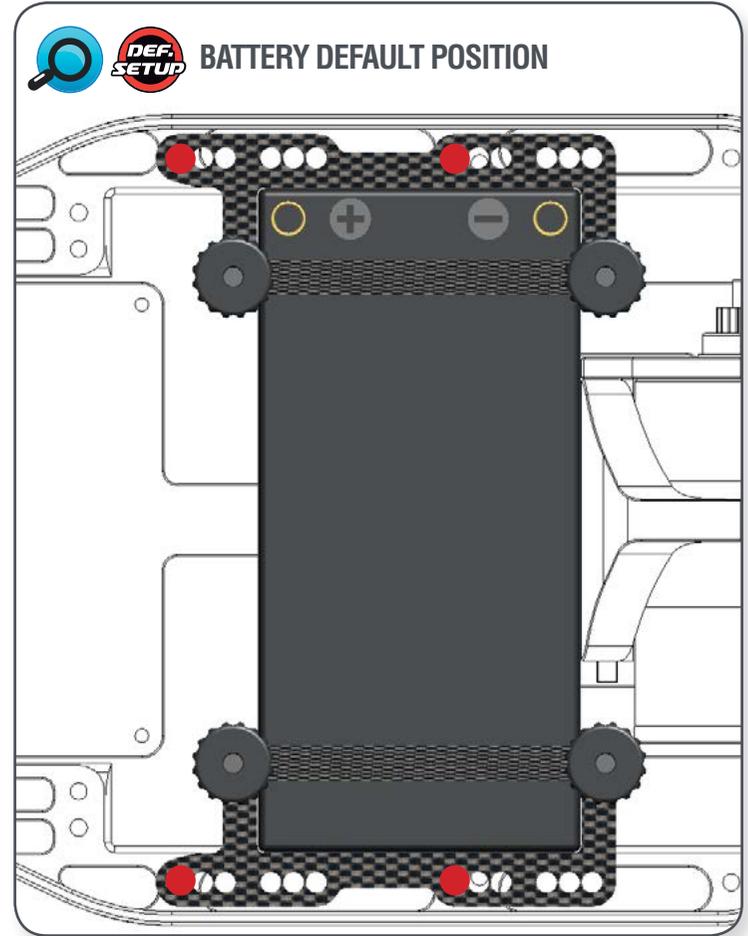
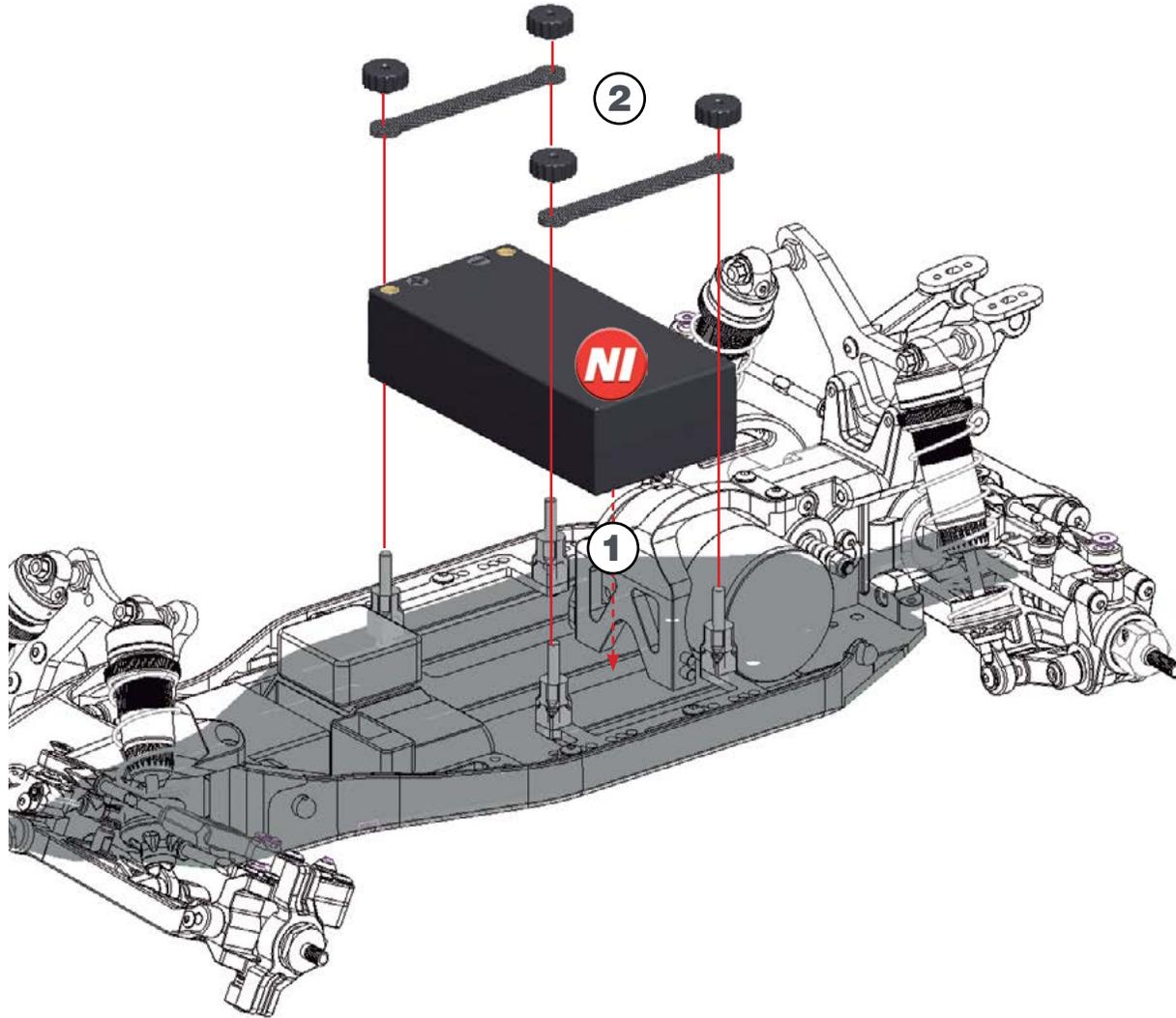


