

**INSTRUCTION
MANUAL**

SRX8
GTR

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 SRX8GT R 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 SRX8GT R. Fine-tuning the initial setup is an essential part of building a high-performance race car like your Serpent SRX8GT R.

EXPLODED VIEWS AND PARTS LIST

The exploded views and parts lists for the Serpent SRX8GT R 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 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 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
• GEARBOX ASSEMBLY	6
• CENTRAL ASSEMBLY	8
• REAR ASSEMBLY	10
• FRONT ASSEMBLY	17
• STEERING ASSEMBLY	23
• CLUTCH ASSEMBLY	26
• RADIO ASSEMBLY	29
• SHOCKS ASSEMBLY	34
• FINAL ASSEMBLY	38
• EXPLODED VIEWS	42
• TEAM SERPENT NETWORK	56

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.



Carefully, 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.

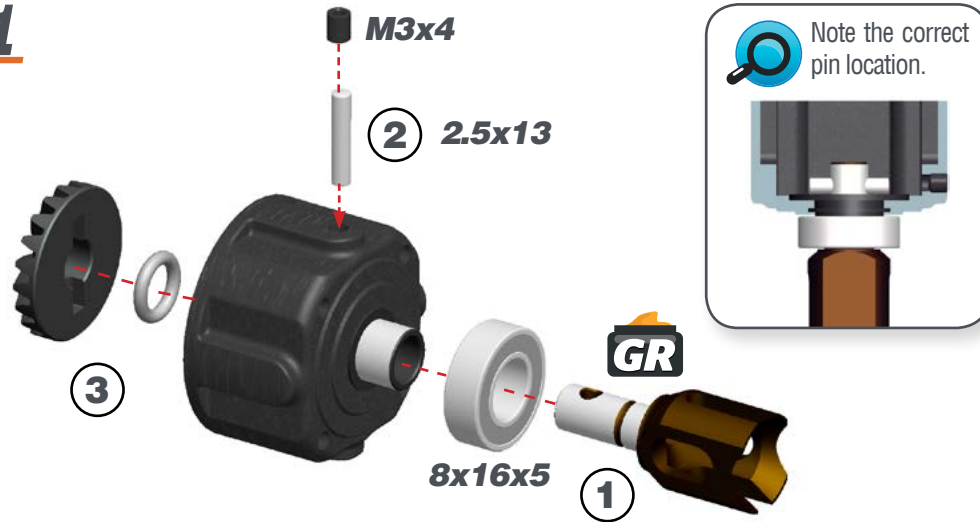


Optional part, not standard in the kit.

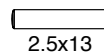
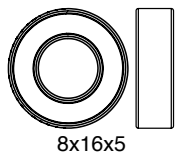
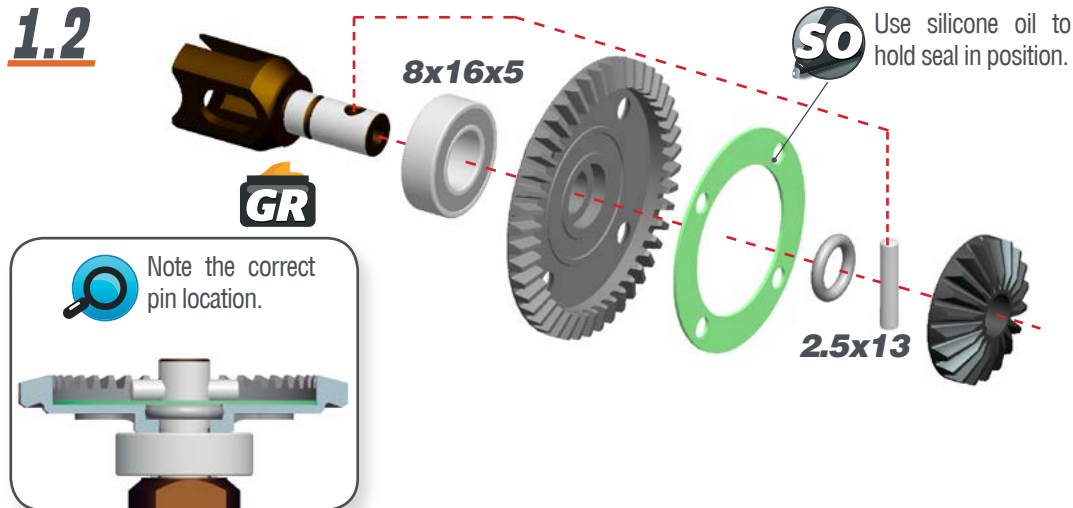
STEP 1

DIFF BAG FR/RR

1.1



1.2



STEP 2

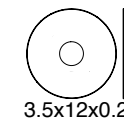
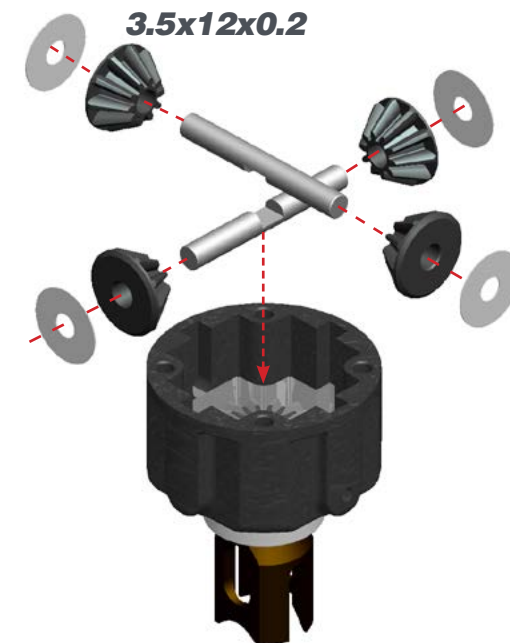
2.1

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.

