

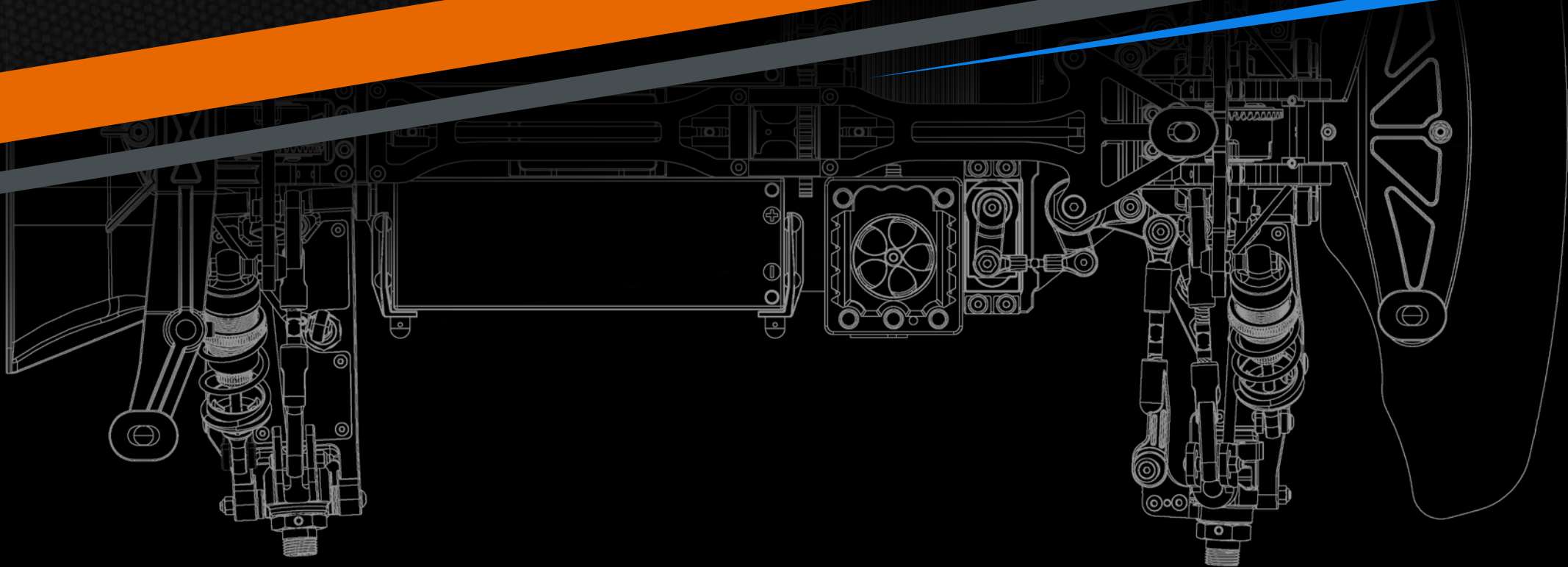
# INSTRUCTION MANUAL

# SRX8GT

LONG WHEEL BASE

1/8 SCALE

## Instruction Manual



# SERPENT

## 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 GTE is a state of the art 1/8 scale 4wd GT 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 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 Cobra SRX8 GTE. Fine-tuning the initial setup is an essential part of building a high-performance racecar like your Serpent Cobra SRX8 GTE.

## EXPLODED VIEWS AND PARTS LIST

The exploded views and parts lists for the Serpent Cobra SRX8 GTE 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. Optional 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](http://www.serpent.com) or you may ask your dealer or the Serpent distributor for advice, or email Serpent direct: [info@serpent.com](mailto: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.

## CONTENTS

•	FR/RR DIFF ASSEMBLY.....	4
•	CENTER SOLID AXLE ASSEMBLY.....	6
•	REAR ASSEMBLY.....	7
•	FRONT ASSEMBLY.....	12
•	CENTAL ASSEMBLY.....	17
•	STEERING ASSEMBLY.....	19
•	SHOCKS ASSEMBLY.....	23
•	FIAL ASSEMBLY.....	27
•		

## 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.



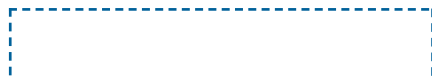
Step number; the order in which you should assemble the indicated parts



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.



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.



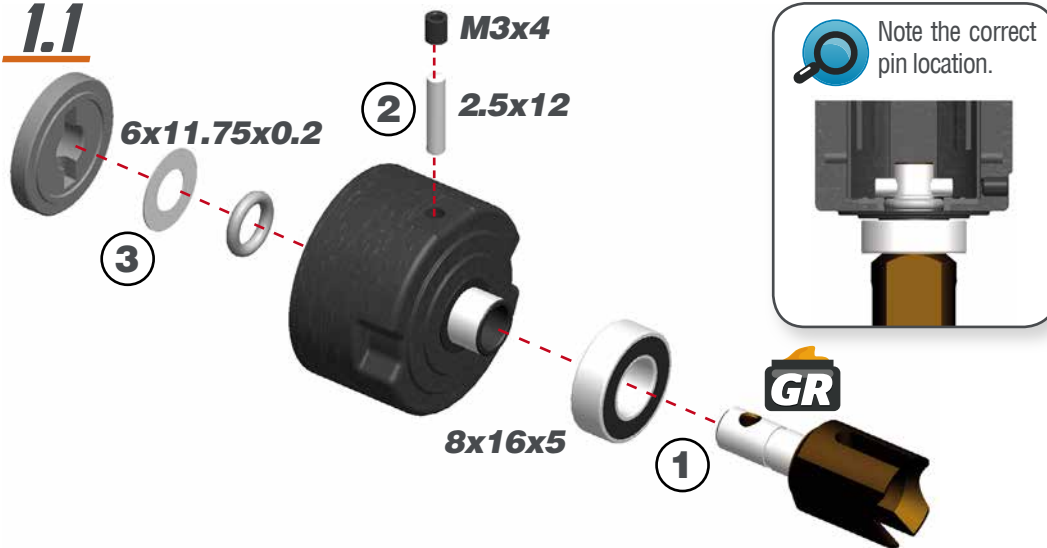
Optional part, not standard in the kit.



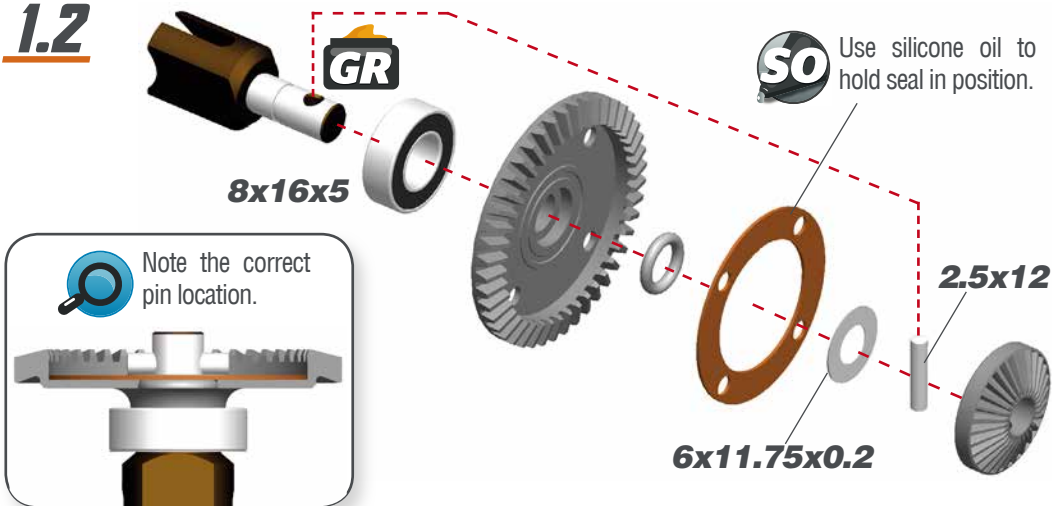
## STEP 1

### FR/RR DIFF BAG

#### 1.1



#### 1.2



## STEP 2

#### 2.1



#### VOLUME COMPENSATORS

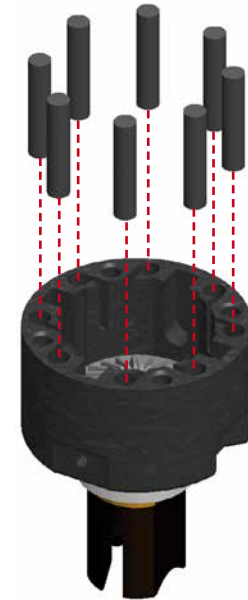
When the differential gets hotter, the foam inserts will absorb the pressure of the expansion of the oil.

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.

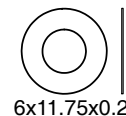
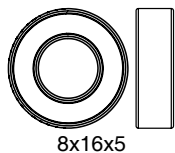
14.7 - 14.9 mm



#### 2.2

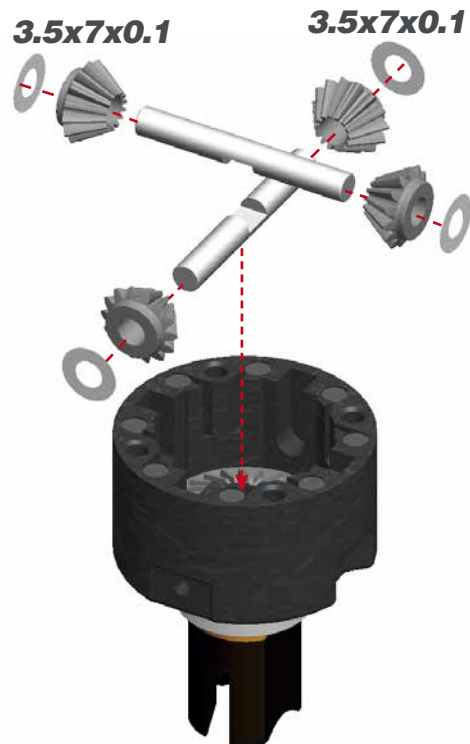
Add just enough oil to cover the large gear before assembling the small satellite gears and cross pins.

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





## STEP 3



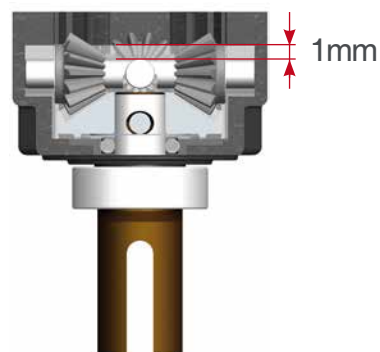
## STEP 4



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.



### OIL LEVEL

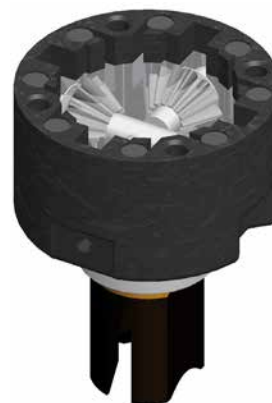


### AMOUNT OF OIL IN THE DIFFS

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

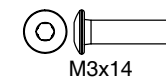
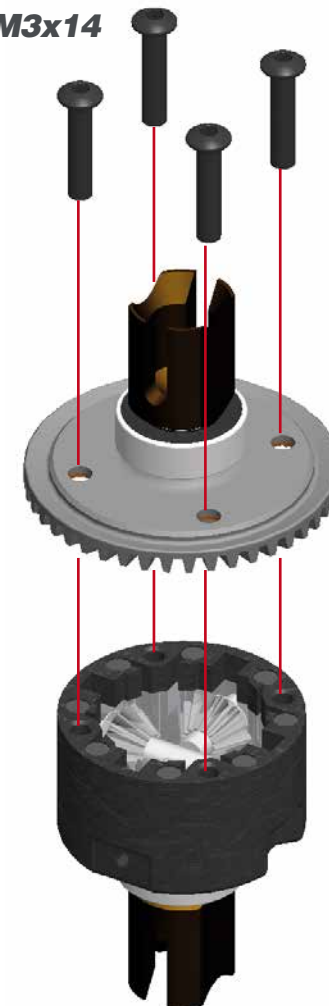
Differential weight with volume compensators = 40.15 grams

Differential weight without volume compensators = 40.35 grams



## STEP 5

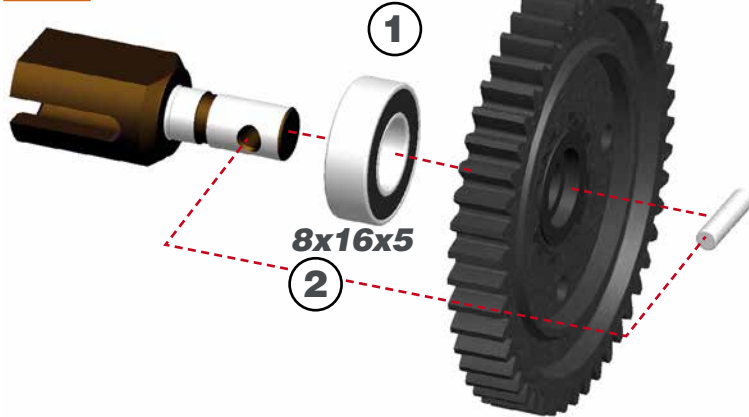
M3x14



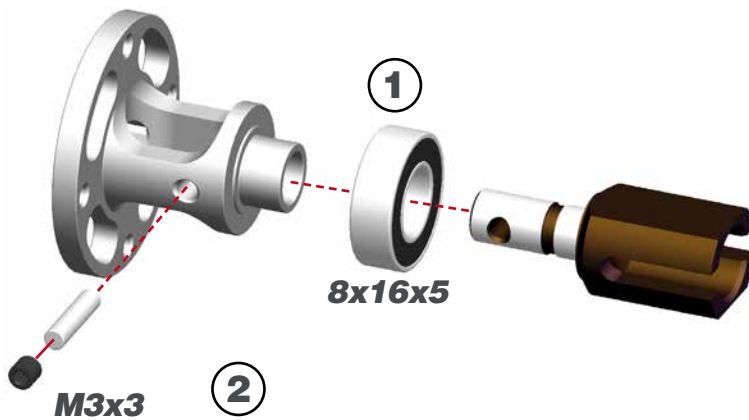
## STEP 6

## SOLID AXLE BAG

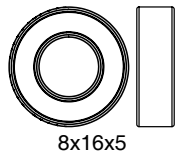
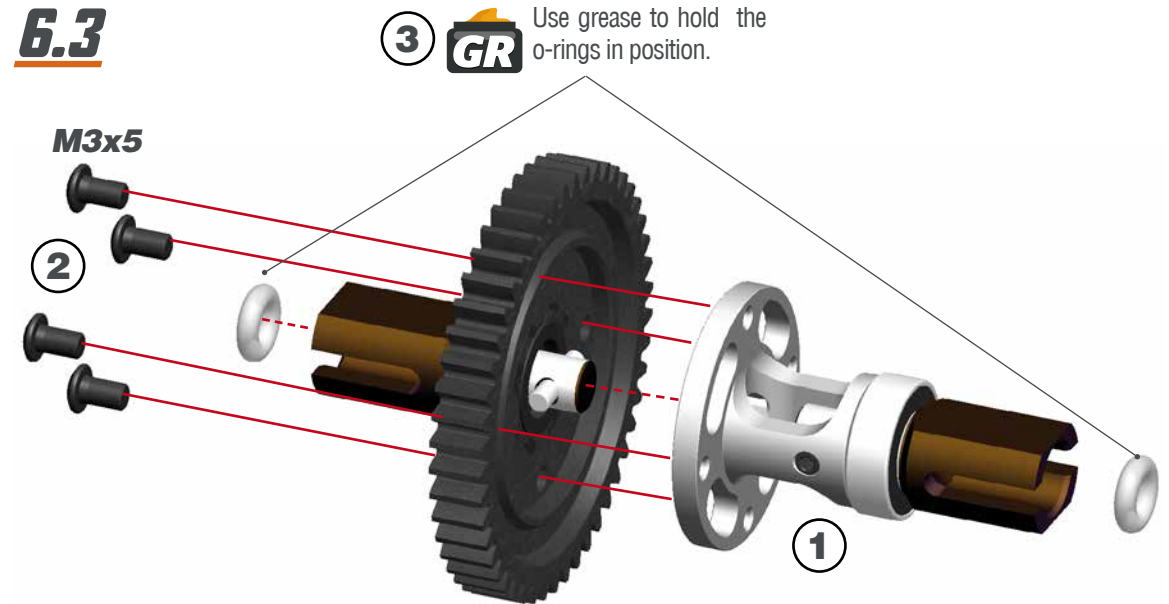
### 6.1



### 6.2



### 6.3



## STEP 7

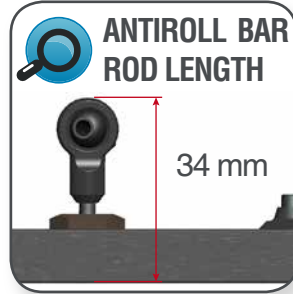
BAG 1

7.1

L=R

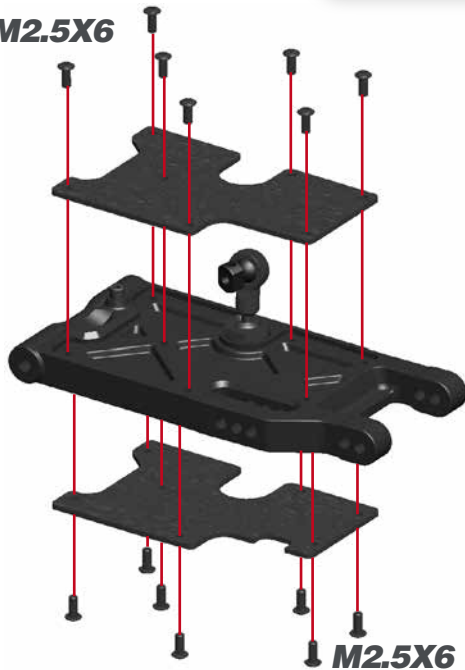


Tighten anti-roll bar cap until there is no play, and it moves freely.