STEP 46

! Use double sided tape to mount the ESC and RX to the chassis.

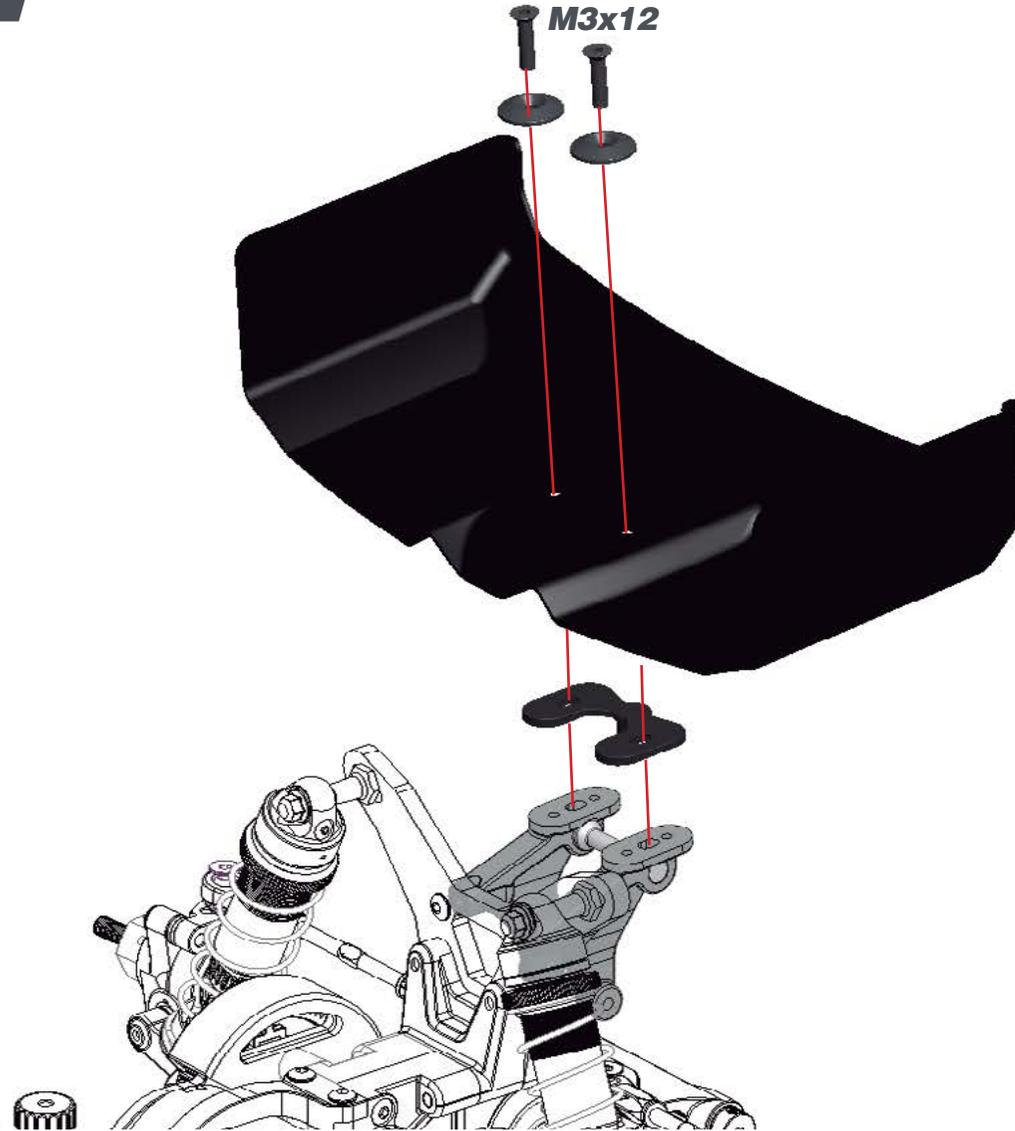


STEP 47



STEP 48

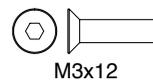
BAG 13



ANGLED WING SPACERS CHART

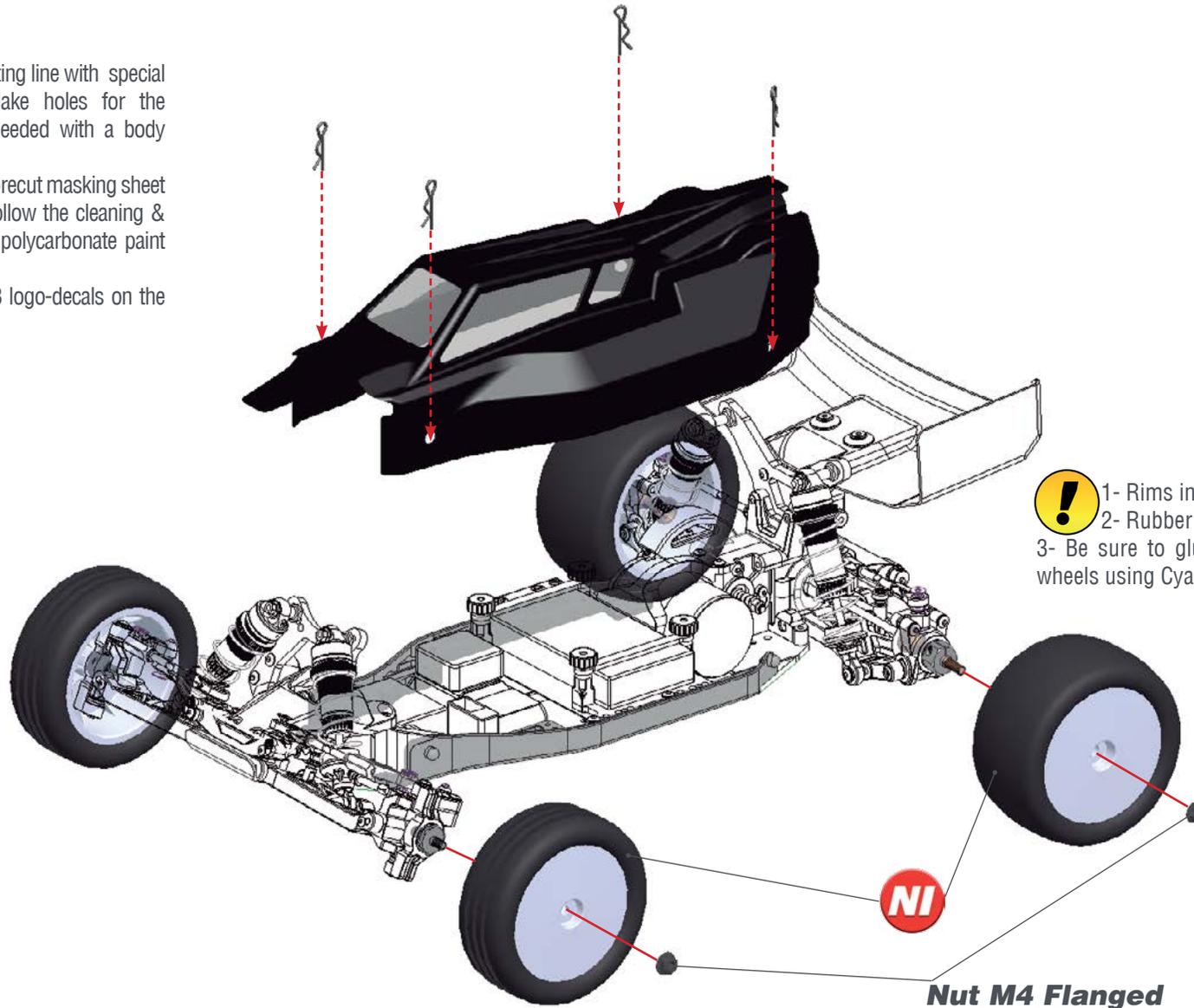
0°		
2°		DEF. SETUP
4°		
6°		
8°		

FRONT ↔ **REAR**



STEP 49

- !** 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).
- 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 SRX2-Gen3 logo-decals on the body and wing.



- !** 1- Rims included in the kit.
- 2- Rubber tyres not included in the kit.
- 3- Be sure to glue your rubber tyres to the wheels using Cyanoacrylate glue.