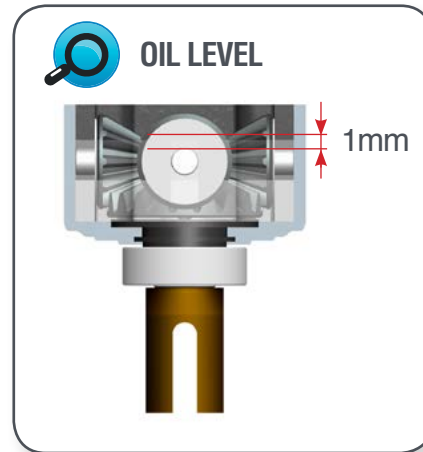


2.2



STEP 3

! 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

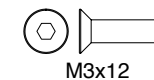
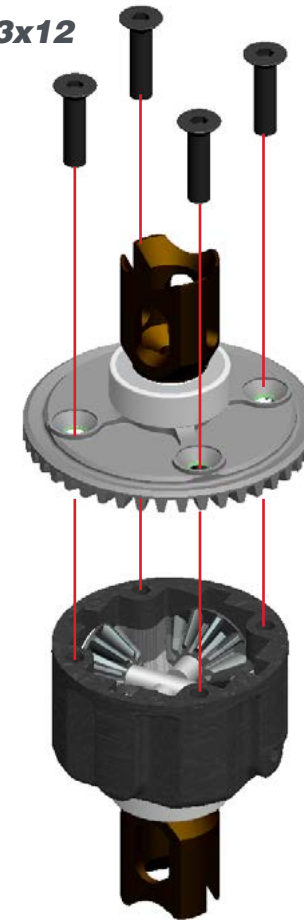
Use a digital scale to measure the exact amount of oil in the diff.

Differential weight should be 45.7-45.8 grams.



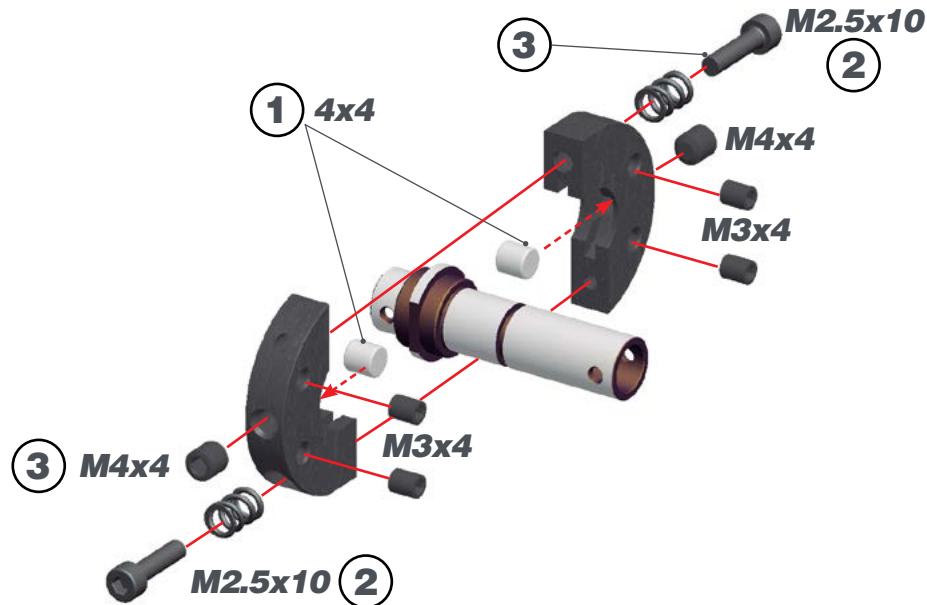
STEP 4

M3x12



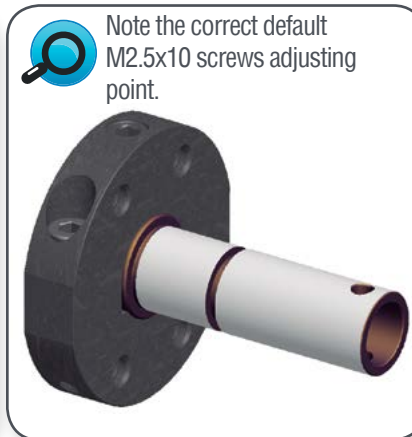
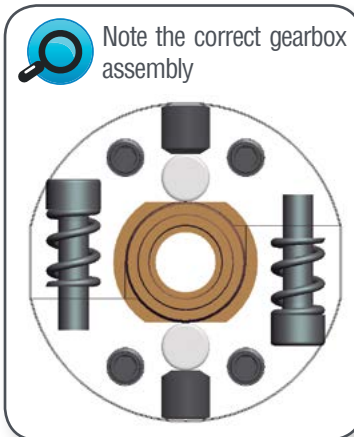
STEP 5

BAG 1



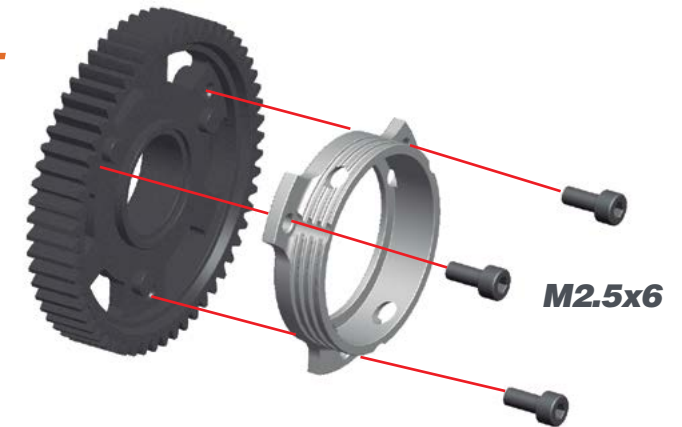
1- The M2.5x10 screws adjust the SHIFT POINT. As default adjustment screw them until the screws will be leveled with the hole as in the right pictures.

2- Adjust the M4x4 screw to minimise the gap between the shoes and the bell, but still spinning free without touching. Check after each run.