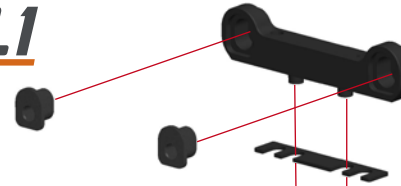
7.2

M2.5X6

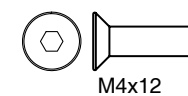
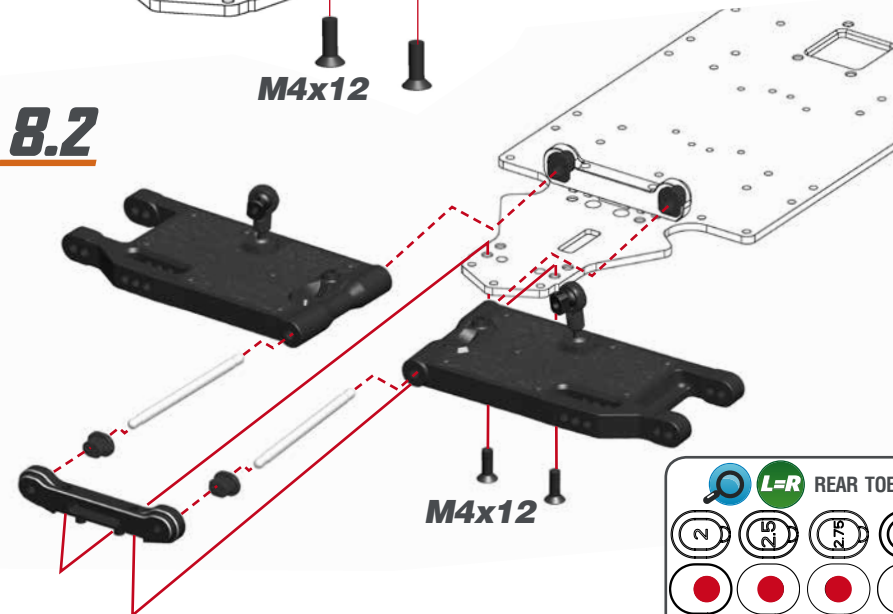



## STEP 8






8.1





8.2











 **L=R** REAR ANTISQUAT INSERTS CHART

1	15	2	25	3
				



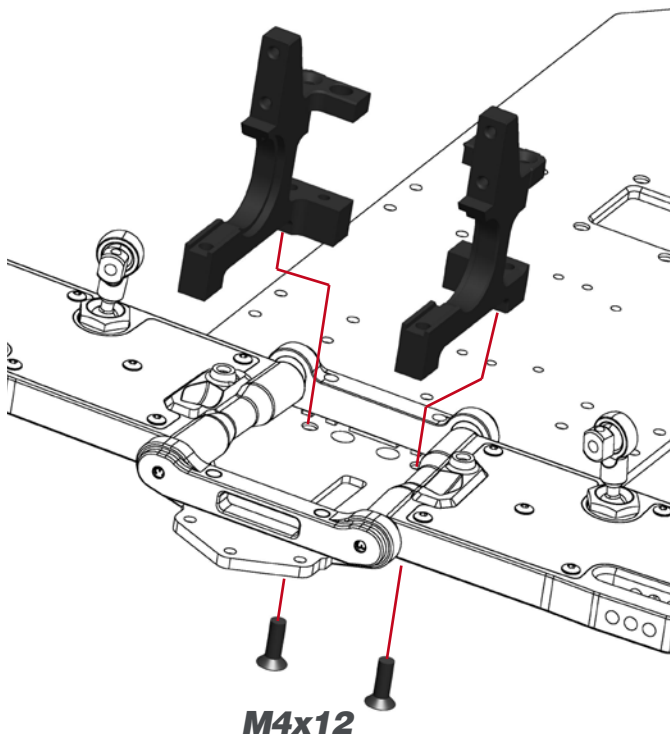
 **L=R** REAR TOE IN INSERTS CHART

2	25	2.75	3	3.25	3.5	4
						





## STEP 9



## STEP 10

### BAG 2

### 10.1



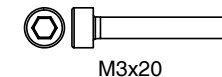
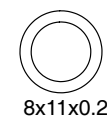
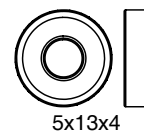
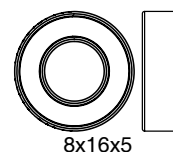
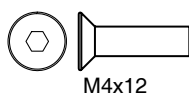
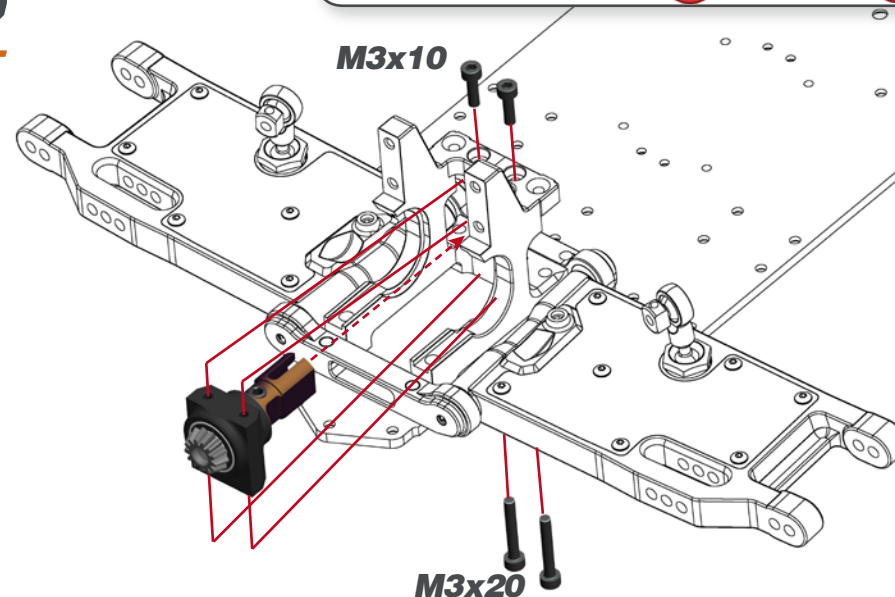
**!** After building the differential with new gears, new differential case and bearings, the diff may feel a little tight. The connected parts need at least an hour run-time to create a perfect match. Attention: When you assemble the diff with too much initial play, the gears will not run-in properly 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.

**INDRIVE BRACKETS CHART**  
Assemble the indrive bracket accordingly to the diff insert assert mounted in the step 18.

LOW	MID LOW	MID HIGH	HIGH

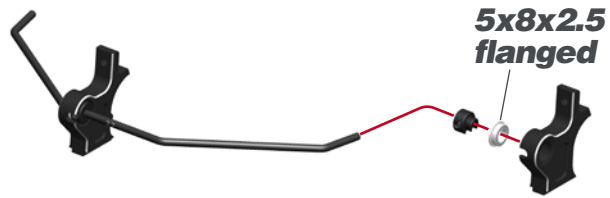
**DEF. SETUP**

### 10.2

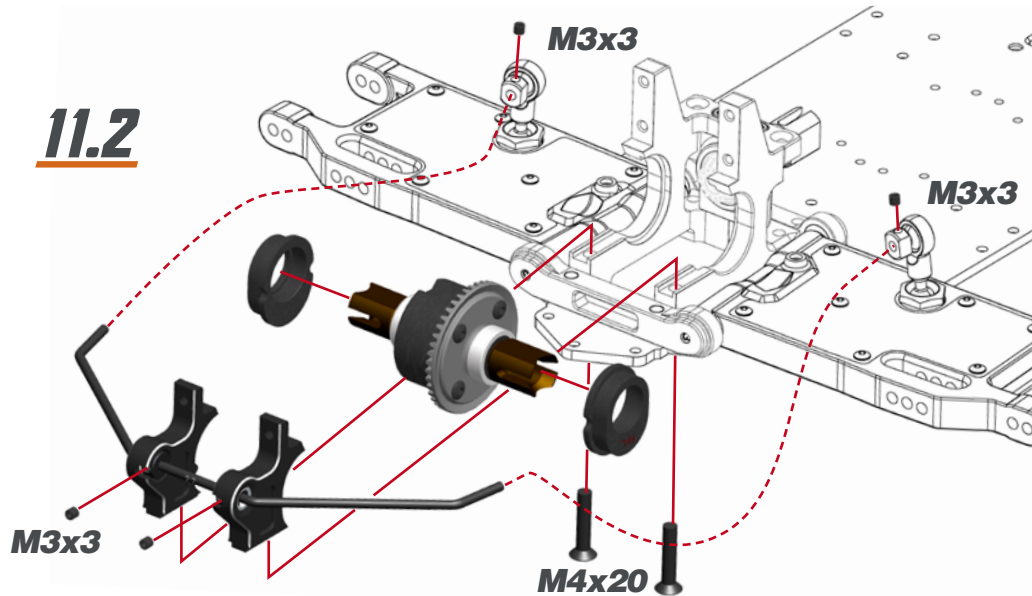


## STEP 11

11.1



11.2



DIFF INSERTS CHART



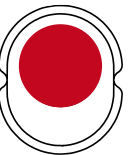
LOW



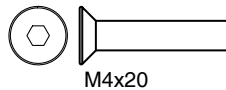
MID  
LOW



MID  
HIGH

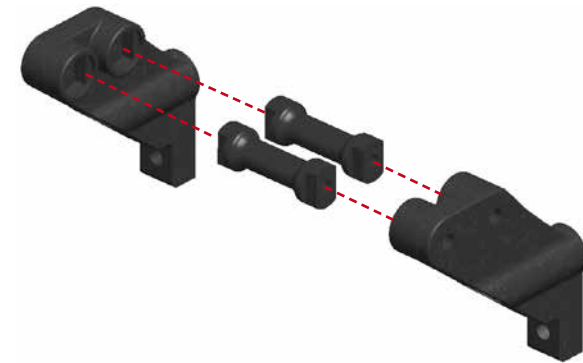


HIGH

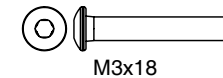
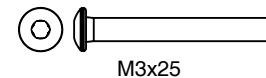
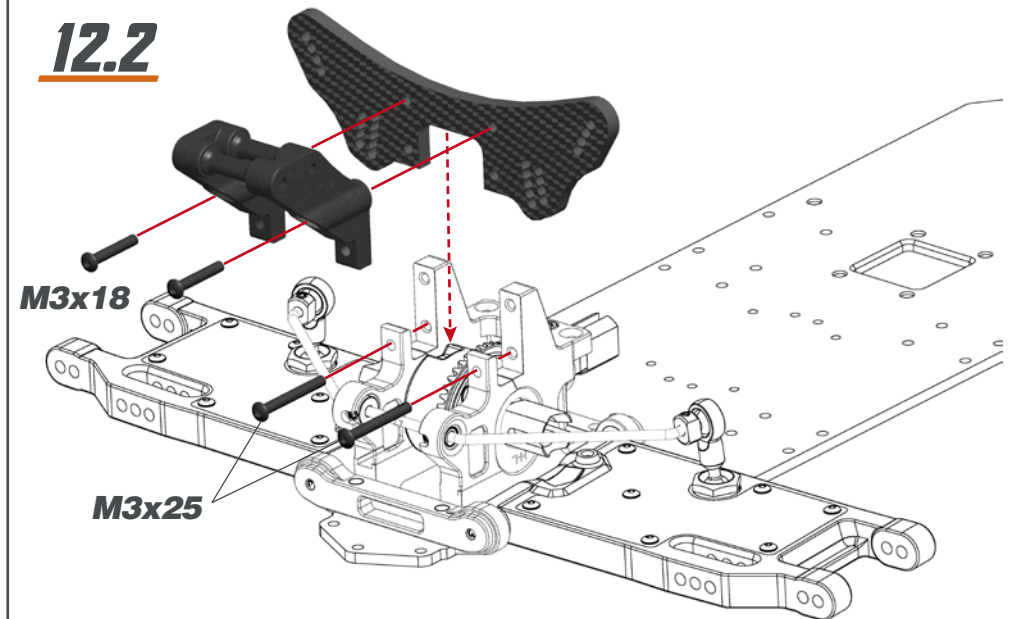


## STEP 12

12.1



12.2

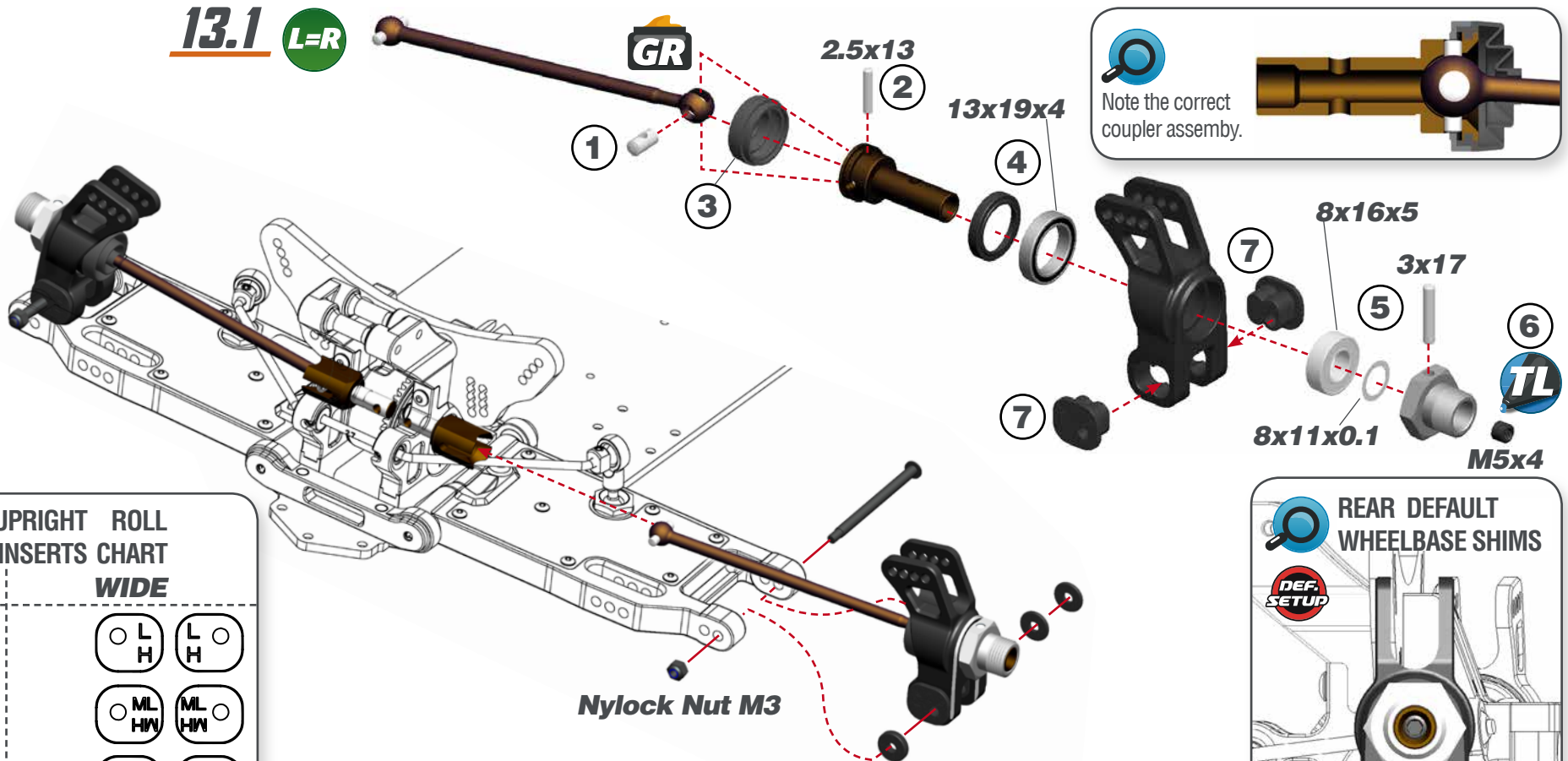


## STEP 13

BAG 3

13.1 L=R

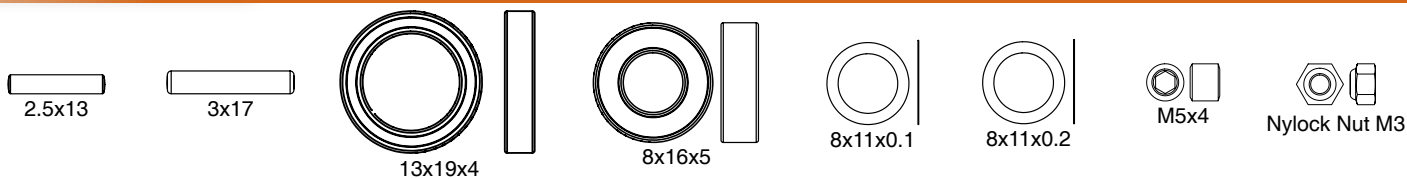
13.2



**REAR UPRIGHT ROLL CENTER INSERTS CHART**

NARROW		WIDE	
L H	L H	L H	L H
ML HW	ML HW	ML HW	ML HW
MH TW	MH TW	MH TW	MH TW
H T	H T	H T	H T

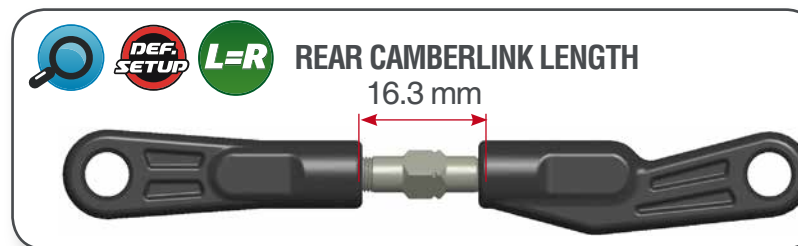
**DEF. SETUP**



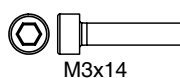
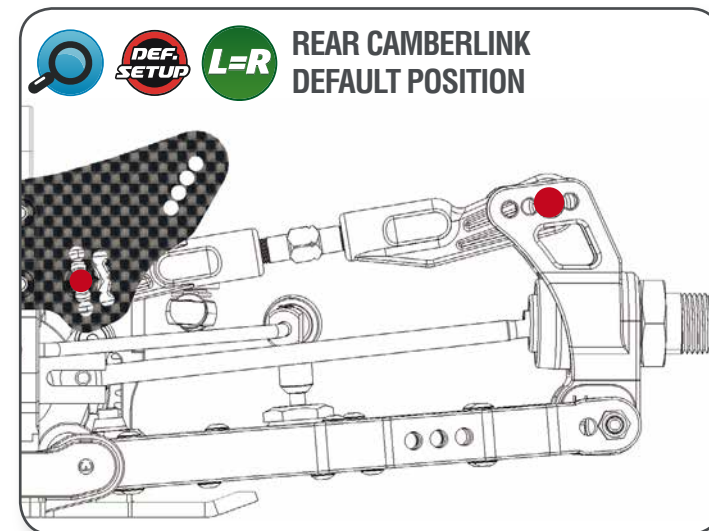
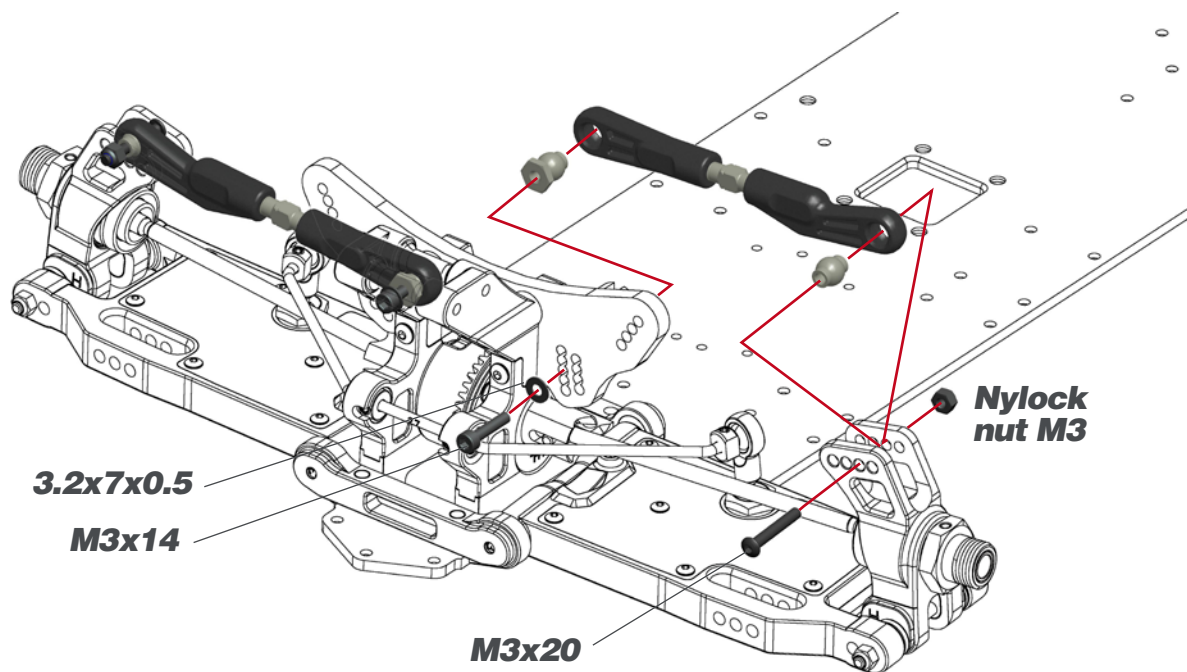


## STEP 14

14.1

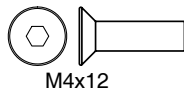
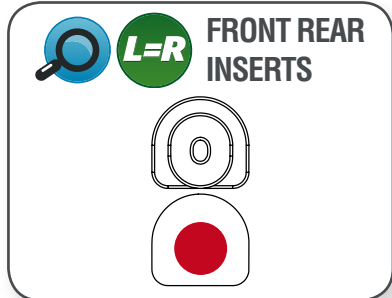
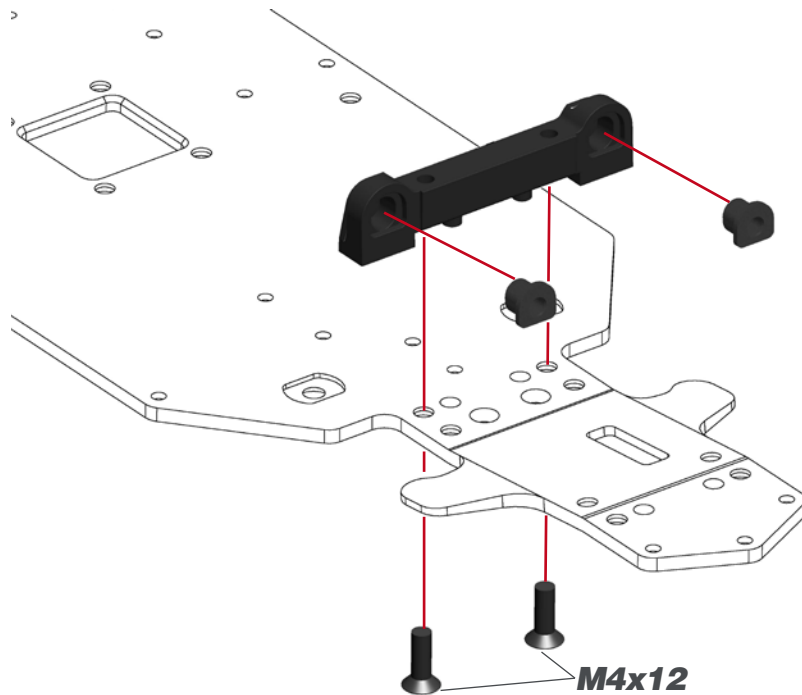


14.2



## STEP 15

BAG 4



## STEP 16

### 16.1

L=R

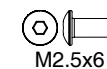


Tighten anti-roll bar cap until there is no play, and it moves freely.