Body Clip



Nut M4
Flanged

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DIFFERENTIAL EXPLODED VIEW

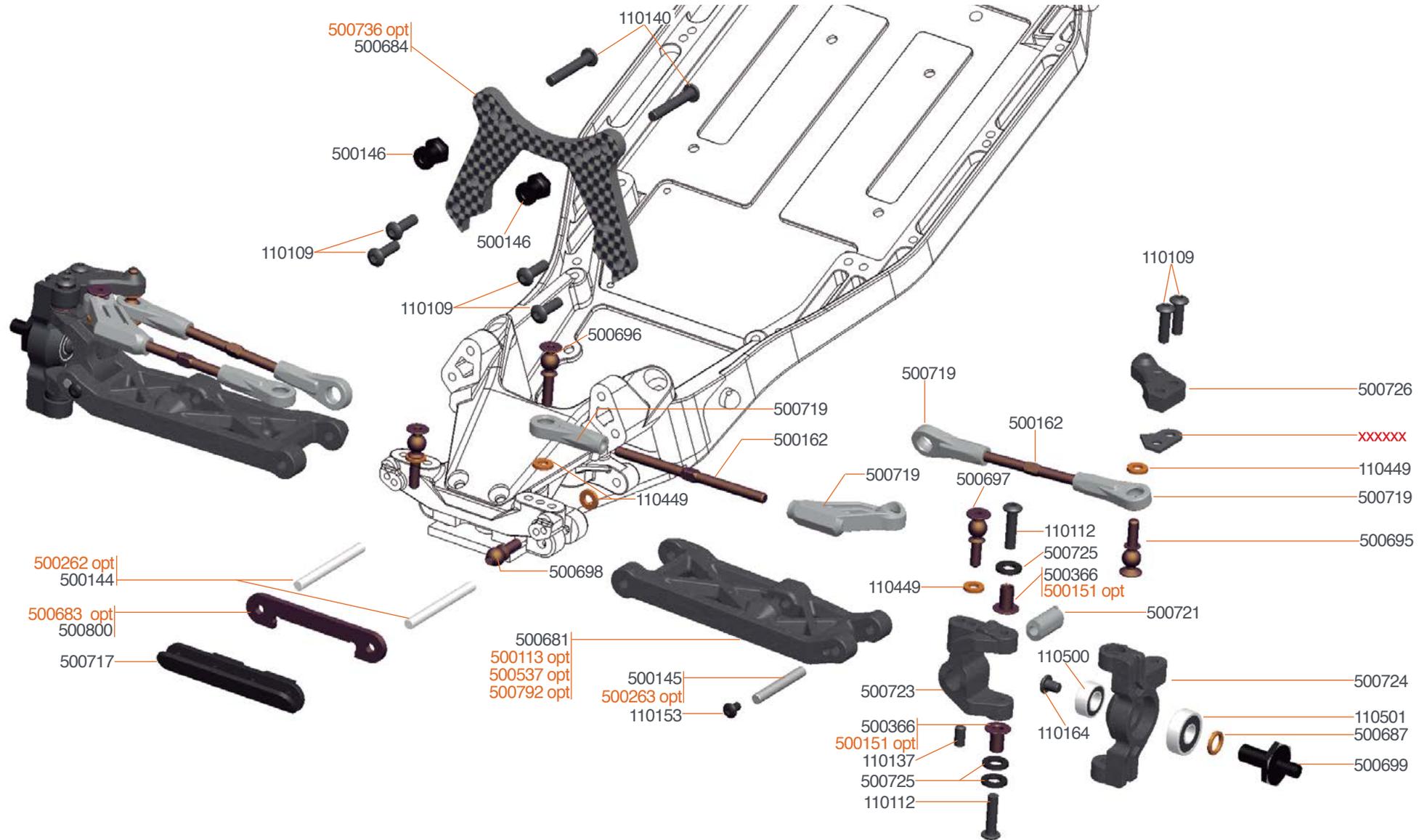


411107 Diff balls. 1/8 ceramic (12)
 500259 Differential balls carbide 1/8
 500256 Thrustbearing carbide balldiff SRX2