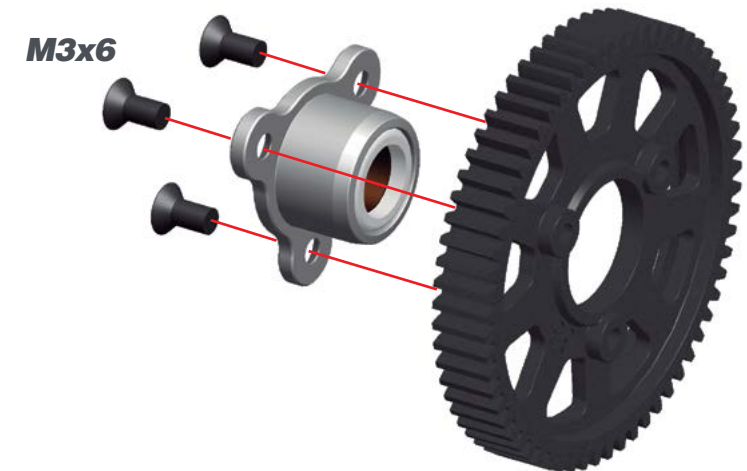


STEP 6

6.1

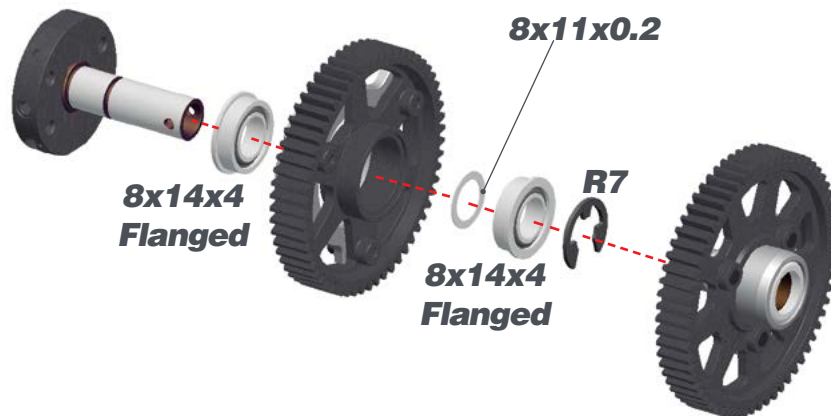


6.2

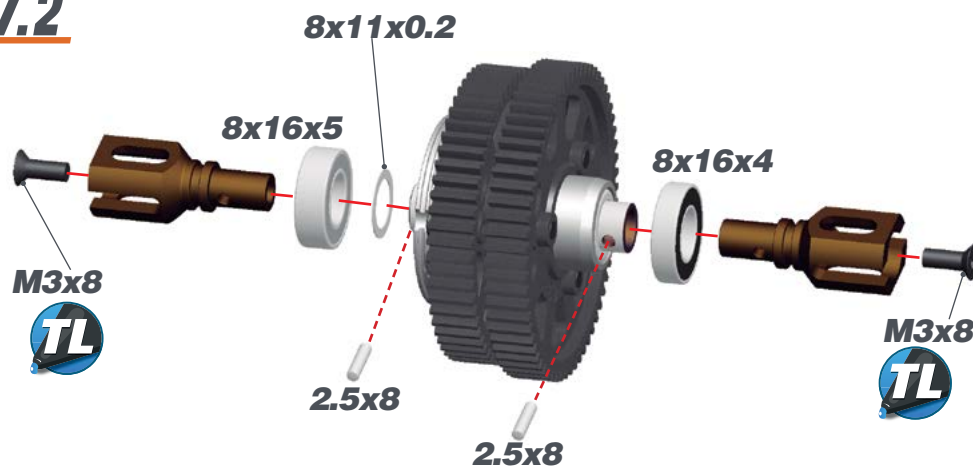


STEP 7

7.1

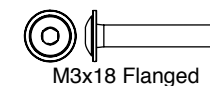
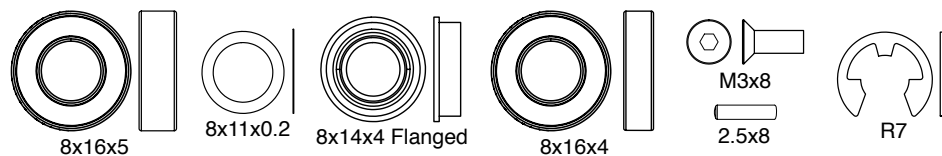
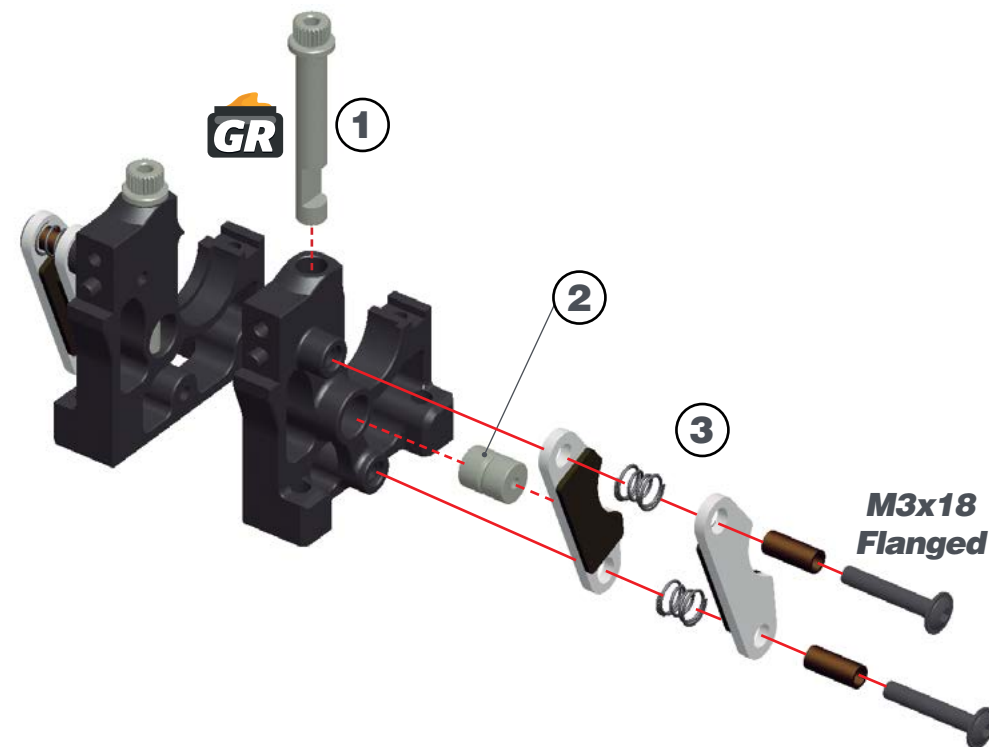