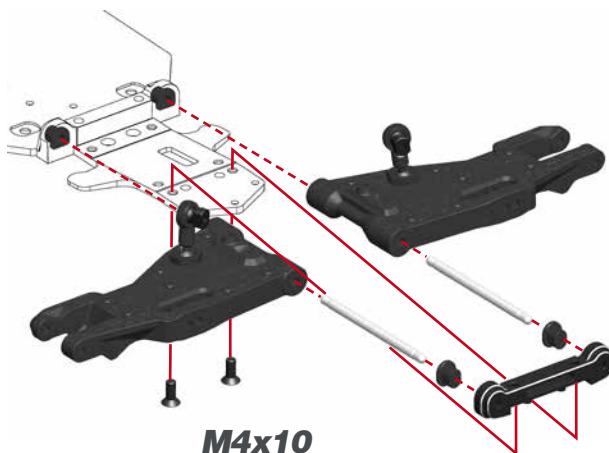


### 16.2

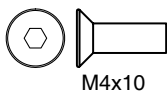
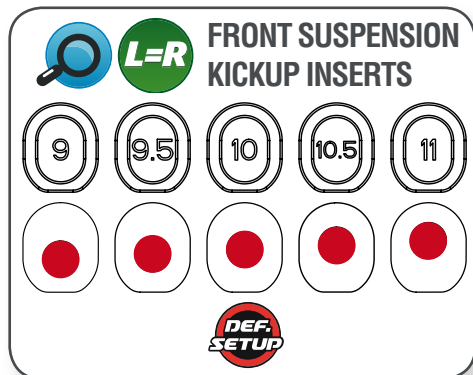
L=R



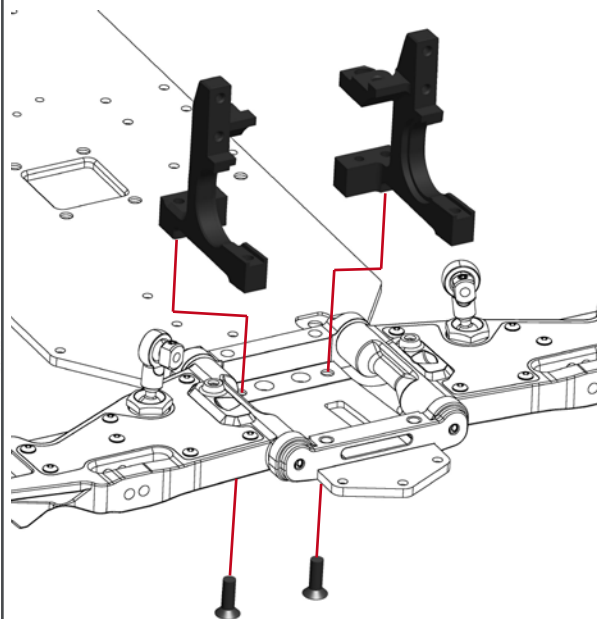
## STEP 17



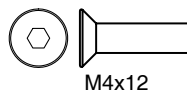
M4x10



## STEP 18



M4x12

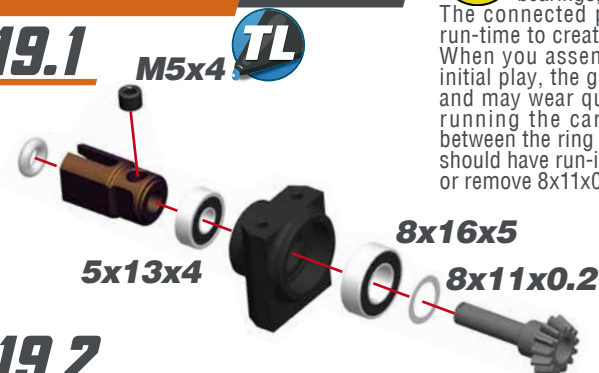


## STEP 19

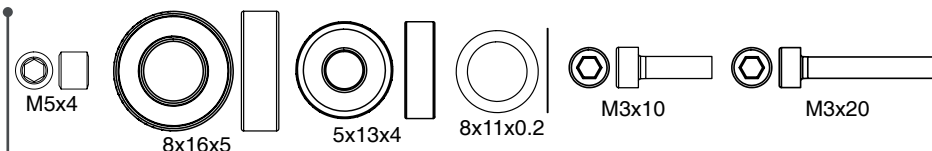
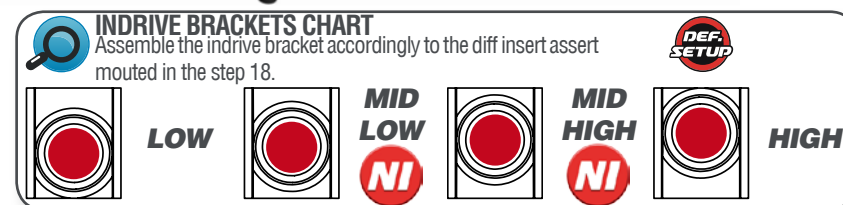
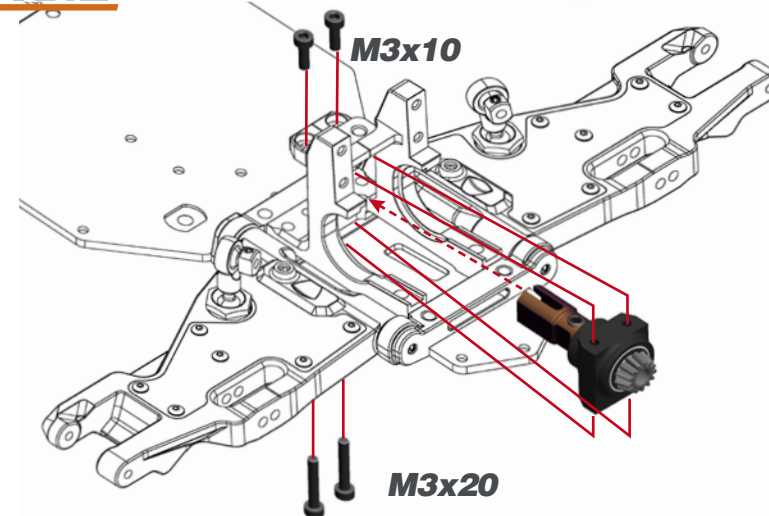
BAG 5

**!** 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.

### 19.1



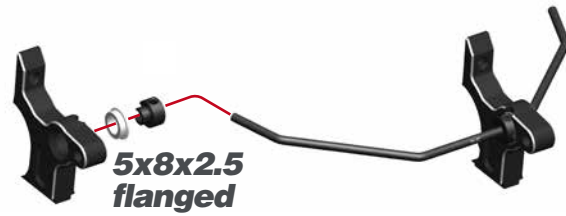
### 19.2



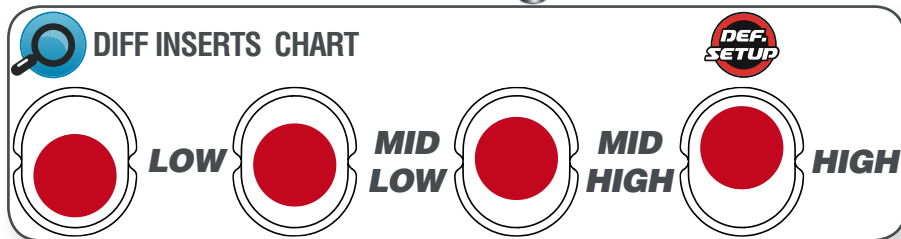
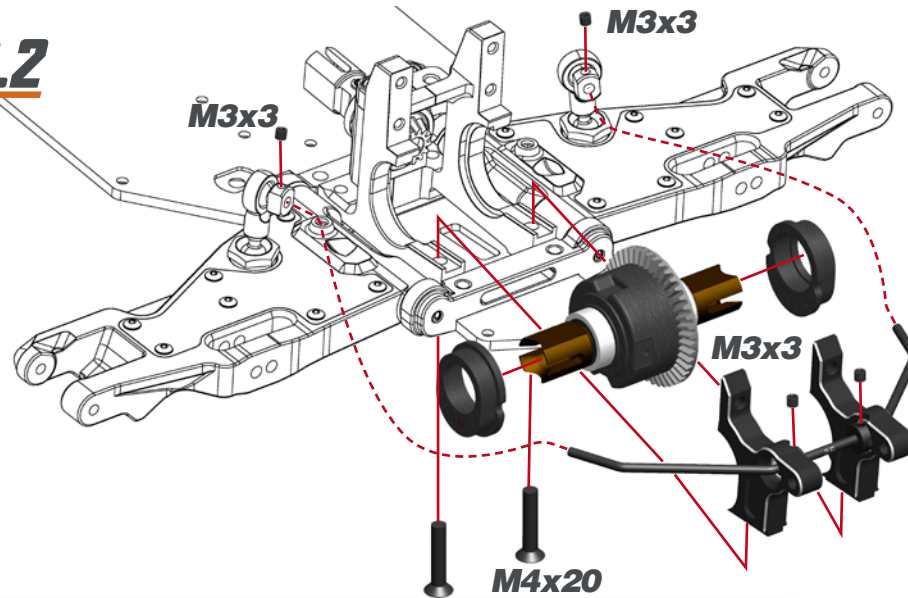


## STEP 20

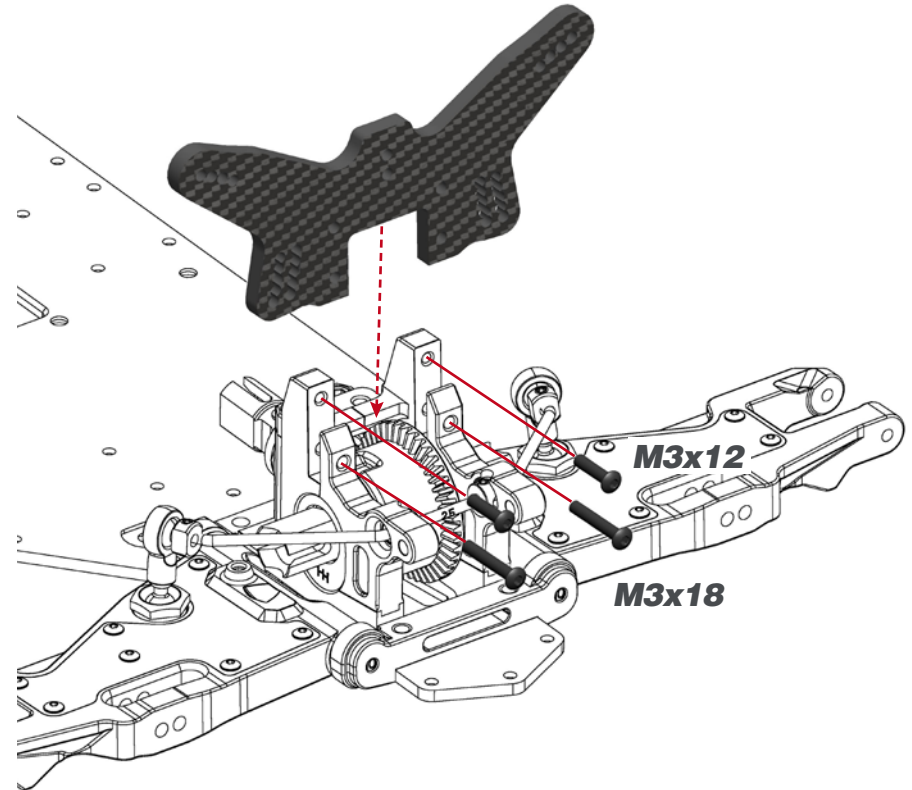
20.1



20.2

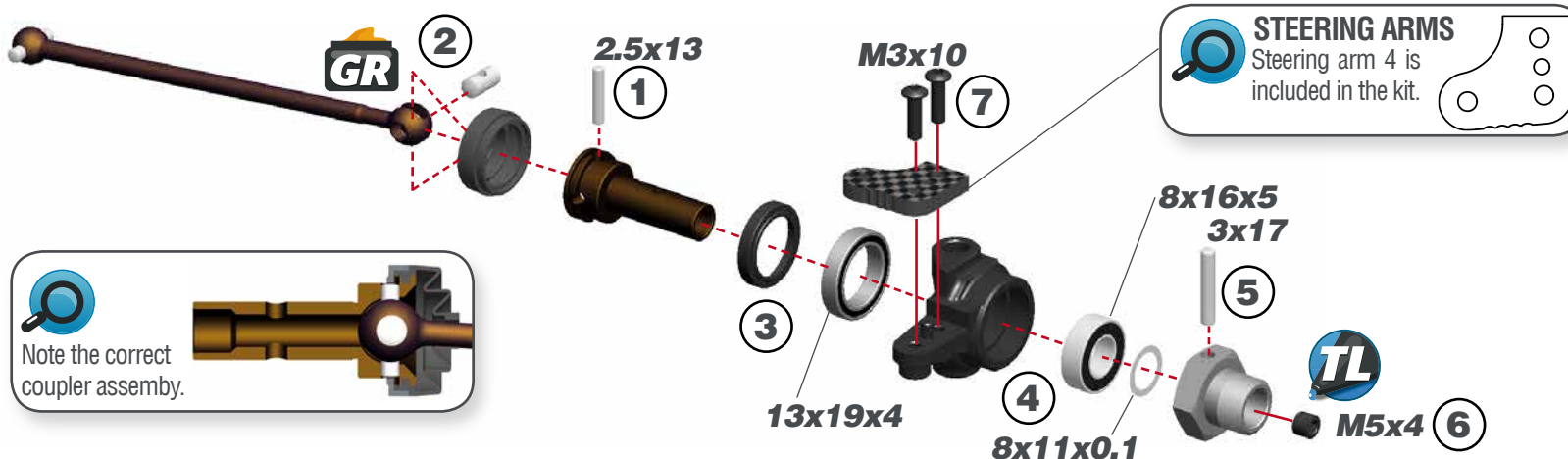


## STEP 21

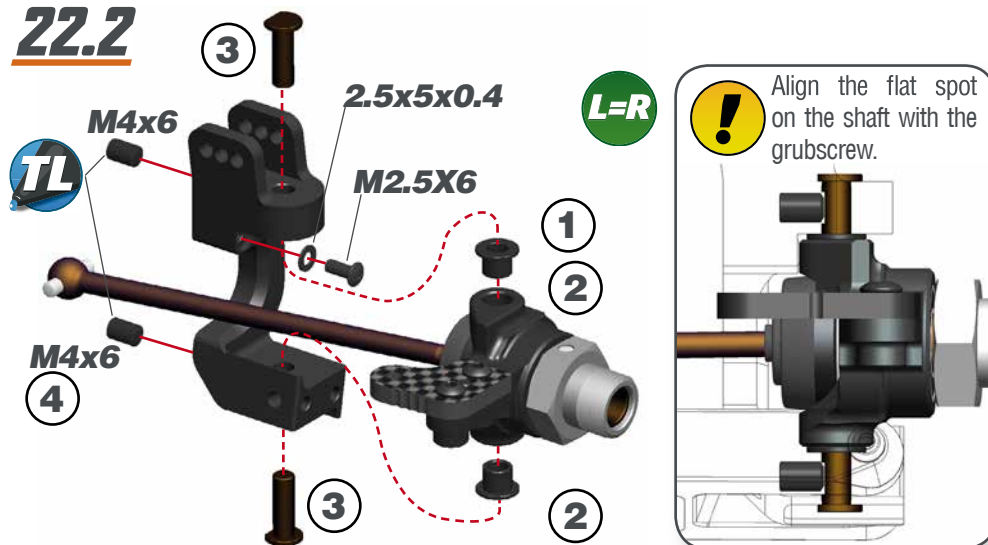


## STEP 22 BAG 6

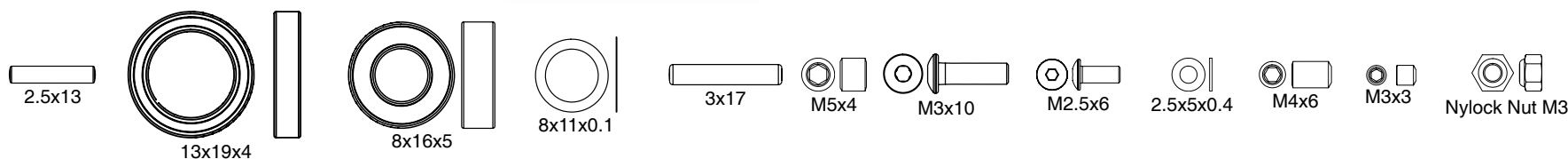
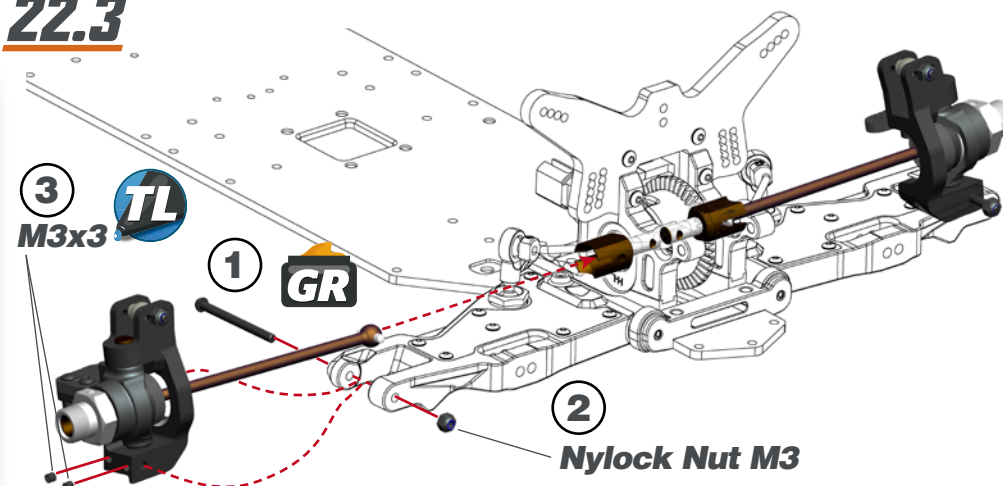
### 22.1 L=R