 500781 Geardiff housing 51T LF SRX2 Gen3

500782 Diff pully balldiff 51T LF SRX2 Gen3
 500791 Balldiff set 51T SRX2 Gen3
 500793 Geardiff nut alu (4) SRX2
 500794 Diff pin 14T alu (2) SRX2

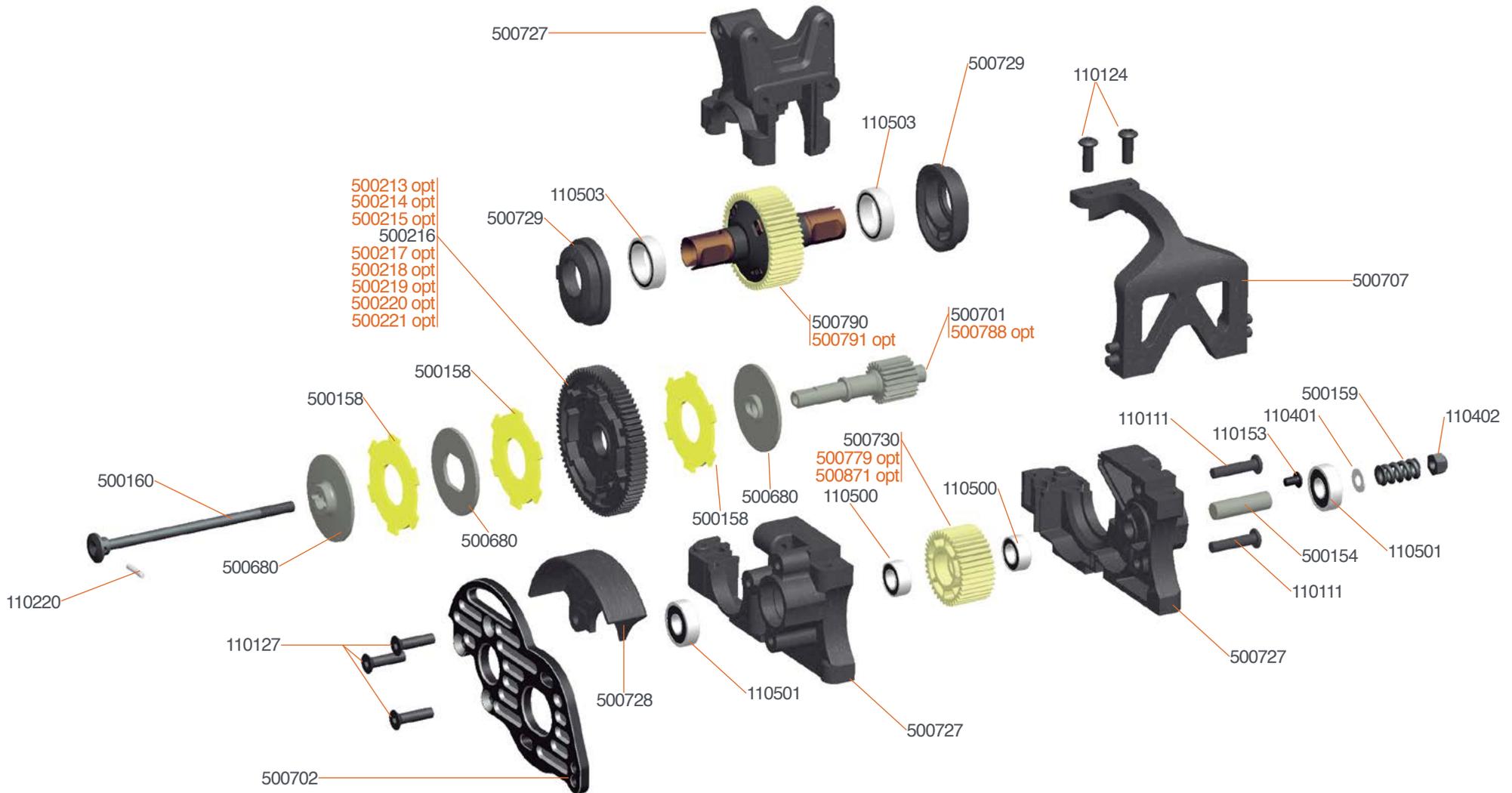
500876 Geardiff outdrive SRX2 (2) V2
 500877 Geardiff X-shaft alu SRX2