7.2



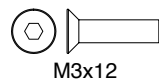
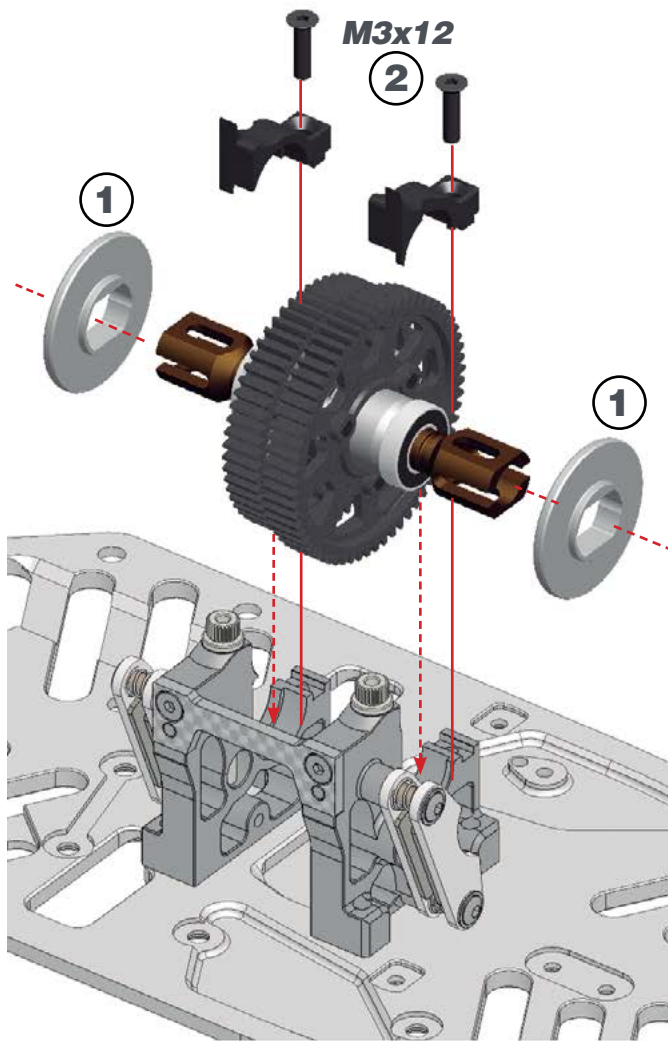
STEP 8

BAG 2



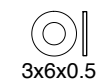
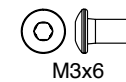
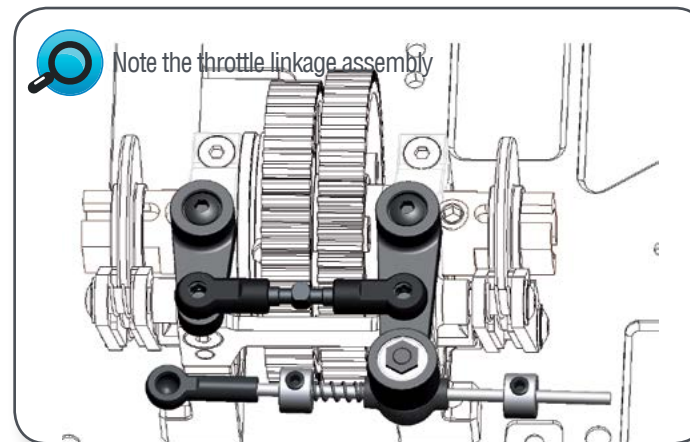
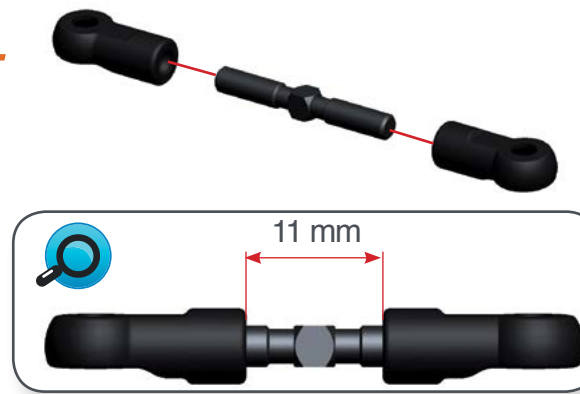