### 22.2

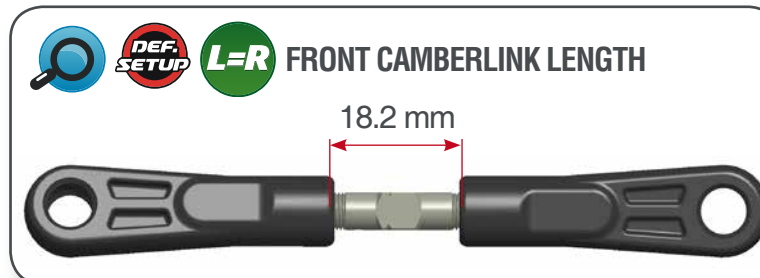


### 22.3

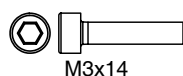
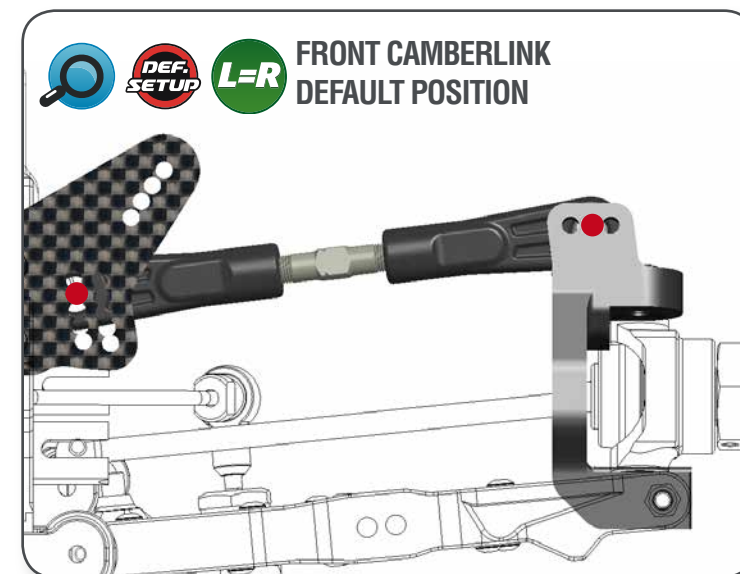
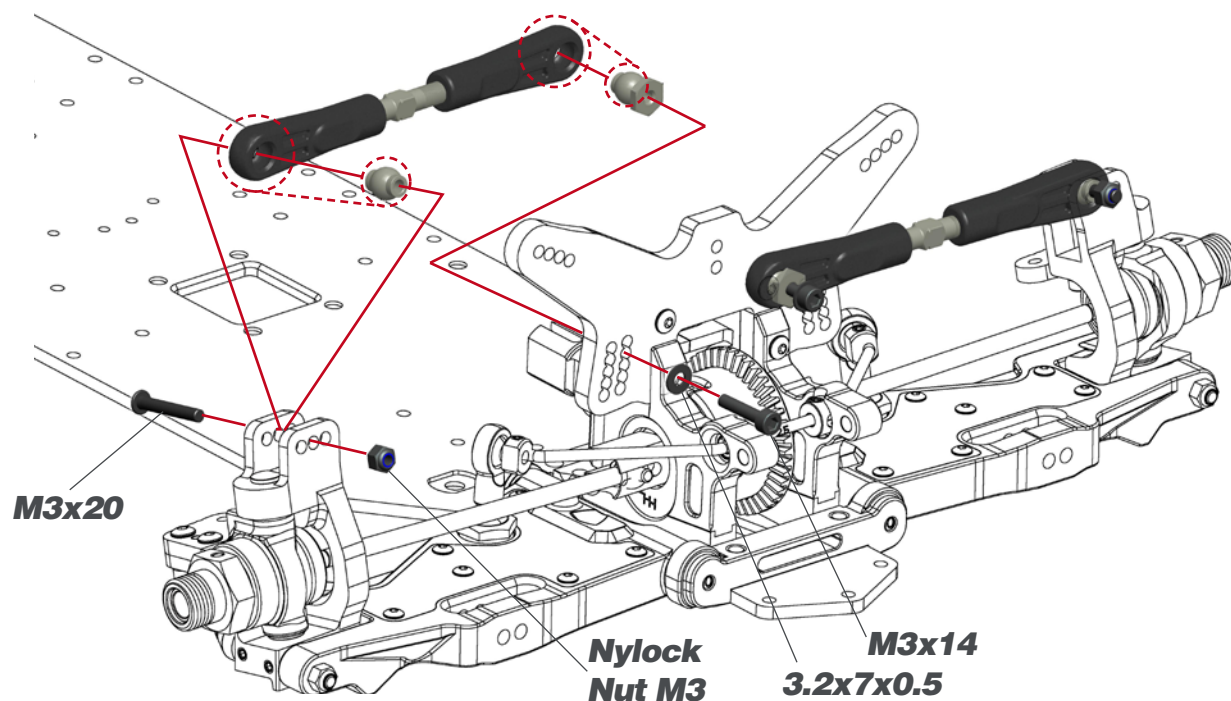


## STEP 23

### 23.1



### 23.2



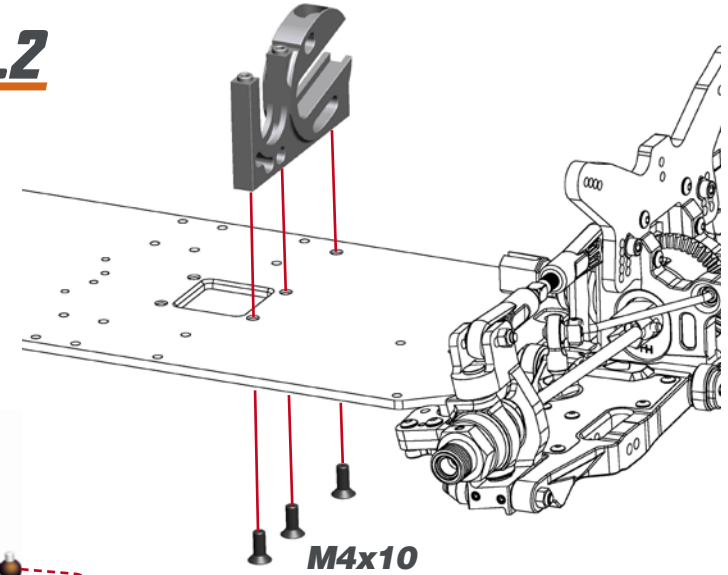


## STEP 24 BAG 7

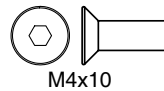
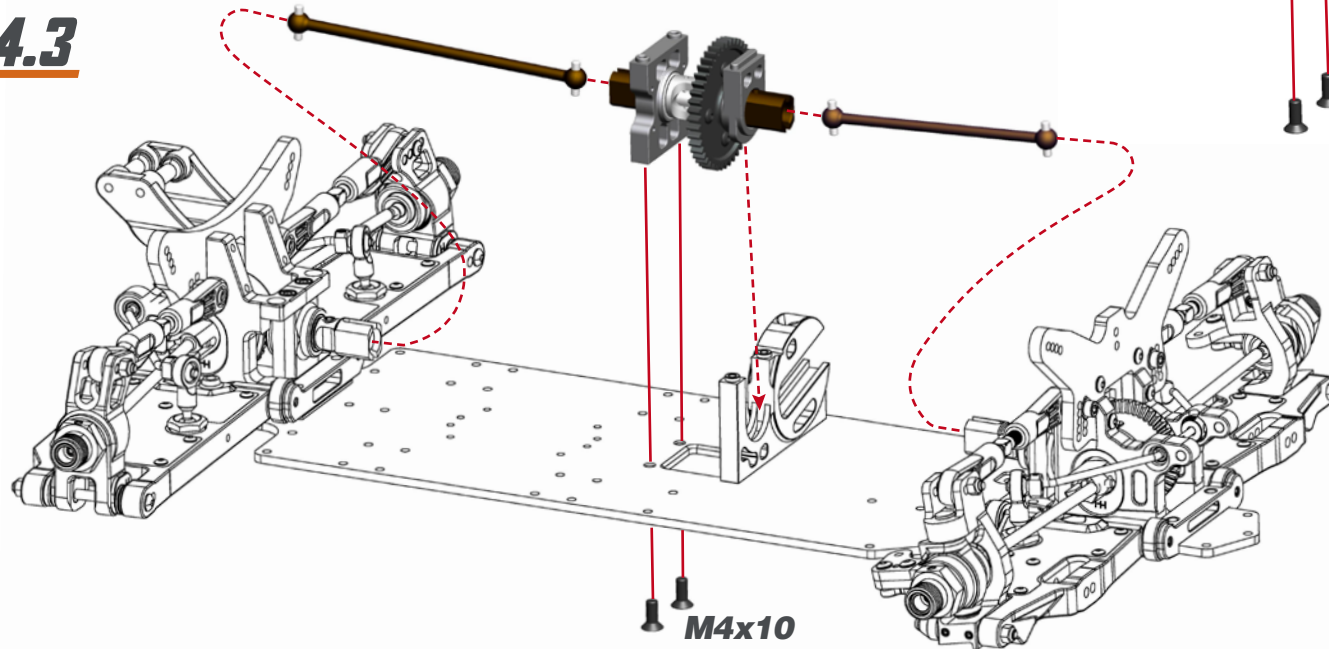
**24.1**



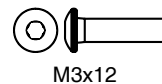
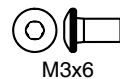
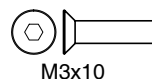
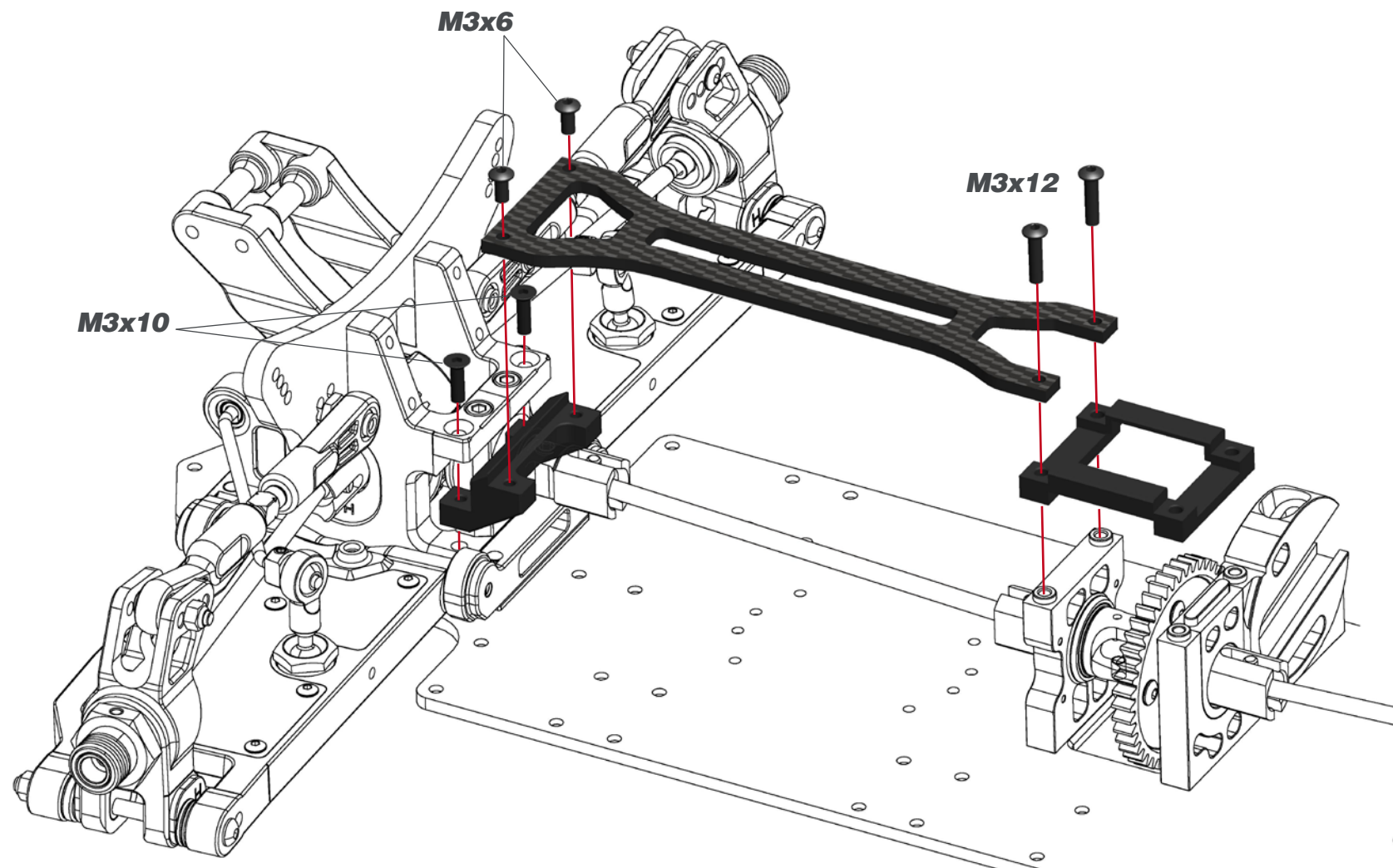
**24.2**



**24.3**



## STEP 25



## STEP 26

BAG 8

### 26.1



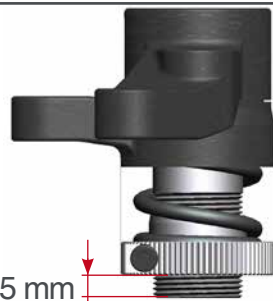
M2x10

### 26.2

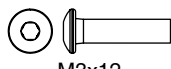


The servo saver spring should be preloaded 4.5mm. Also notice the correct orientation of the collar.

4.5 mm



M2x10



M3x12



3x6x0.5



Nylock Nut M3

## STEP 27

### 27.1

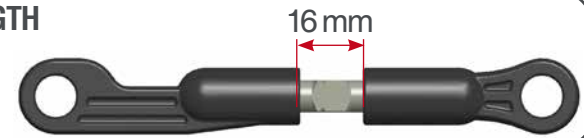


STEERING TRACKROD LENGTH



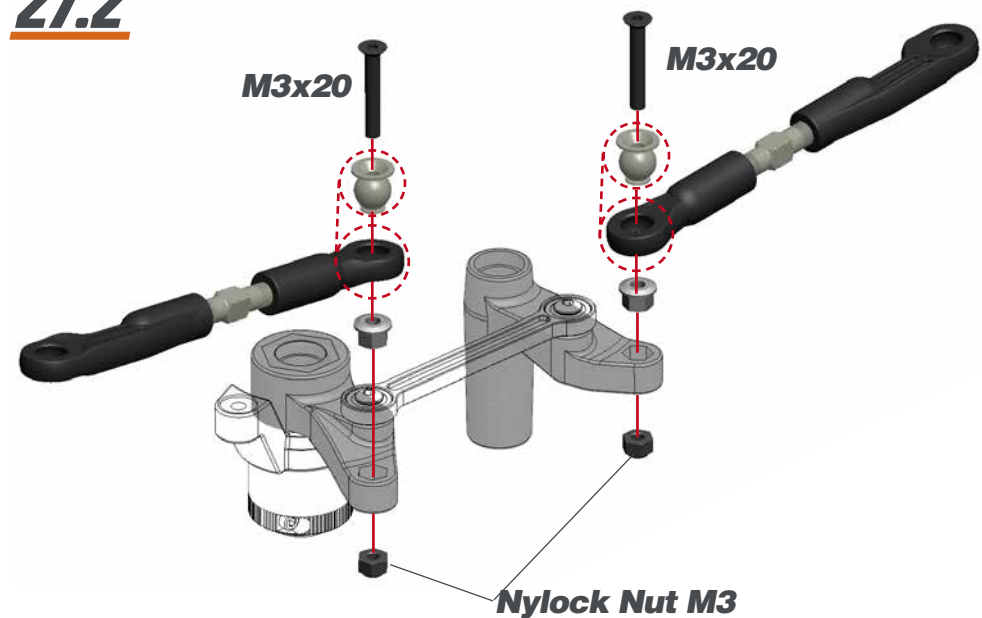
DEF. SETUP

L=R



16 mm

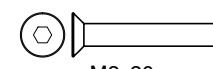
### 27.2



M3x20

M3x20

Nylock Nut M3



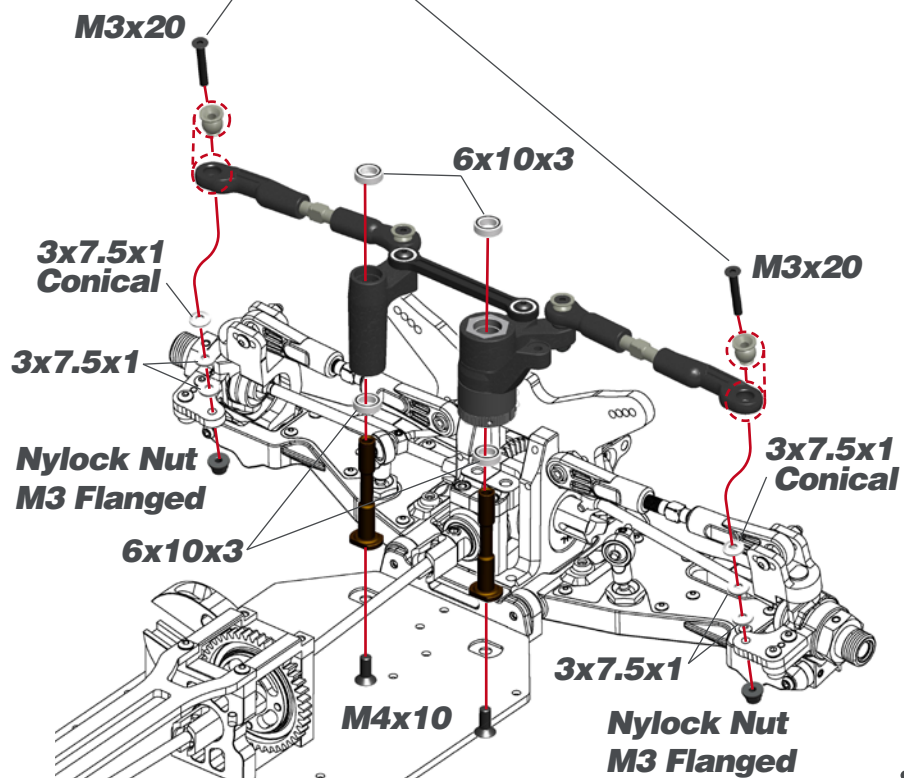
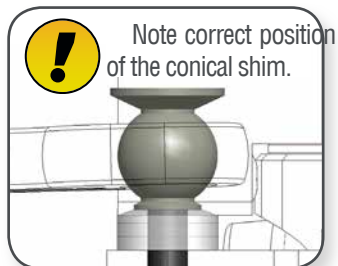
M3x20



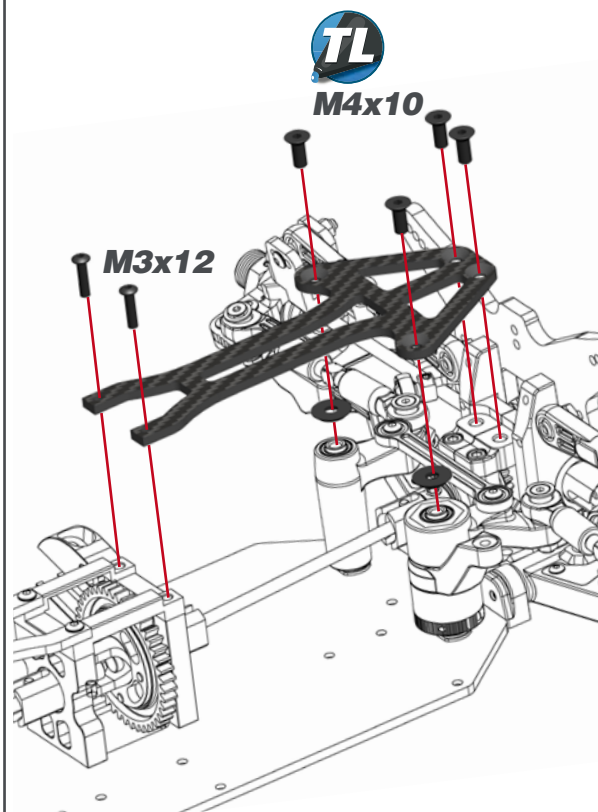
Nylock Nut M3

## STEP 28

! Note correct orientation of the outer steering balljoints.