FRONT EXPLODED VIEW



- 500113 Wishbone fr L+R SRX2
- 500151 Casterblock bushing (4) SRX2
- 500262 Pivot pin fr inner / rr outer TiN coated (2) SRX2
- 500263 Pivot pin fr outer TiN coated (2) SRX2

- 500537 Wishbone fr L+R SRX2 hard
- 500683 Pivot pin brace fr SRX2 Gen3
- 500736 Shocktower fr gull arm carbon SRX2 Gen3
- 500792 Wishbone straight fr L+R hard SRX2 Gen3



500213 opt
500214 opt
500215 opt
500216
500217 opt
500218 opt
500219 opt
500220 opt
500221 opt

500790
500791 opt

500730
500779 opt
500871 opt

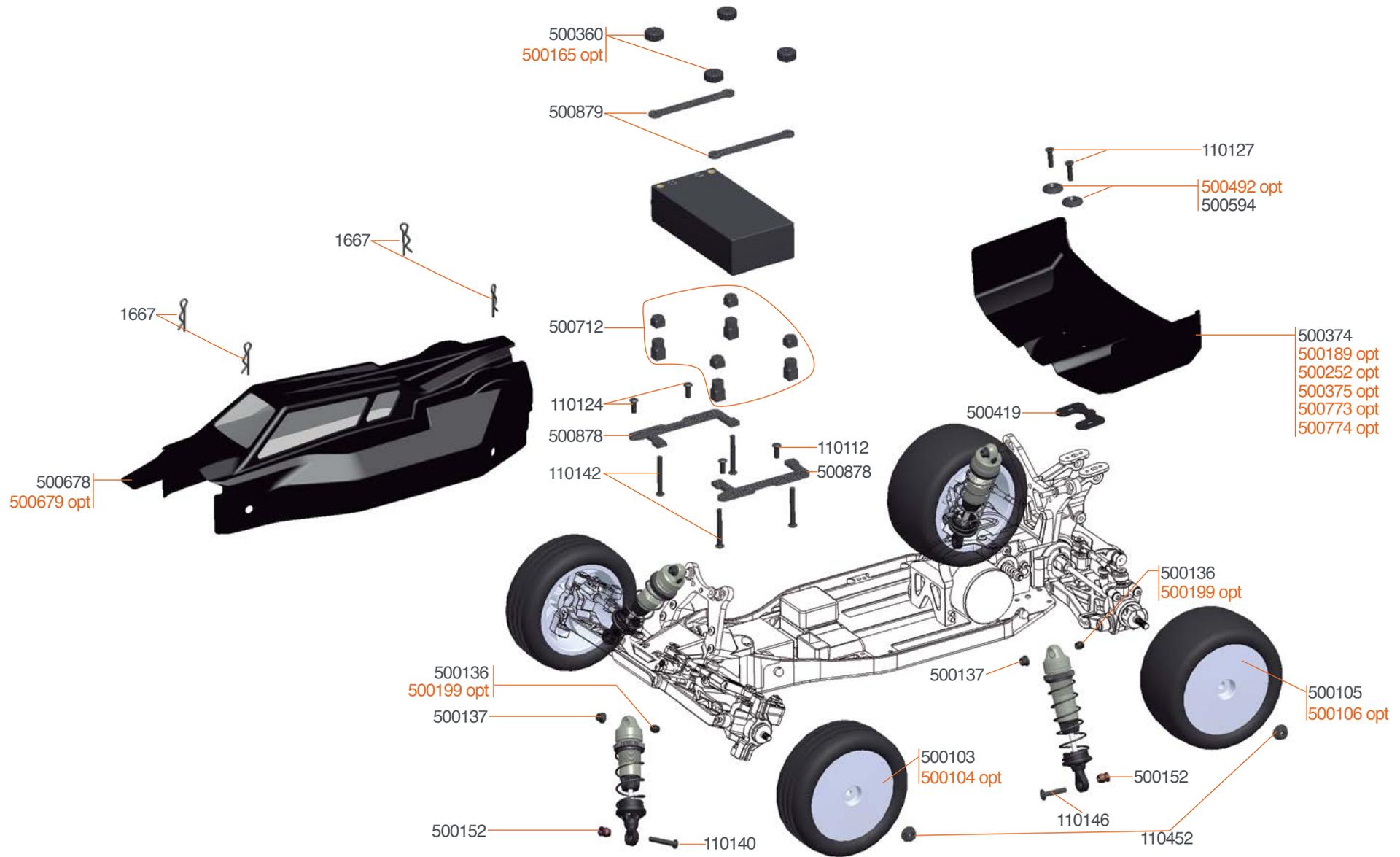
500779 Idler gear 39T LF SRX2 Gen3
500788 Topshaft 21T alu stock SRX2 Gen3
500789 Spurgear adaptor stock SRX2 Gen3
500791 Balldiff set 51T SRX2 Gen3