STEP 10

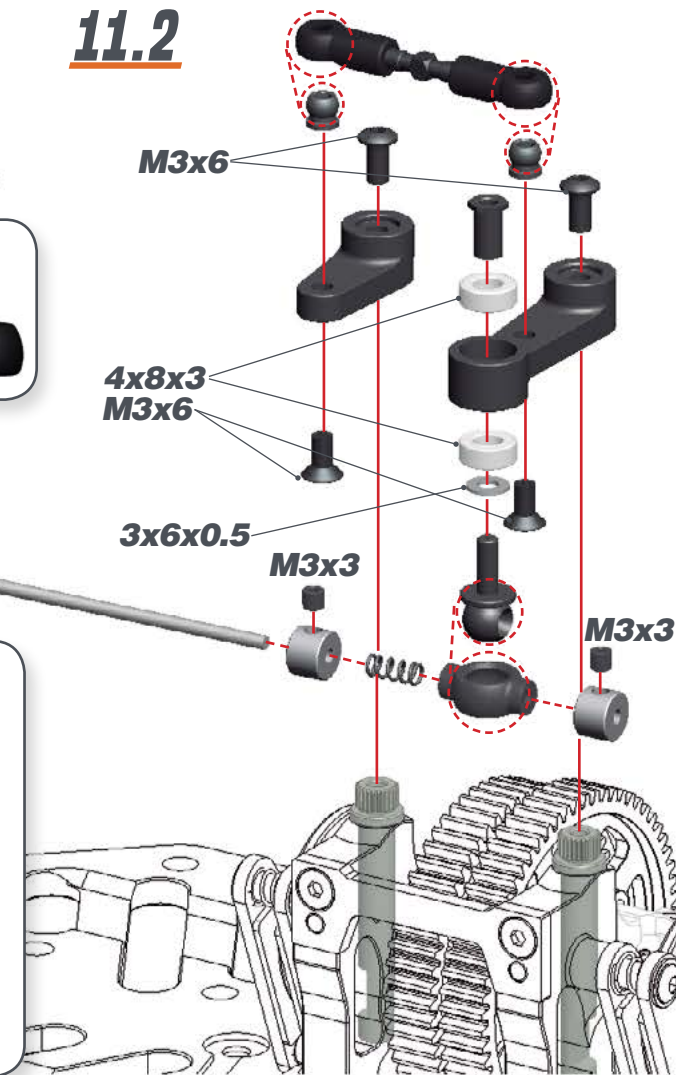


STEP 11

11.1

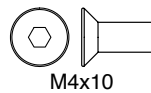
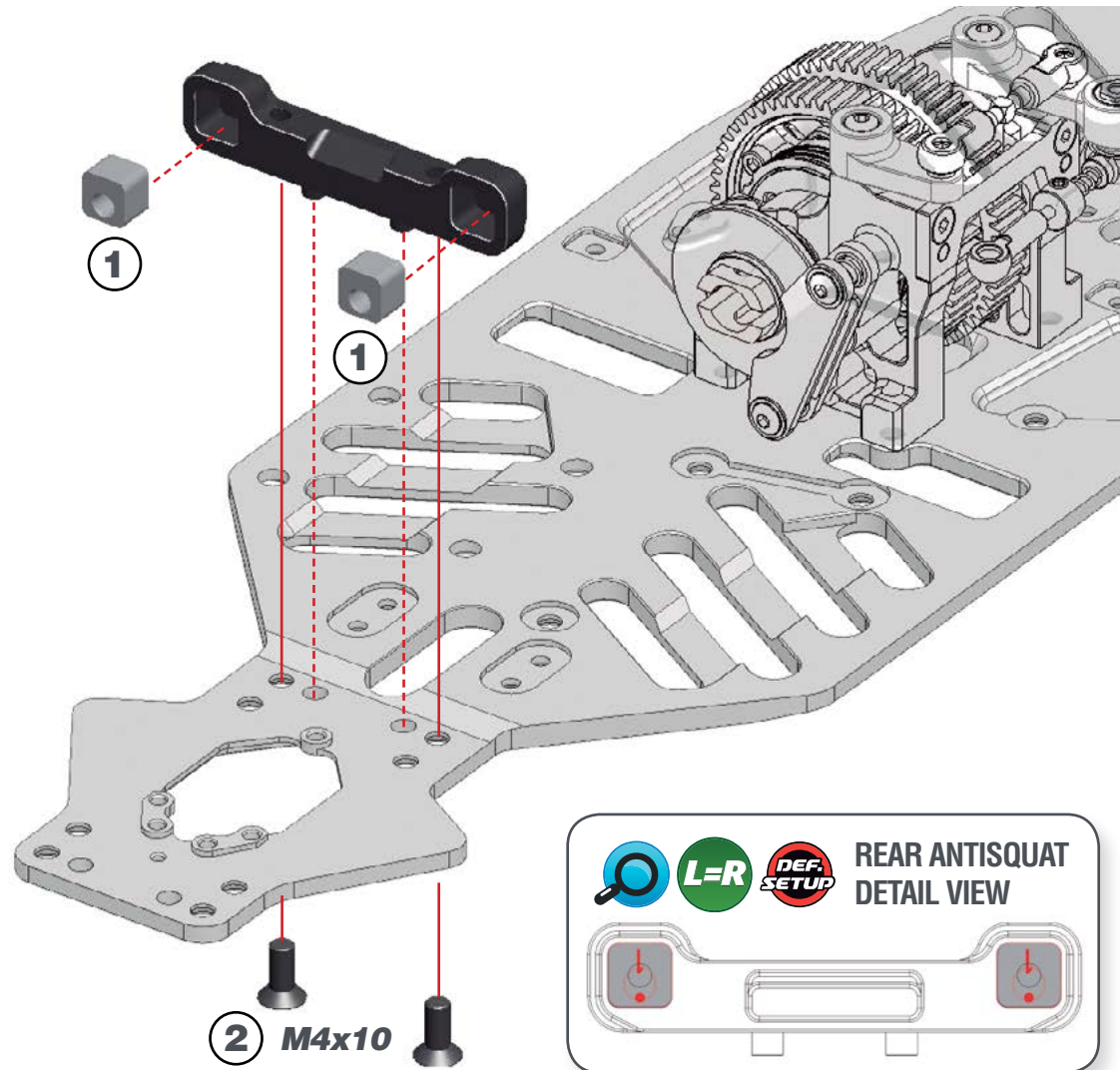


11.2

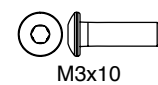
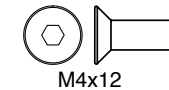
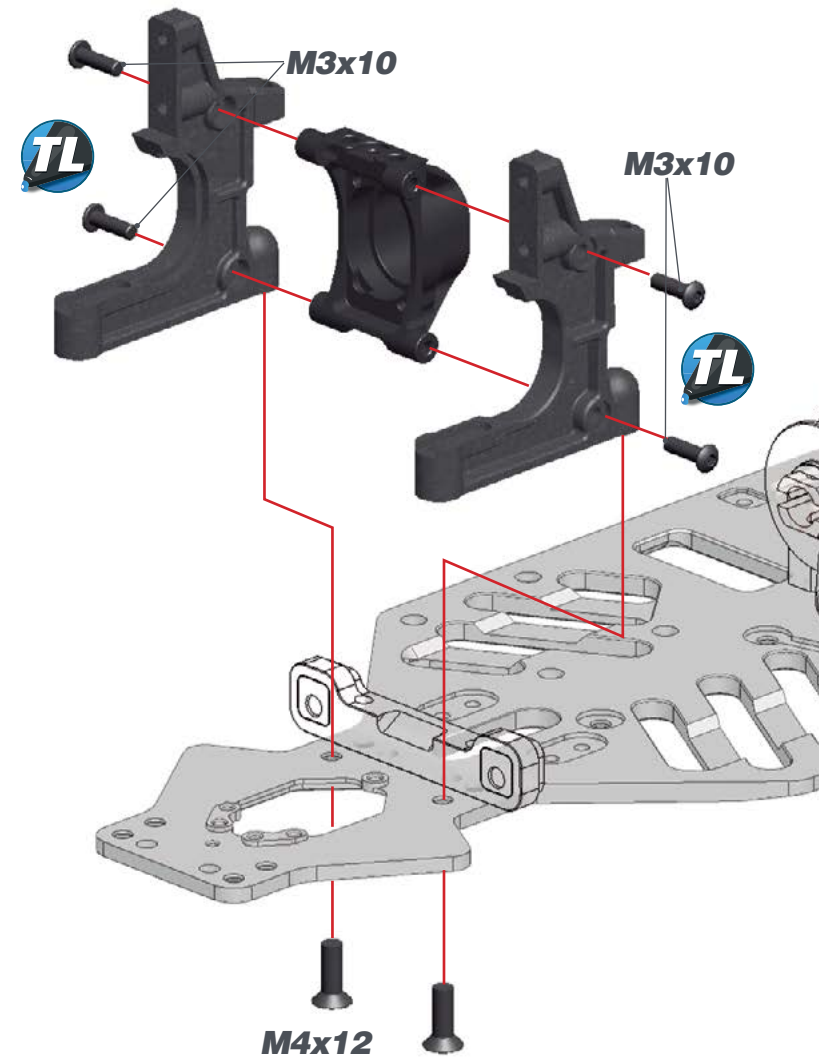