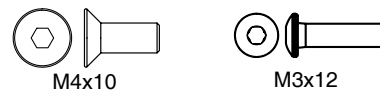
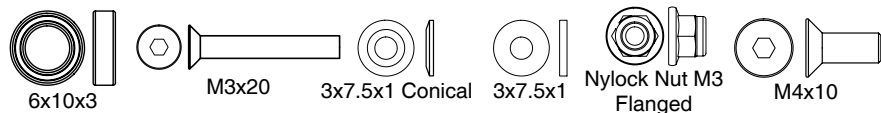
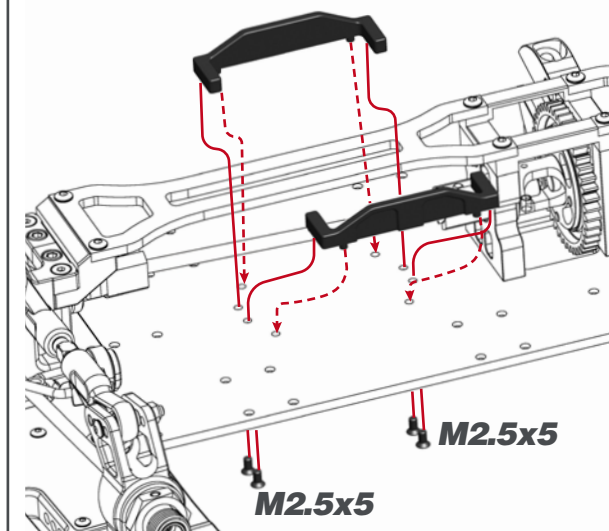


## STEP 29



## STEP 30

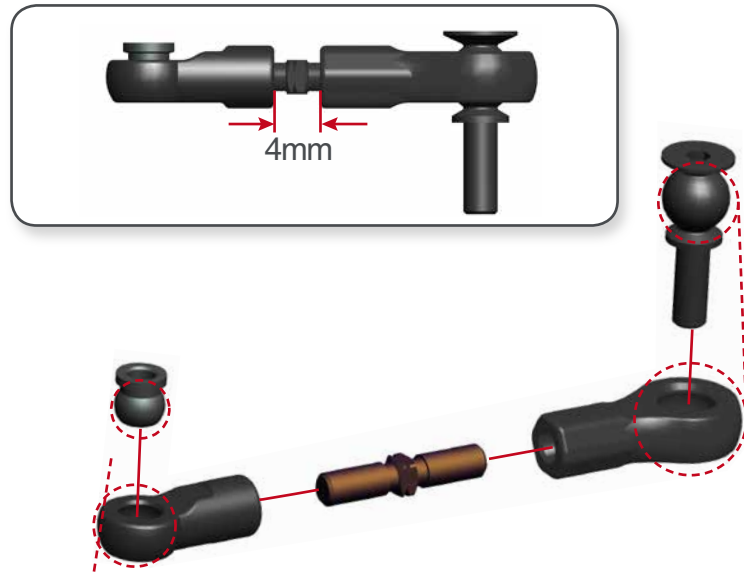
BAG 9



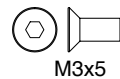
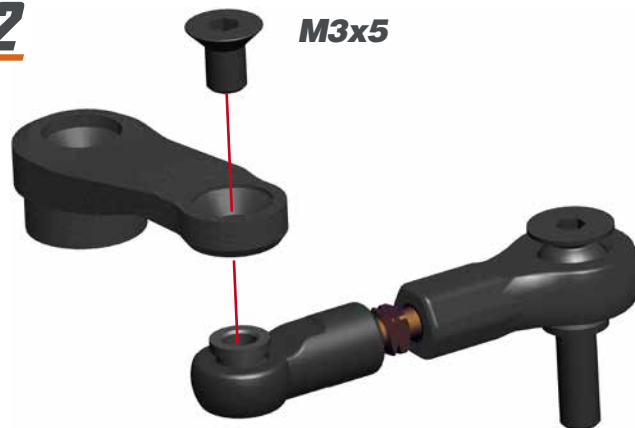


## STEP 31

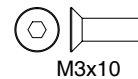
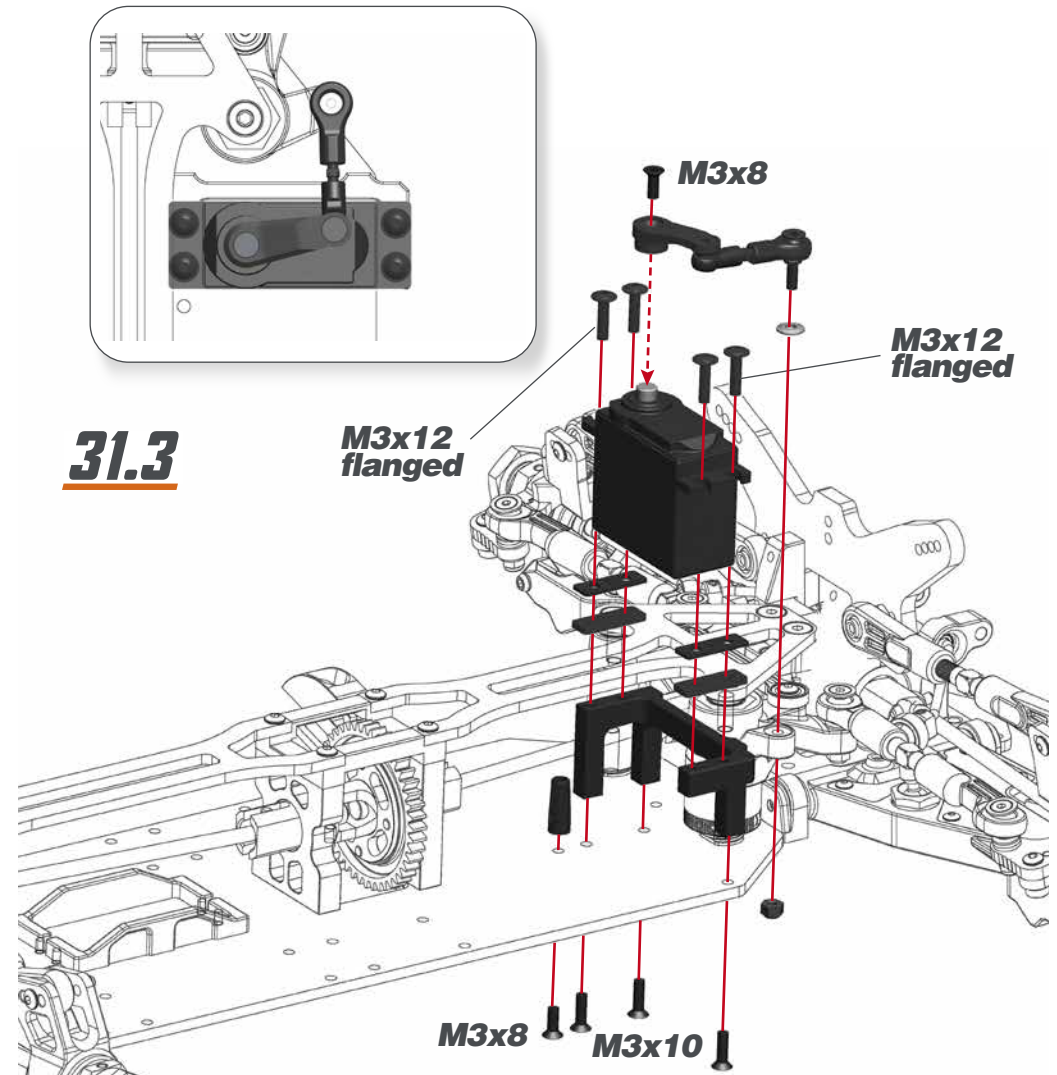
**31.1**



**31.2**



**31.3**

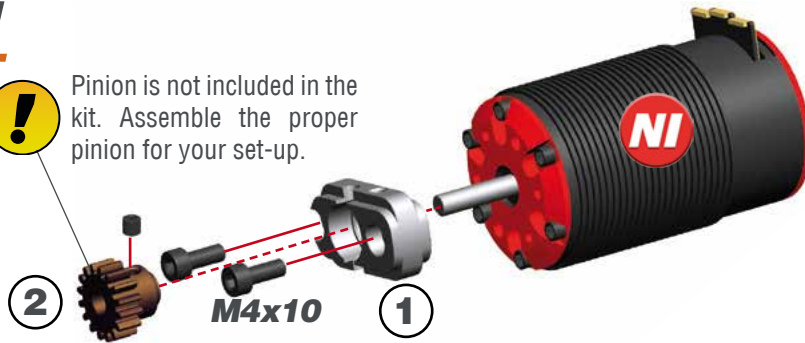


## STEP 32

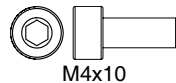
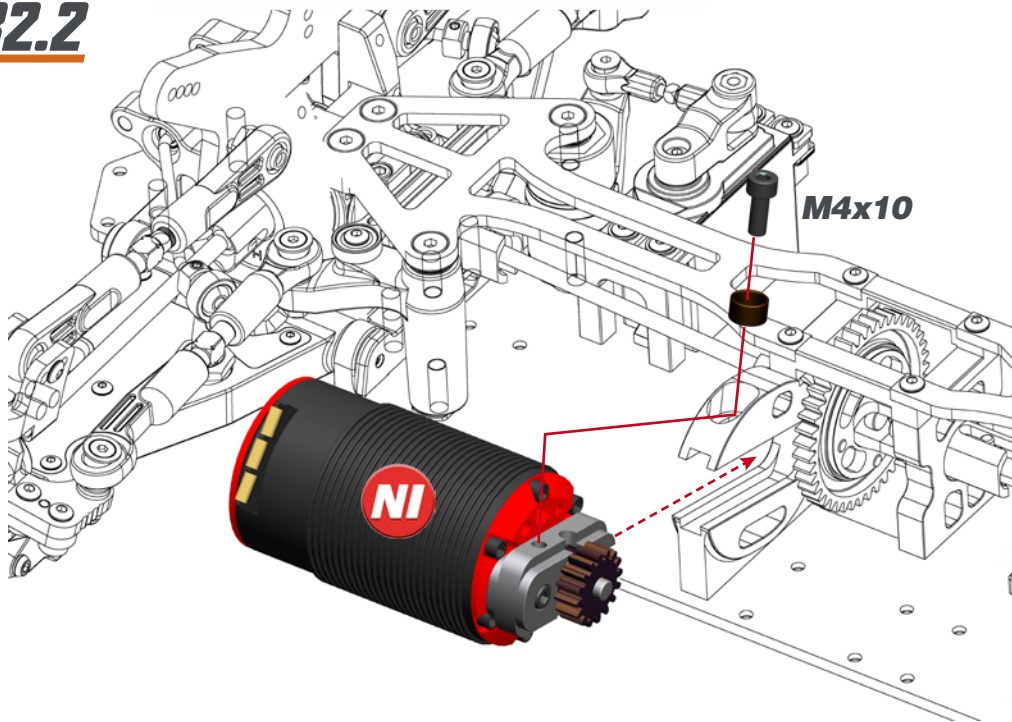
### 32.1



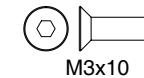
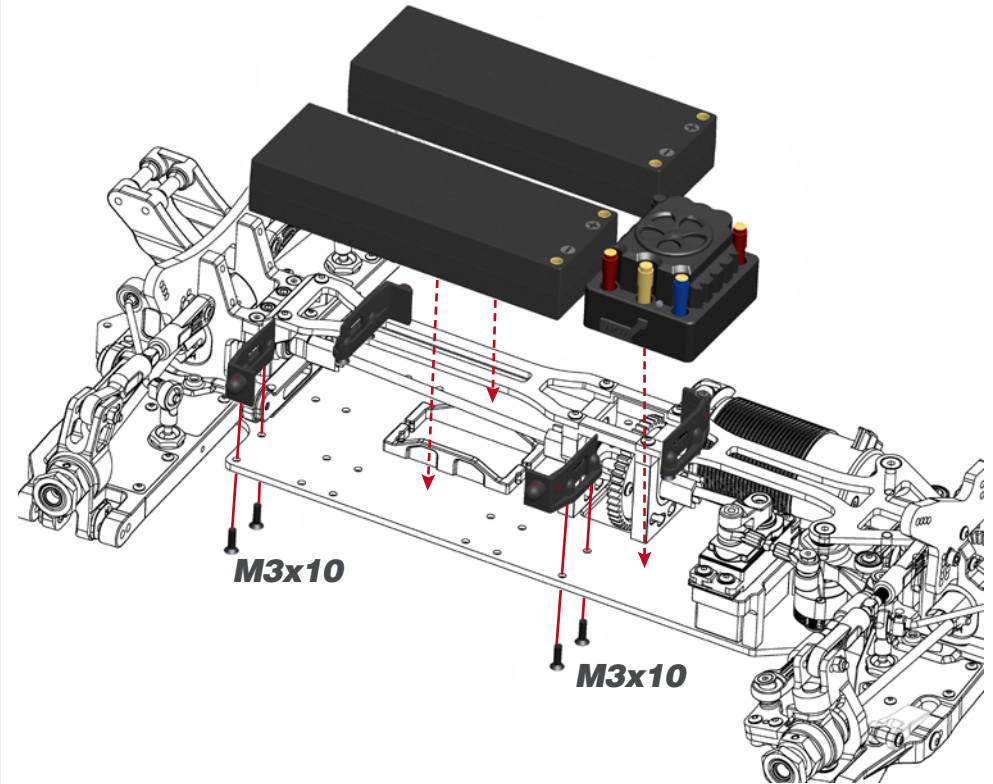
Pinion is not included in the kit. Assemble the proper pinion for your set-up.



### 32.2



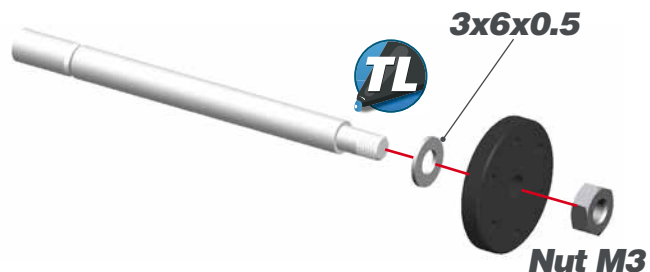
## STEP 33



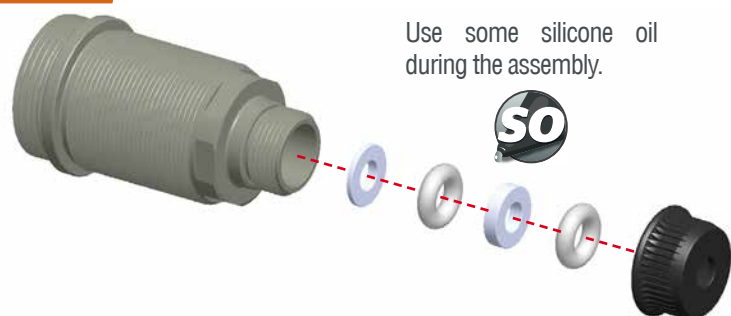
## STEP 34

### SHOCK BAG

34.1



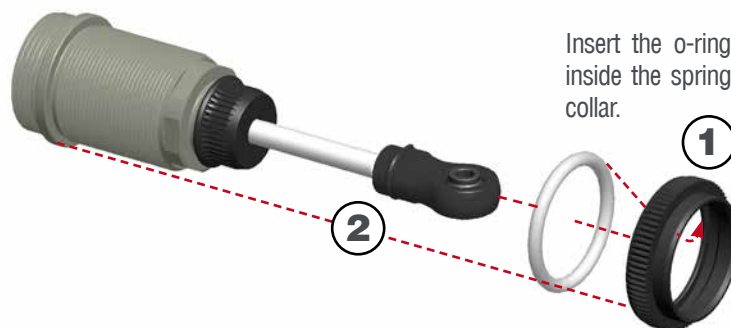
34.2



34.3



## STEP 35



 **SHOCKS LENGTH:** Measure the shock length fully extended.



## STEP 36

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.



## STEP 37

### 37.1

Push the membrane into the shock cap.



### 38.2

Close top step by step only 3/4



## STEP 38

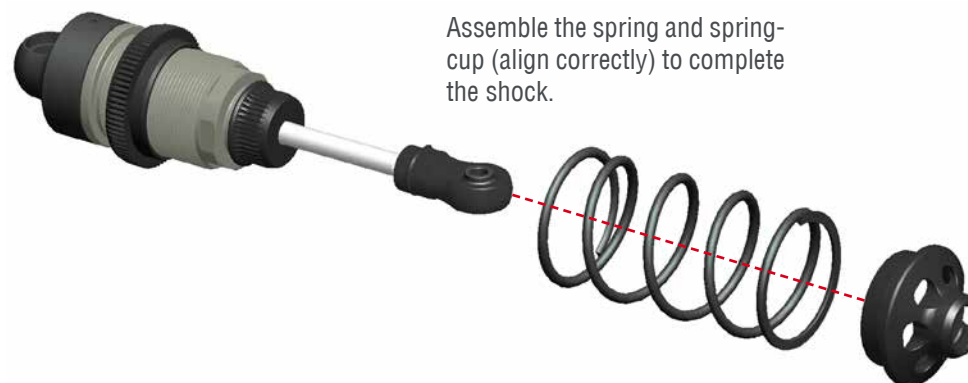
1-Bleed: push the shock-rod all the way in slowly, to allow excessive oil to escape.

2- With shockrod fully in, close fullu the shock cap.