500871 Idler gear 39T alu SRX Gen3



500213 Spur gear 70T SRX2
500214 Spur gear 72T SRX2
500215 Spur gear 76T SRX2
500217 Spur gear 80T SRX2

500218 Spur gear 82T SRX2
500219 Spur gear 84T SRX2
500220 Spur gear 86T SRX2
500221 Spur gear 88T SRX2



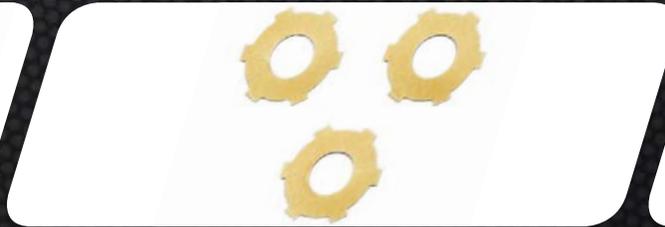
500165 Battery plate nut (4) SRX2
 500492 Wing washer alu srx 1/10 (2)
 500104 1/10 buggy rim fr 2wd yellow (2)
 500106 1/10 buggy rim rr yellow (2)
 500189 Rear wing 6.5

500199 Shock top bushing delrin (4) SRX2
 500252 Rear wing 7.0
 500375 Rear wing 7.0 (2)
 500165 Battery plate nut (4) SRX2
 500679 Body Spyder gen3 2wd lightweight 1/10

500764 Battery post high (2+2) alu SRX2 Gen3
 500765 Battery post low (2+2) alu SRX2 Gen3
 500773 Wing rr low SRX2 Gen3
 500774 Wing rr low wide SRX2 Gen3

TEAM SERPENT NETWORK

SRX2 Gen3 Team SPARE PARTS



SRX2 Gen3 Team OPTIONALS PARTS



SERPENT TOOLS



SERPENT MERCHANDISING



SERPENT WEBSITE AND BLOG

www.serpent.com

www.teamserpent.com

www.dragon-rc.com

SERPENT PROMO PAGES <http://promo.serpent.com>

SERPENT SOCIAL MEDIA



www.facebook.com/SerpentMRC

**INSTRUCTION
MANUAL**

**SRX2 TEAM
gen3**



Manual SRX2 Gen3 team #89767-1

SERPENT