STEP 12

BAG 3

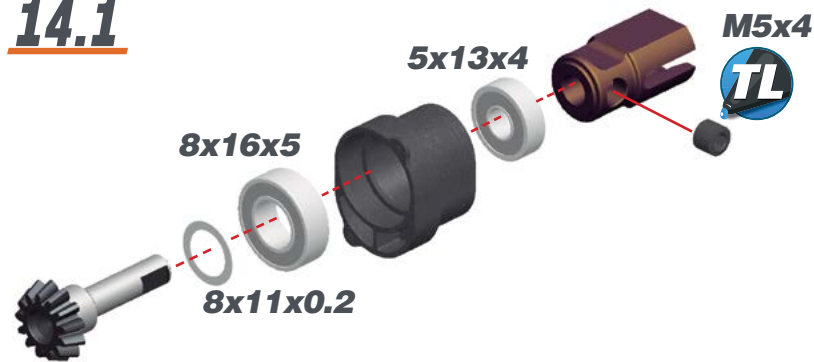


STEP 13



STEP 14

14.1



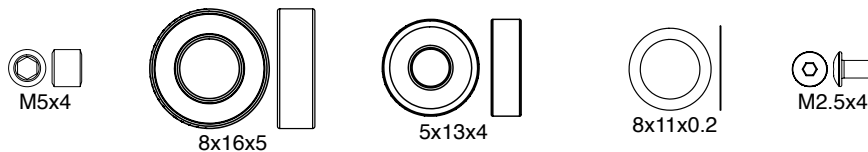
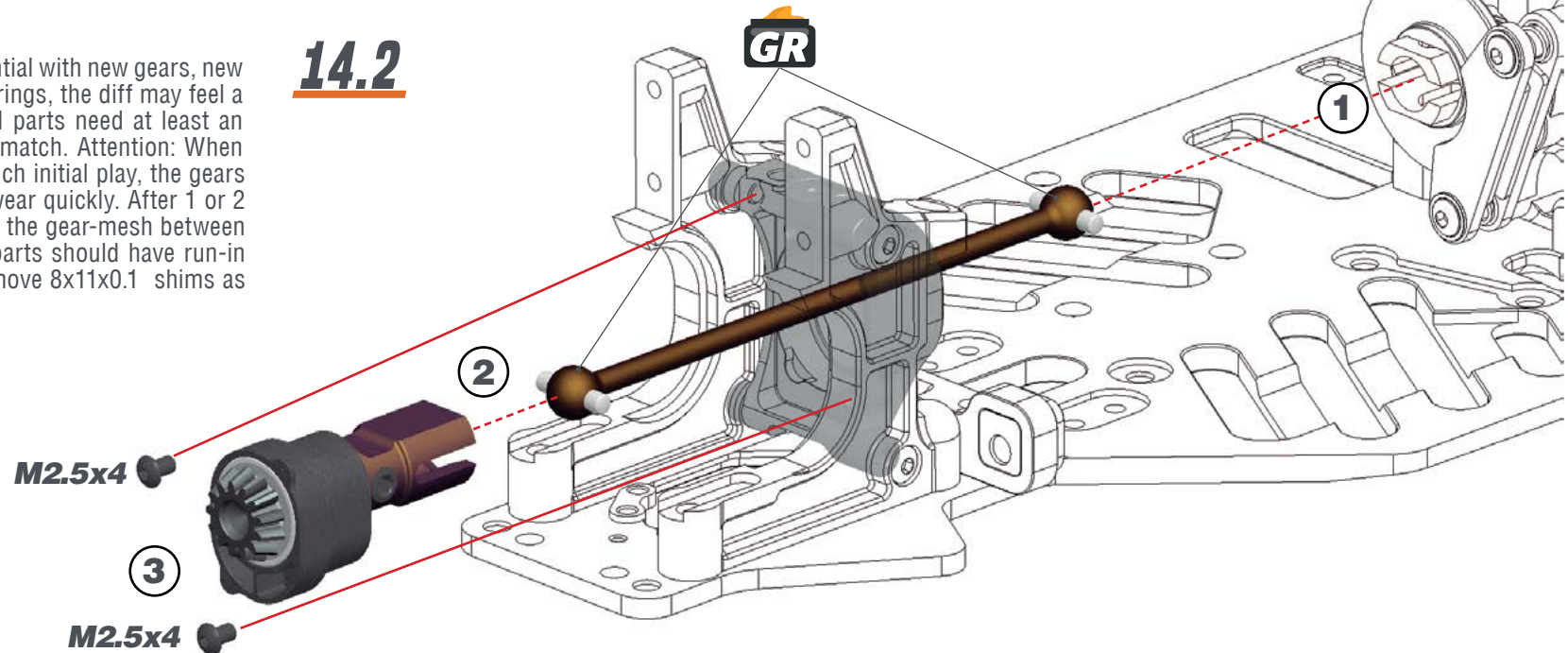
INDRIVE BRACKETS CHART
 Assemble the indrive bracket accordingly to the diff insert assert mouted in the step 18.

LOW	MID LOW	MID HIGH	HIGH

DEF. SETUP

! 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.