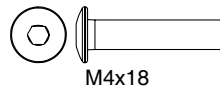
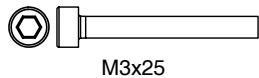
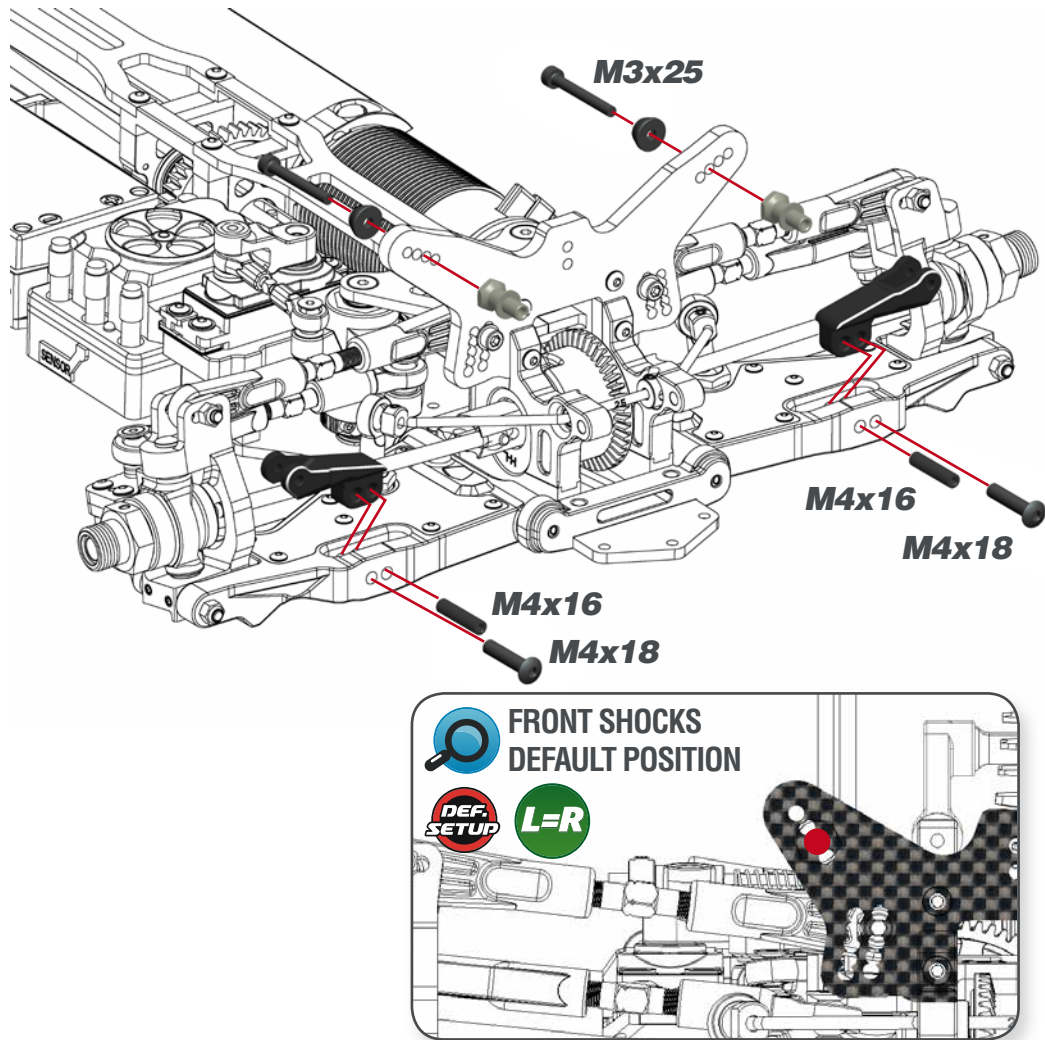
## STEP 39

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

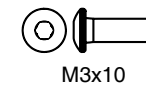
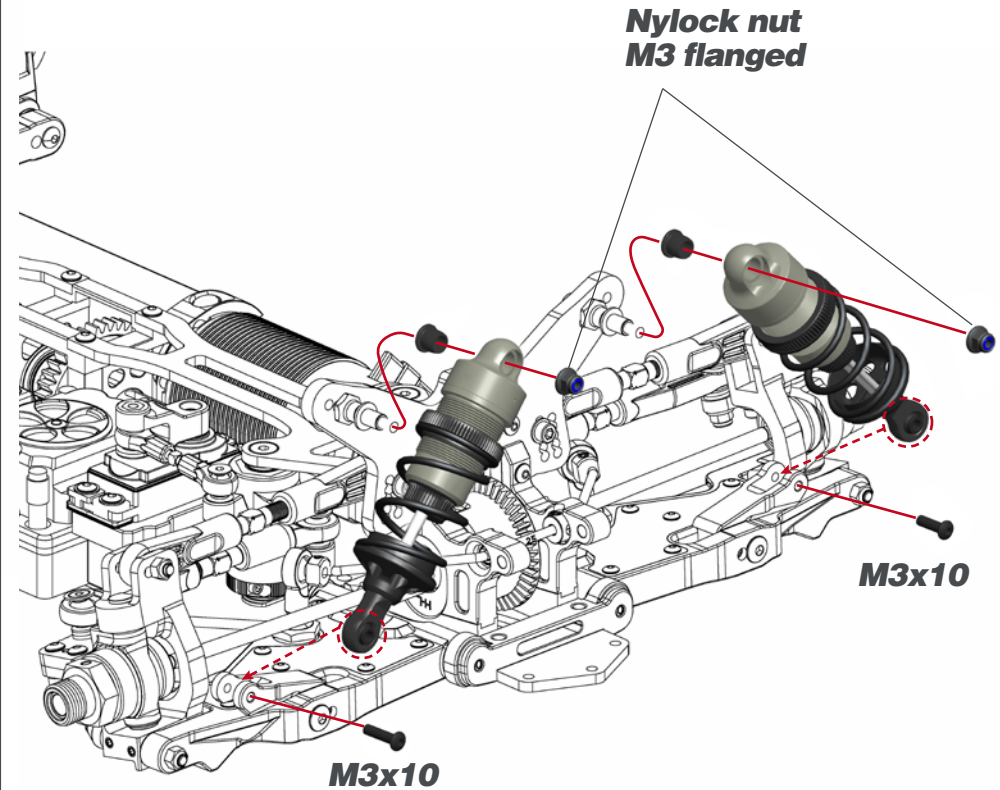




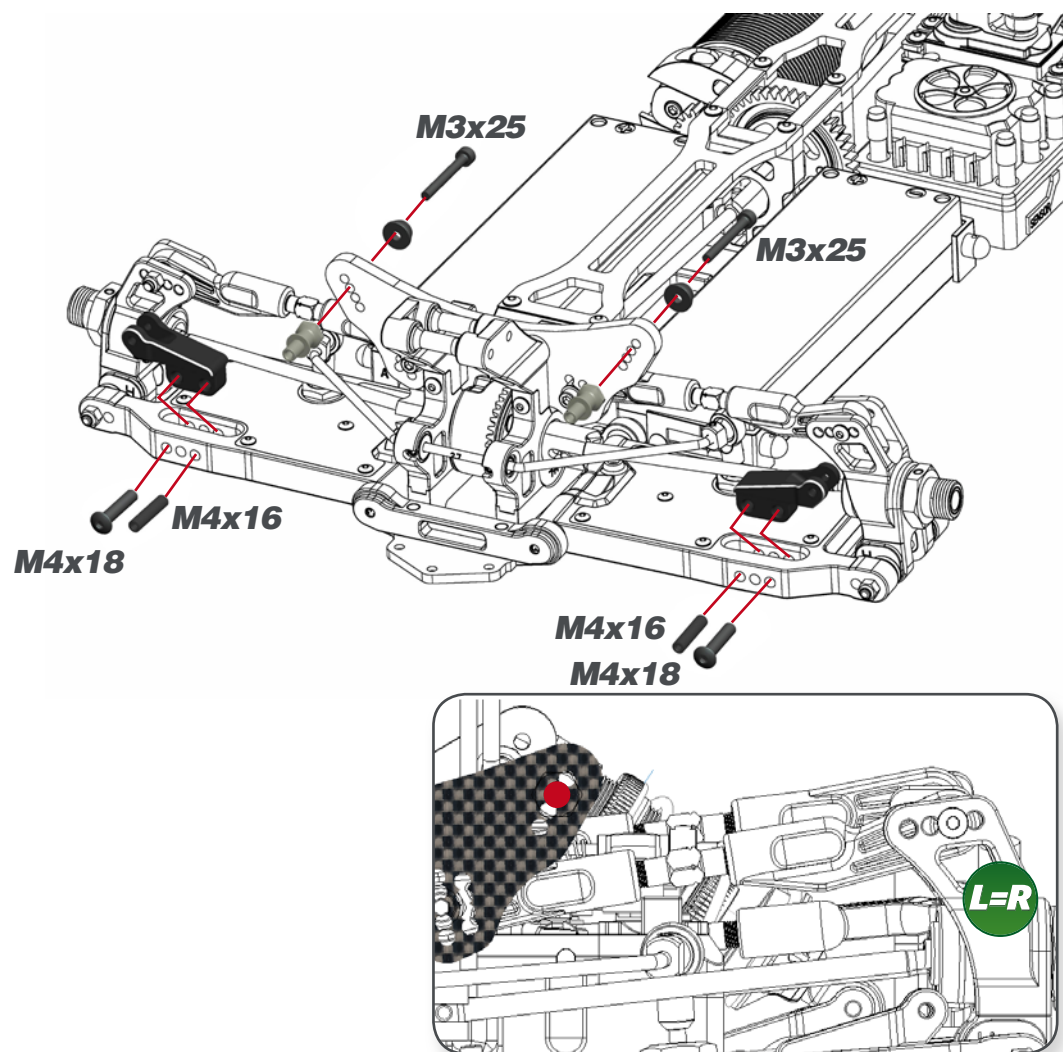
## STEP 40



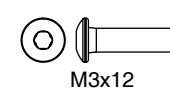
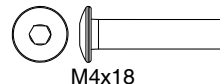
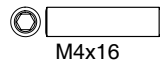
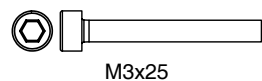
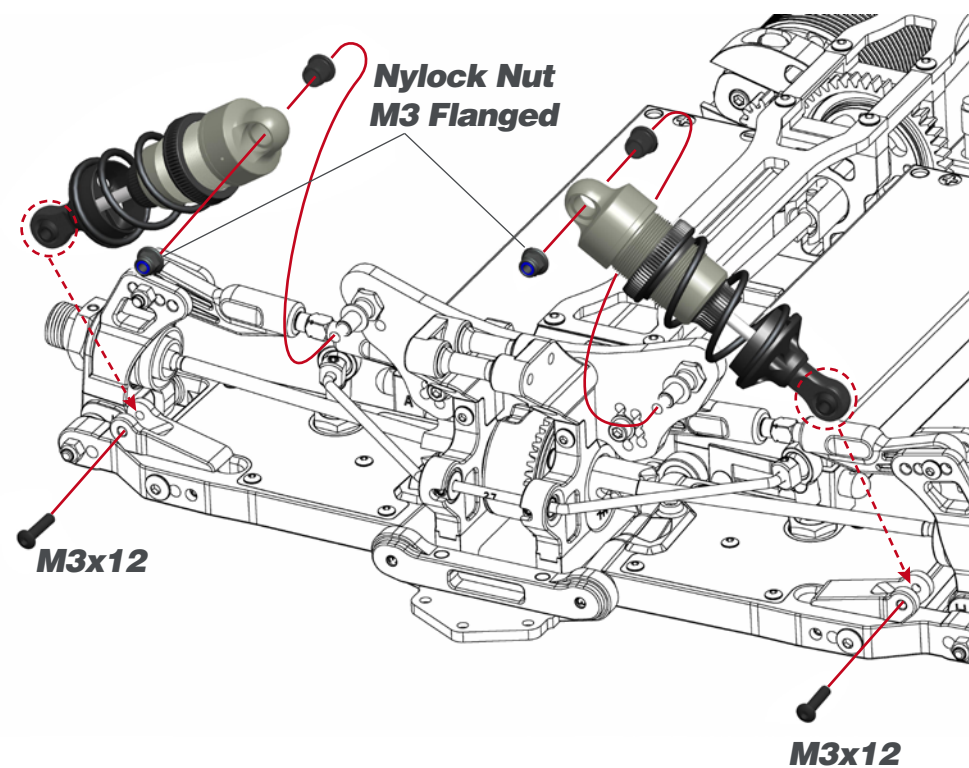
## STEP 41



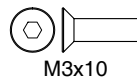
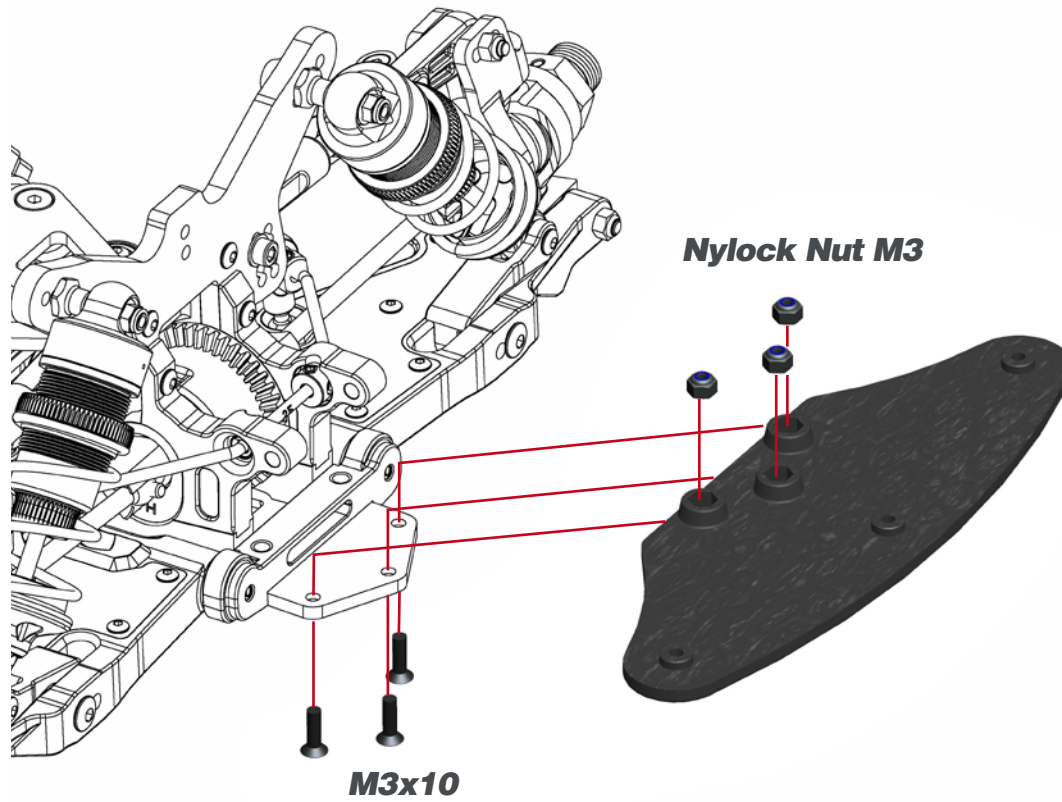
## STEP 42



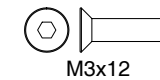
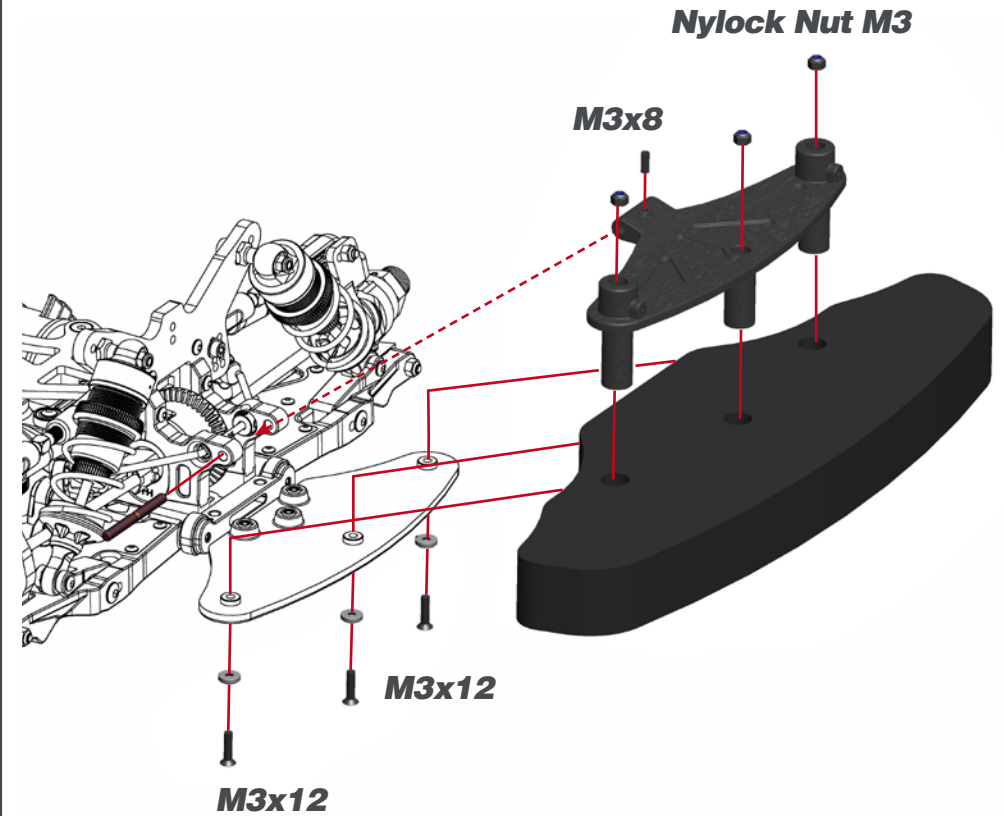
## STEP 43



## STEP 44 BAG 10

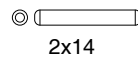
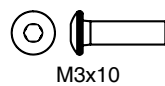
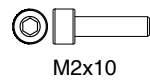
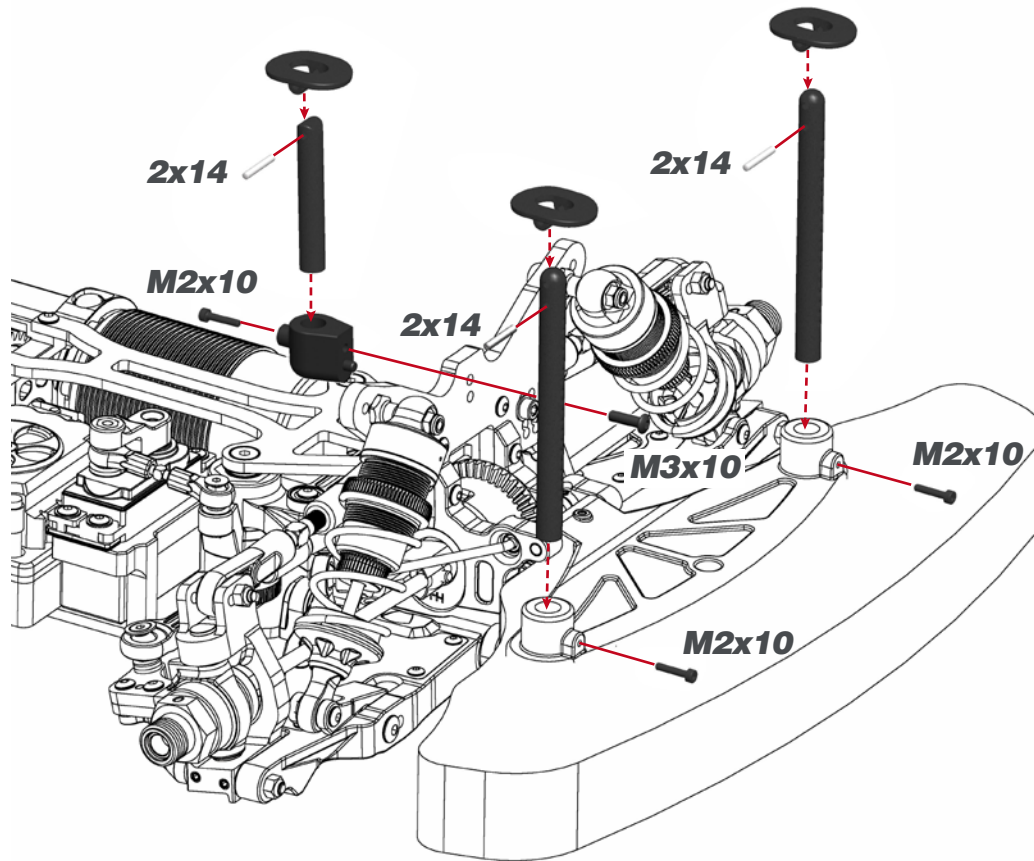


## STEP 45



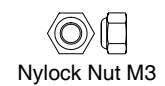
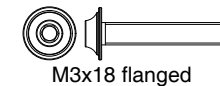
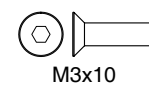
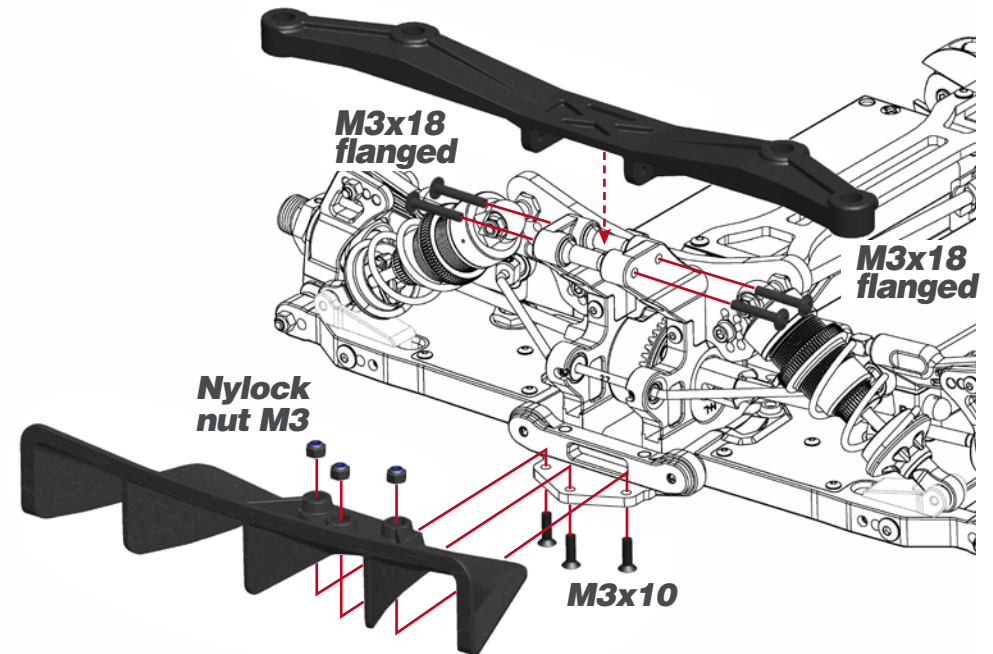


## STEP 46



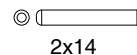
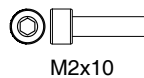
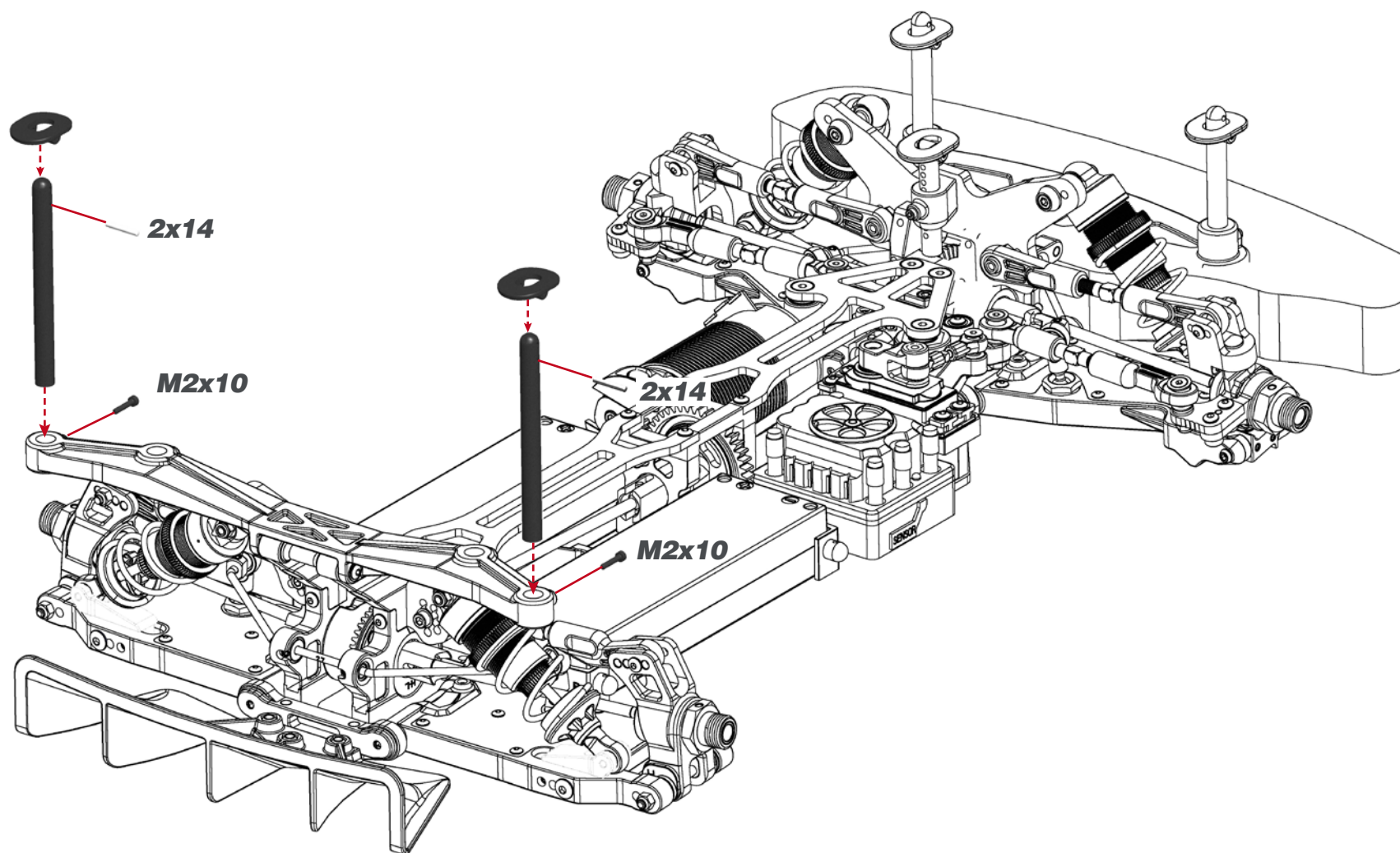
## STEP 47

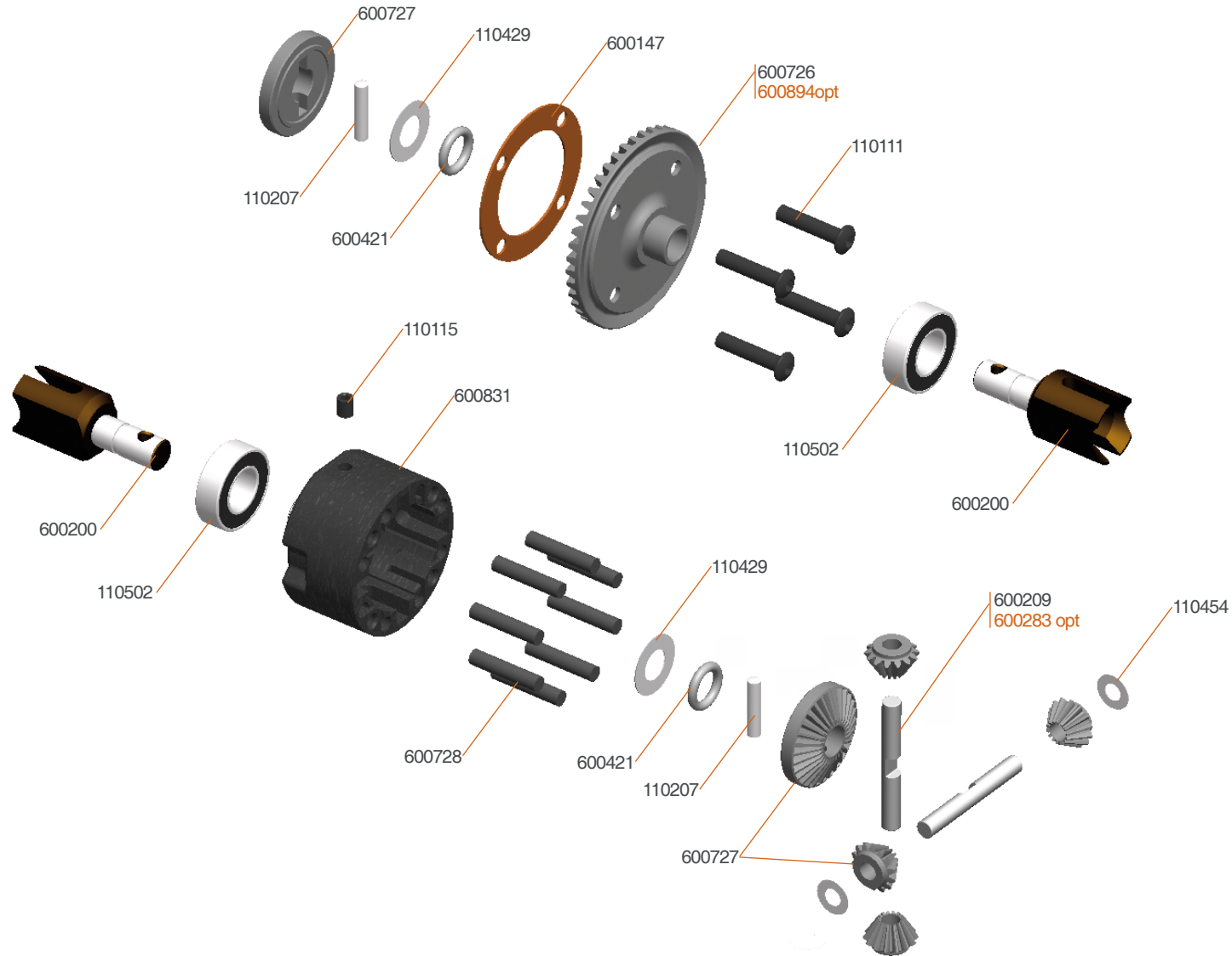
BAG 11



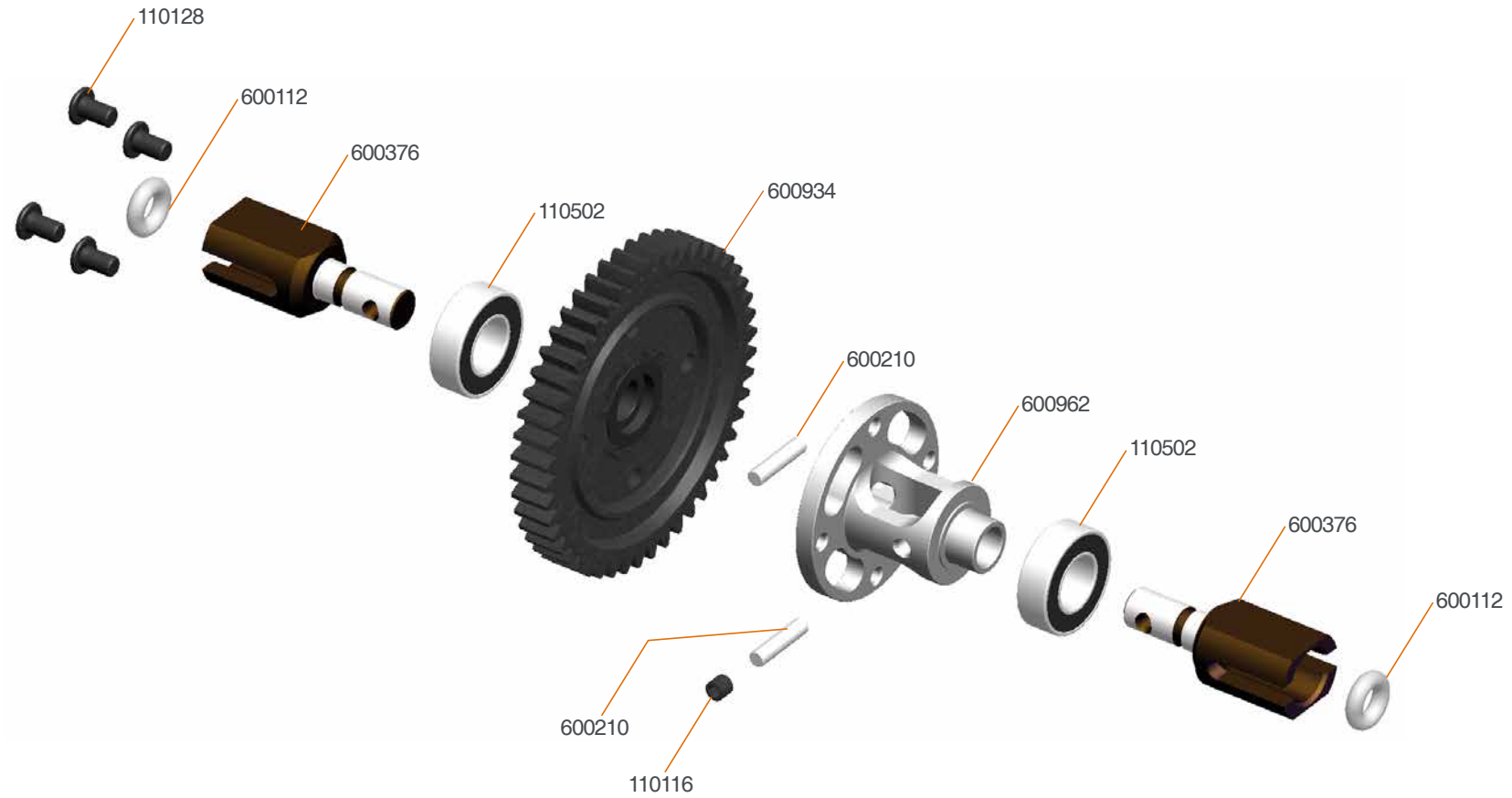


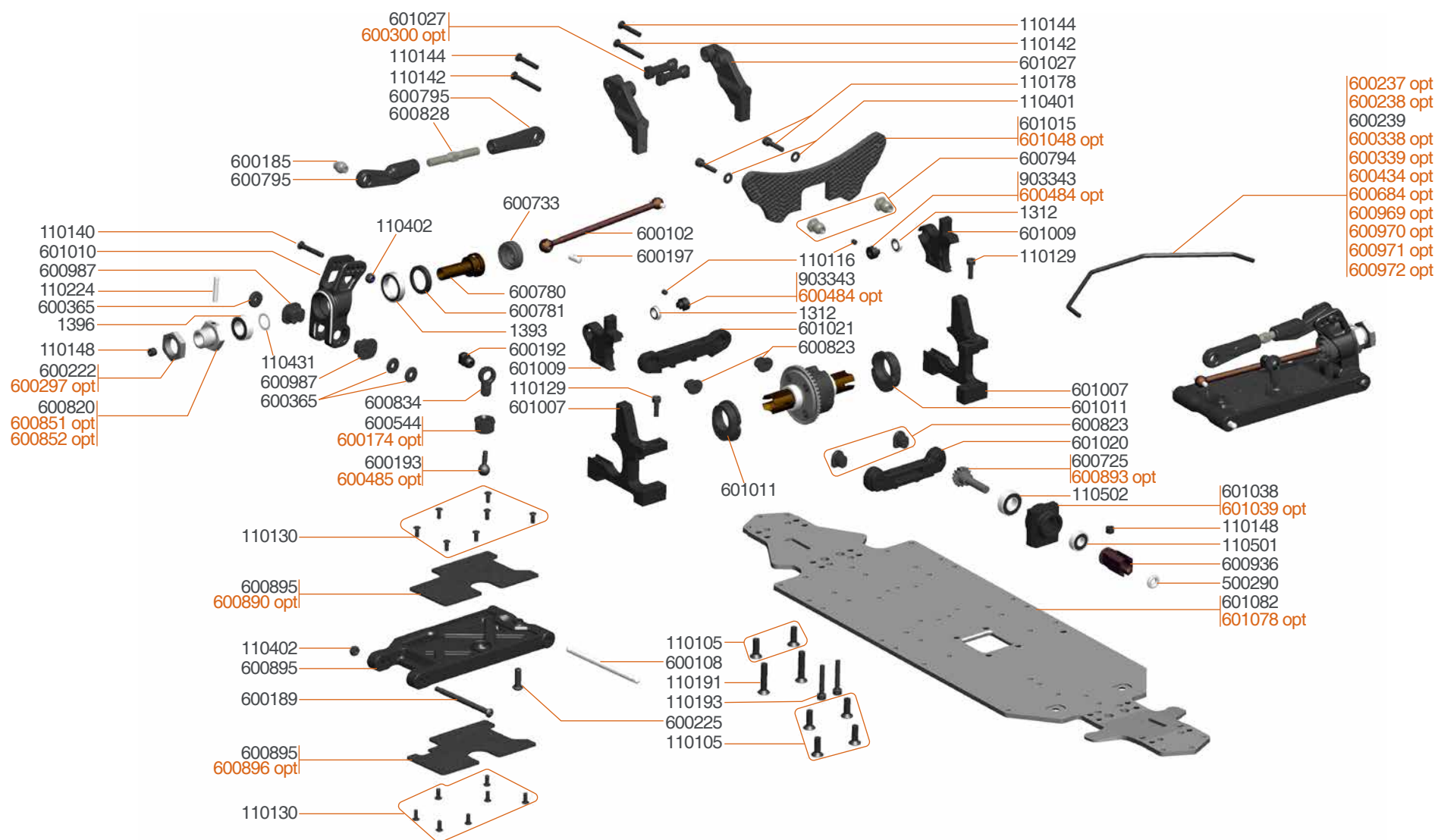
## STEP 48





600894 Overdrive diff gear 43T SRX8  
 600868 Diff set 44T front / rear SRX8  
 600283 Diff pin 10T alu (2)





600174 Antirollbar nut (2)  
 600300 Post wingmount alu (2)  
 600338 Antiroll bar rear 1.8mm  
 600339 Antiroll bar rear 2.0mm  
 600434 Antiroll bar rear 2.4mm  
 600237 Antiroll bar rear 2.3mm  
 600238 Antiroll bar rear 2.5mm

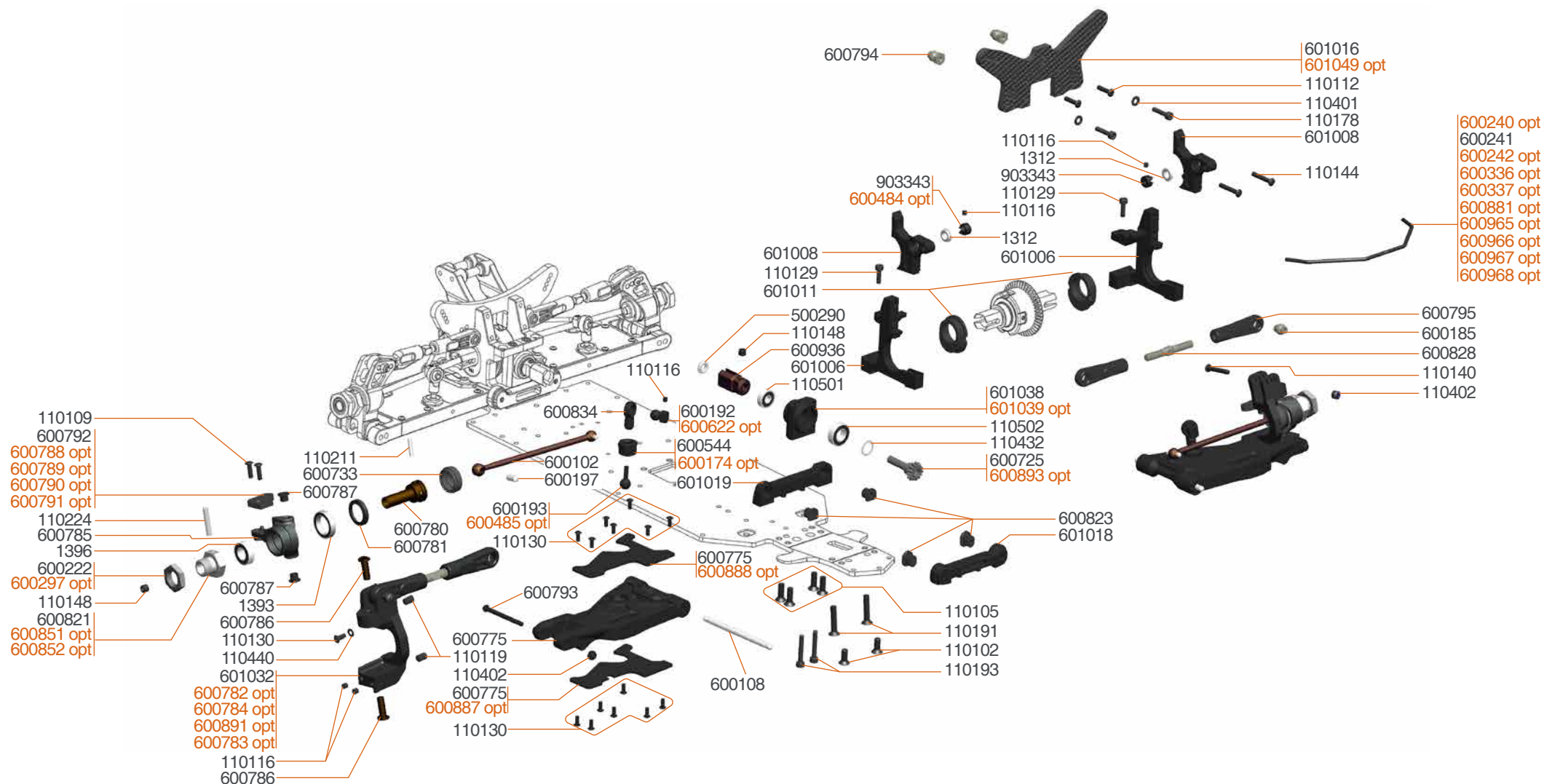
600684 Antiroll bar rear 3.0mm  
 600484 Antirollbar spacer 3mm alu (2)  
 600485 Pivotball threaded anti roll bar alu (2)  
 600896 Wishbone insert carbon RR Lower V2 SRX8  
 600851 Wheelhexagon 0mm light (2) SRX8  
 600852 Wheelhexagon +1mm light (2) SRX8  
 600890 Wishbone insert carbon RR Upper SRX8 (2)