14.2



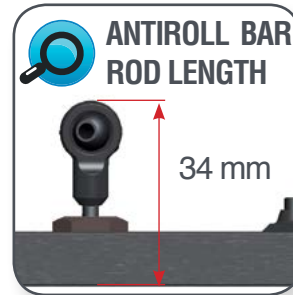
STEP 15

BAG 4

15.1 L=R



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

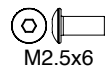


15.2

M2.5x6

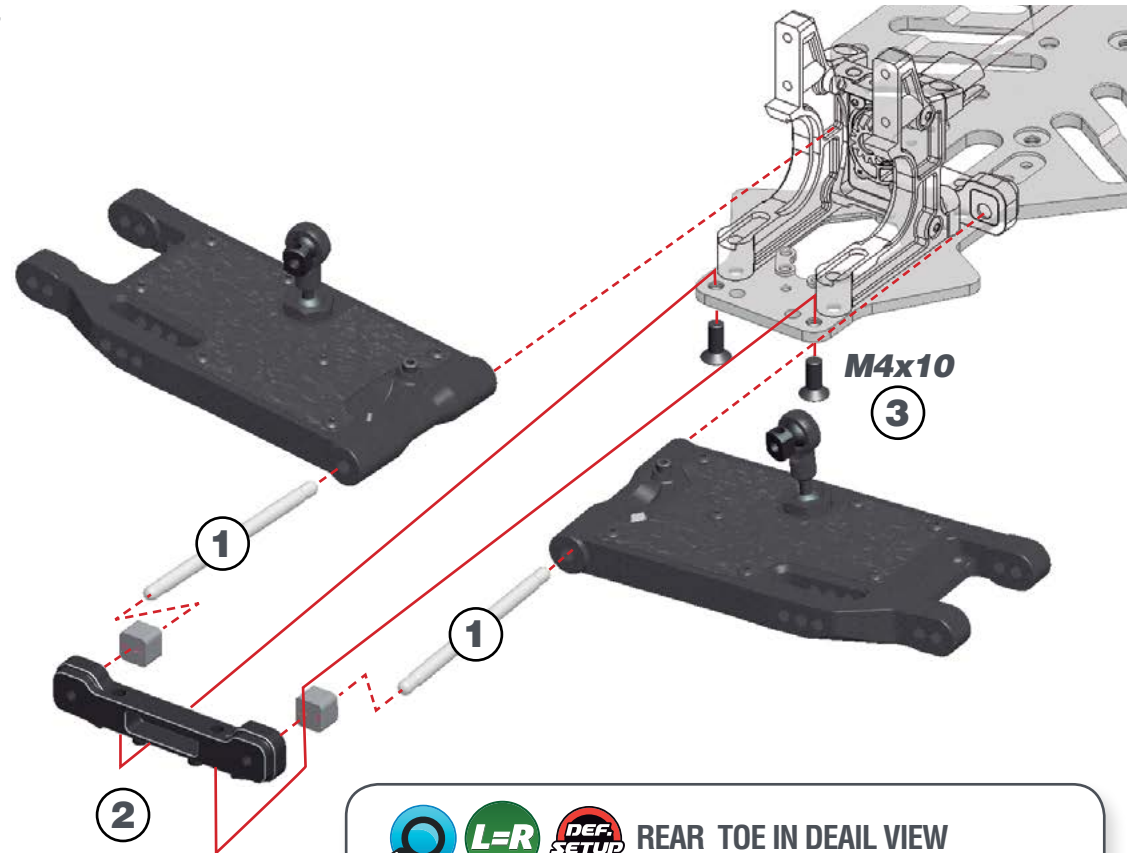


M2.5x6



M2.5x6

STEP 16



M4x10

3

1

1

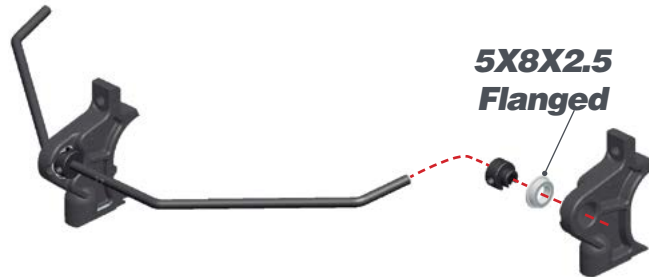
2



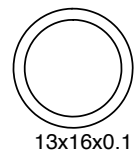
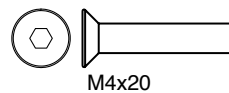
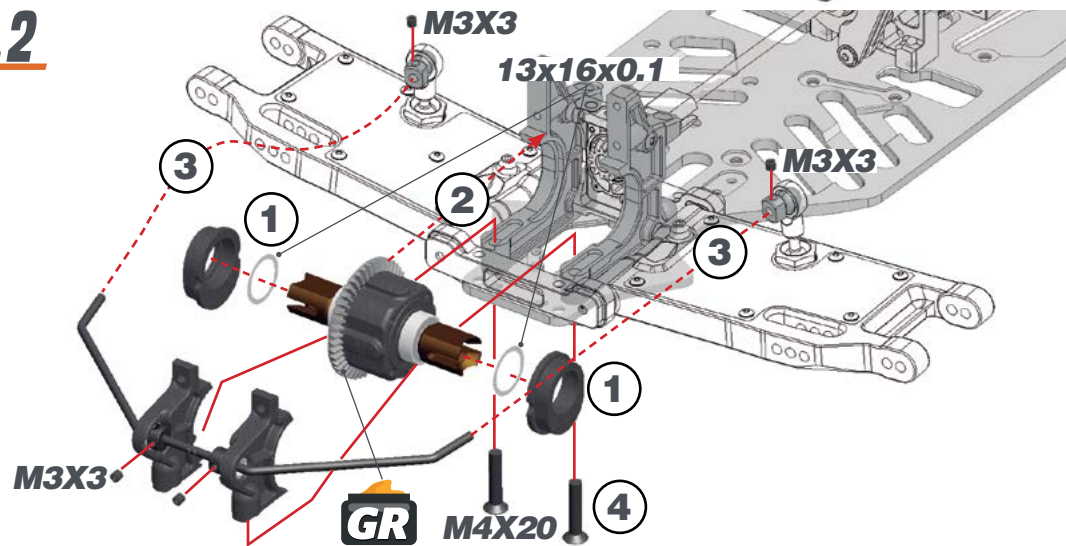
M4x10