600893 Overdrive diff pinion 13T SRX8  
 600969 Antiroll bar rear 2.2 mm  
 600970 Antiroll bar rear 2.4 mm  
 600971 Antiroll bar rear 2.6 mm  
 600972 Antiroll bar rear 2.8 mm  
 600297 Wheelnut light 17mm (4)

601048 Shock Tower RR Straight arm SRX8-GT  
 601078 Chassis alu SRX8 GTE  
 601085 Upright riser HT SRX8 GT





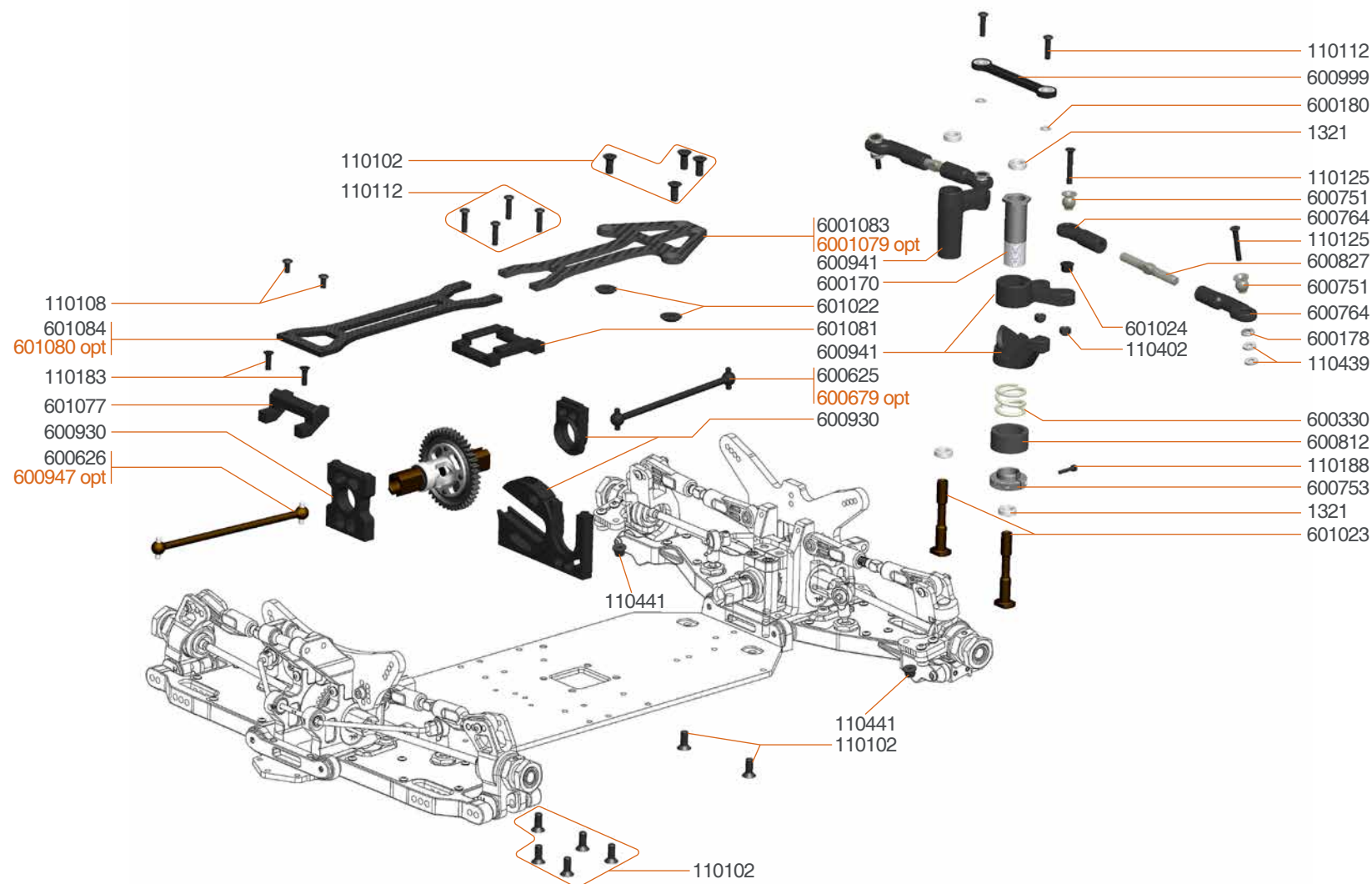


600139 Pinion mount alu M SRX8 GT  
600174 Antirollbar nut (2)  
600336 Antiroll bar front 1.8mm  
600337 Antiroll bar front 2.0mm  
600240 Antiroll bar front 2.3mm  
600242 Antiroll bar front 2.7mm  
600297 Wheelnut light 17mm (4)

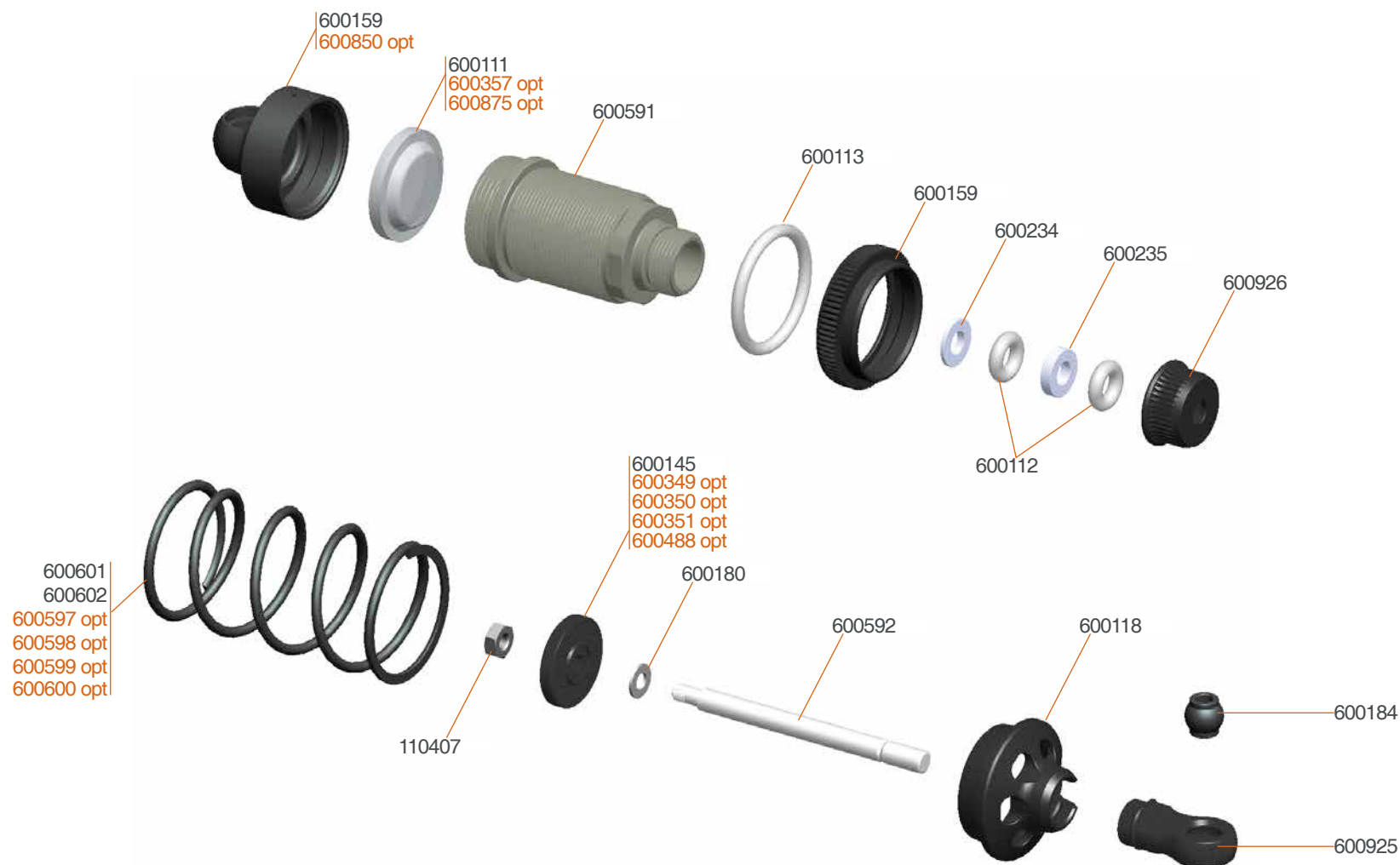
600484 Antirollbar spacer alu (2)  
600485 Pivotball threaded anti roll bar alu (2)  
600622 Pivotball antirollbar alu (4)  
600782 C-hub 13deg L+R alu SRX8  
600783 C-hub 15deg L+R alu SRX8  
600784 C-hub 17deg L+R alu SRX8  
600788 Steering arm 0 carbon (2) SRX8  
600789 Steering arm 1 carbon (2) SRX8

600851 Wheelhexagon 0mm light (2) SRX8  
600852 Wheelhexagon +1mm light (2) SRX8  
600881 Antiroll bar front 3.0 mm  
600887 Wishbone insert carbon FR Lower  
600888 Wishbone insert carbon FR Upper  
600790 Steering arm 2 carbon (2) SRX8  
600791 Steering arm 3 carbon (2) SRX8

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  
601049 Shock Tower FR Straight arm SRX8



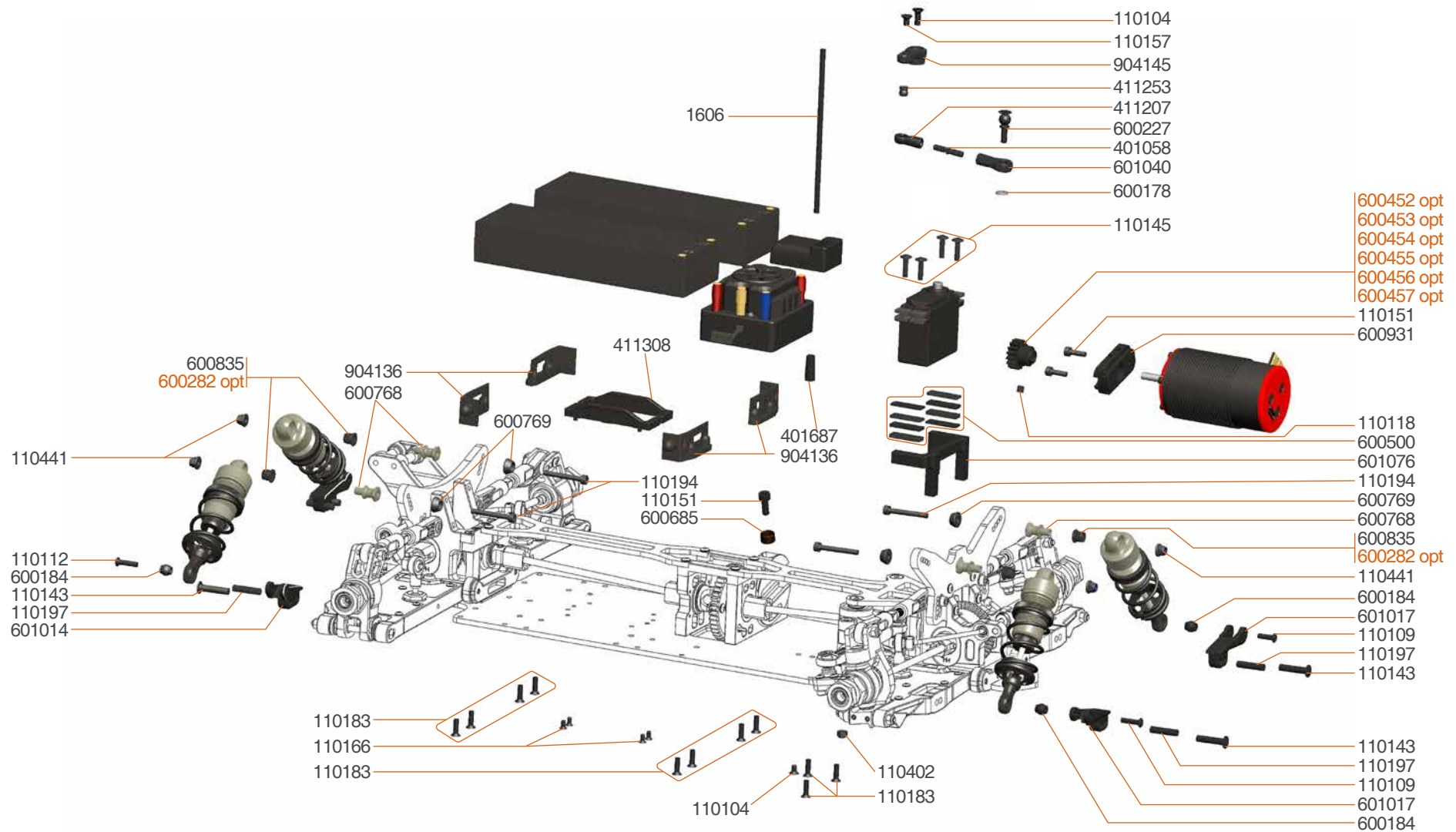
- 601079 Topdeck fr carbon SRX8 GTE
- 601080 Topdeck rr carbon SRX8 GTE
- 600679 Driveshaft RR 811 2.0 S (2)
- 600974 Chassis alu coated SRX8 EVO
- xxxxxxx Conversion set SRX GTE LWB to SWB



600595 Shockset fr/r 811GT (2)  
 600597 Spring Fr/Rr Red 811GT 18lbs (2)  
 600598 Spring Fr/Rr Purple 811GT 21lbs  
 600599 Spring Fr/Rr Yellow 811GT 29lbs

600600 Spring Fr/Rr White 811GT 31.5lbs  
 600357 Membrane webbed silicone (4)  
 600875 Shock top gasket (4) SRX8  
 600349 Shock pistons conical 6 hole (4)

600350 Shock pistons conical 8 hole (4)  
 600351 Shock pistons conical 10 hole (4)  
 600488 Shock pistons square 8 hole (4)  
 600850 Shock cap pro hard coated (2) SRX8

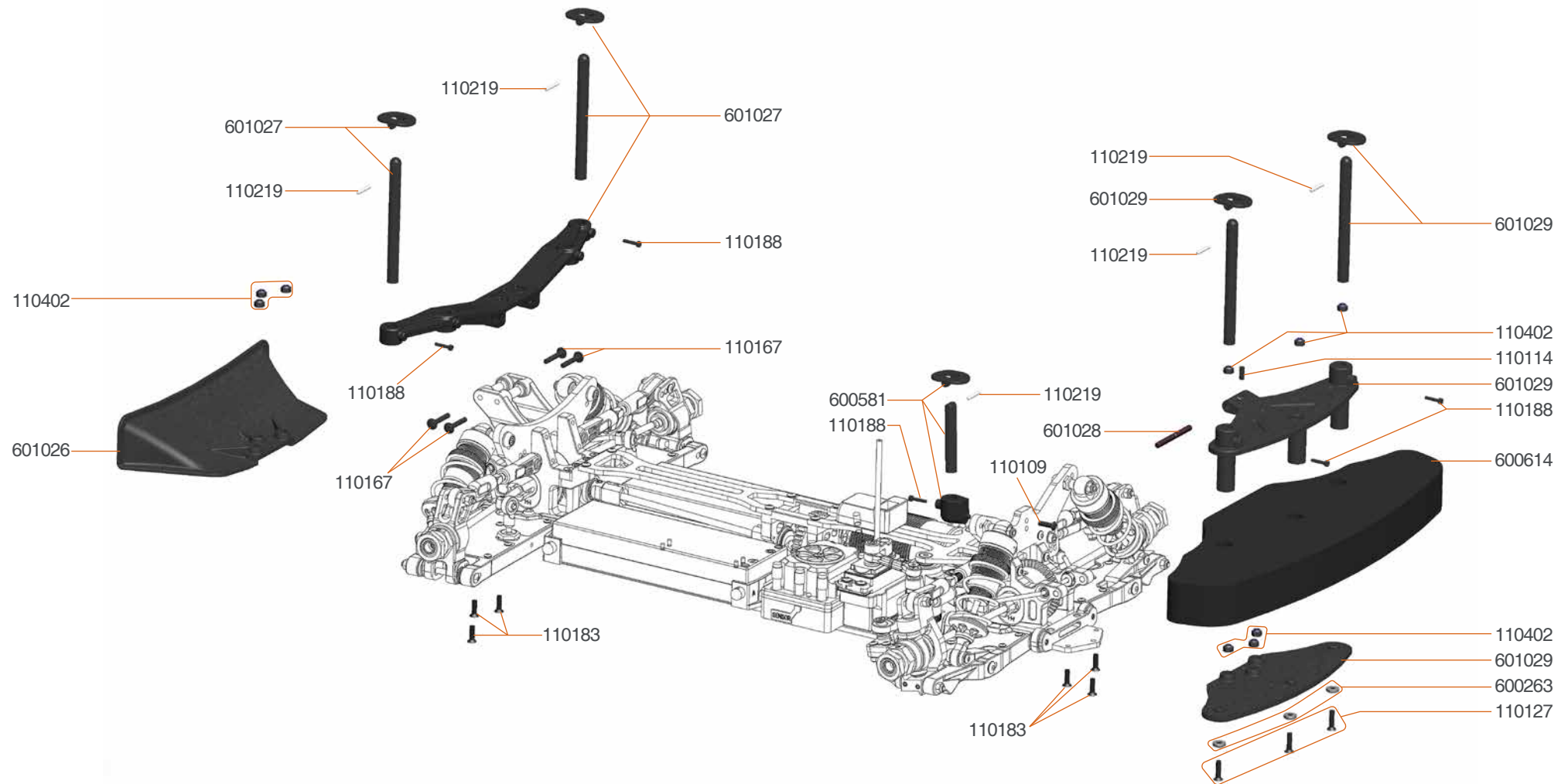


600282 Shock bushing delrin (4)  
 600452 Pinion 12T  
 600453 Pinion 13T  
 600454 Pinion 14T  
 600455 Pinion 15T

600456 Pinion 16T  
 600457 Pinion 17T



# BUMPER AND BODYMOUNT EXPLODED VIEW



- 601050 Bumperplate carbon set SRX8 GT
- 601051 Bodypost brace carbon fr/rr SRX8 GT

# TEAM SERPENT NETWORK

**SRX8 GTE SPARE PARTS** [www.serpent.com/600058/spares/](http://www.serpent.com/600058/spares/)



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# INSTRUCTION MANUAL

**SRX8 GTE**  
LONG WHEEL BASE

**1/8 SCALE**

**Instruction  
Manual**



Manual SRX8 GTE LWB #600060

**SERPENT**