STEP 17

17.1

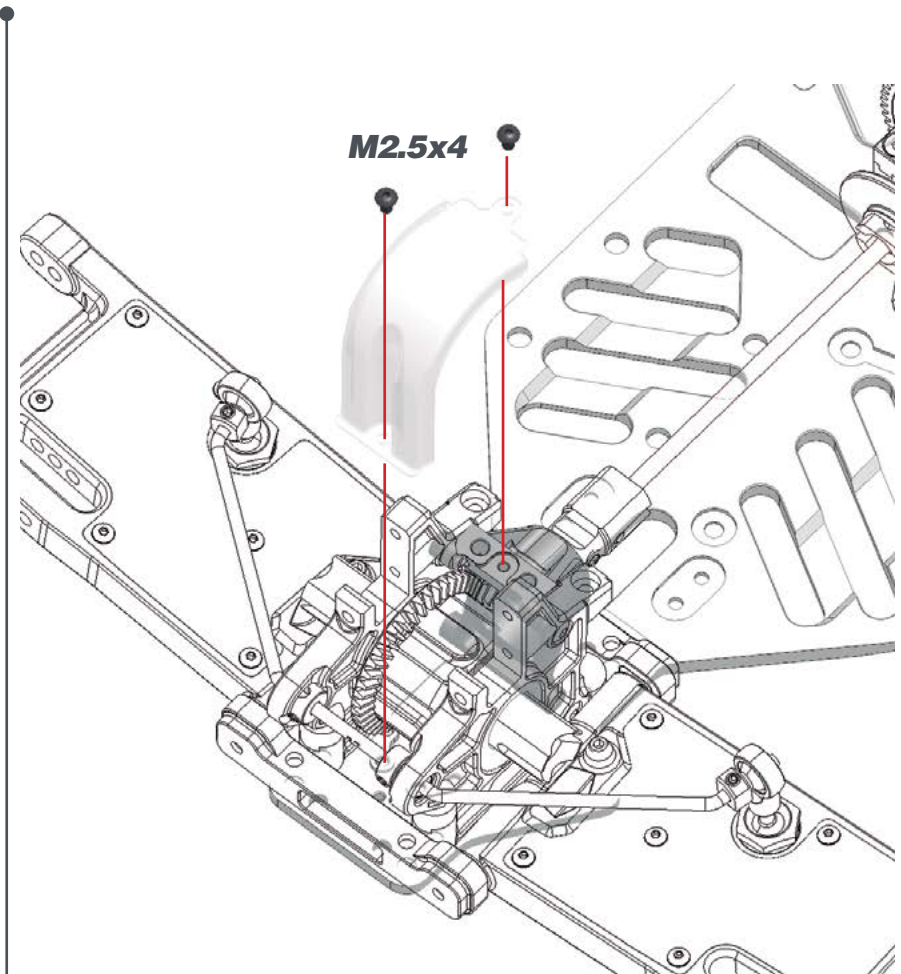


17.2



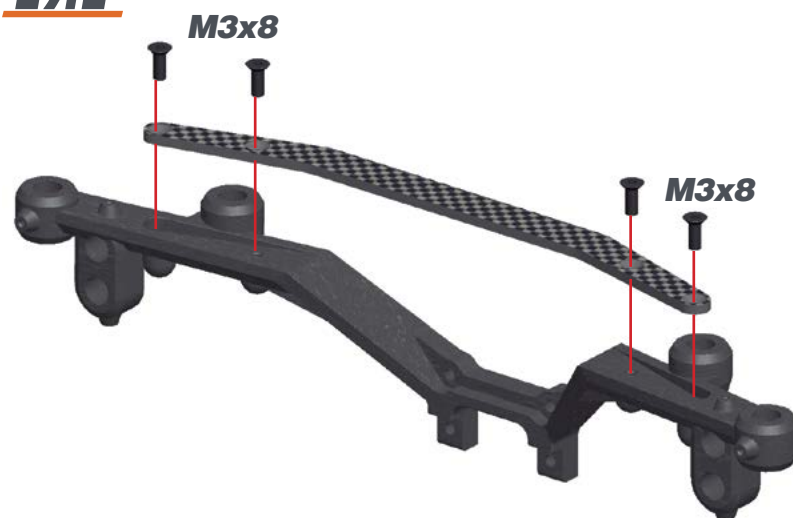
STEP 18

BAG 5

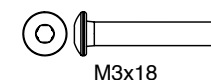
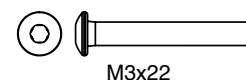
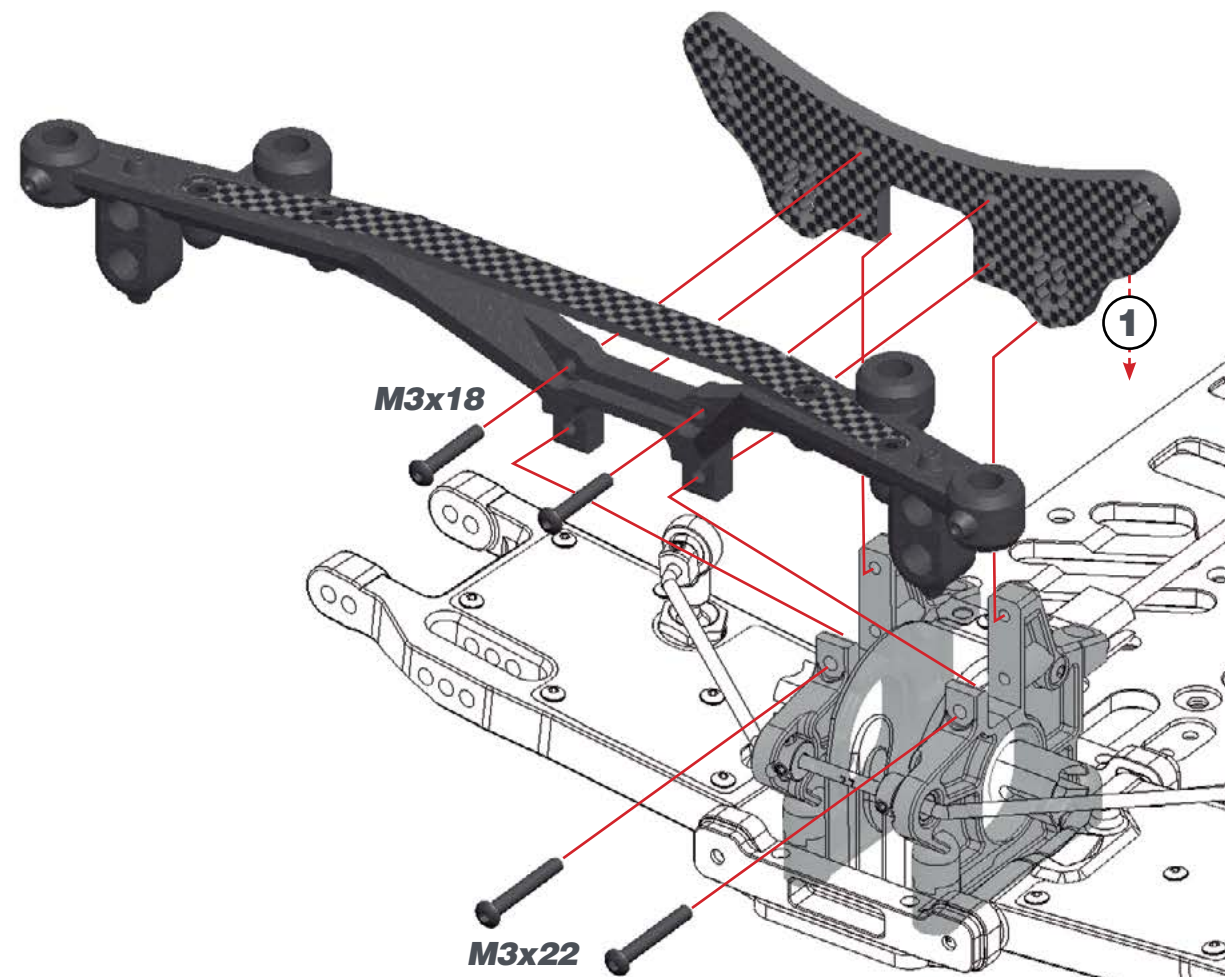


STEP 19

19.1



19.2



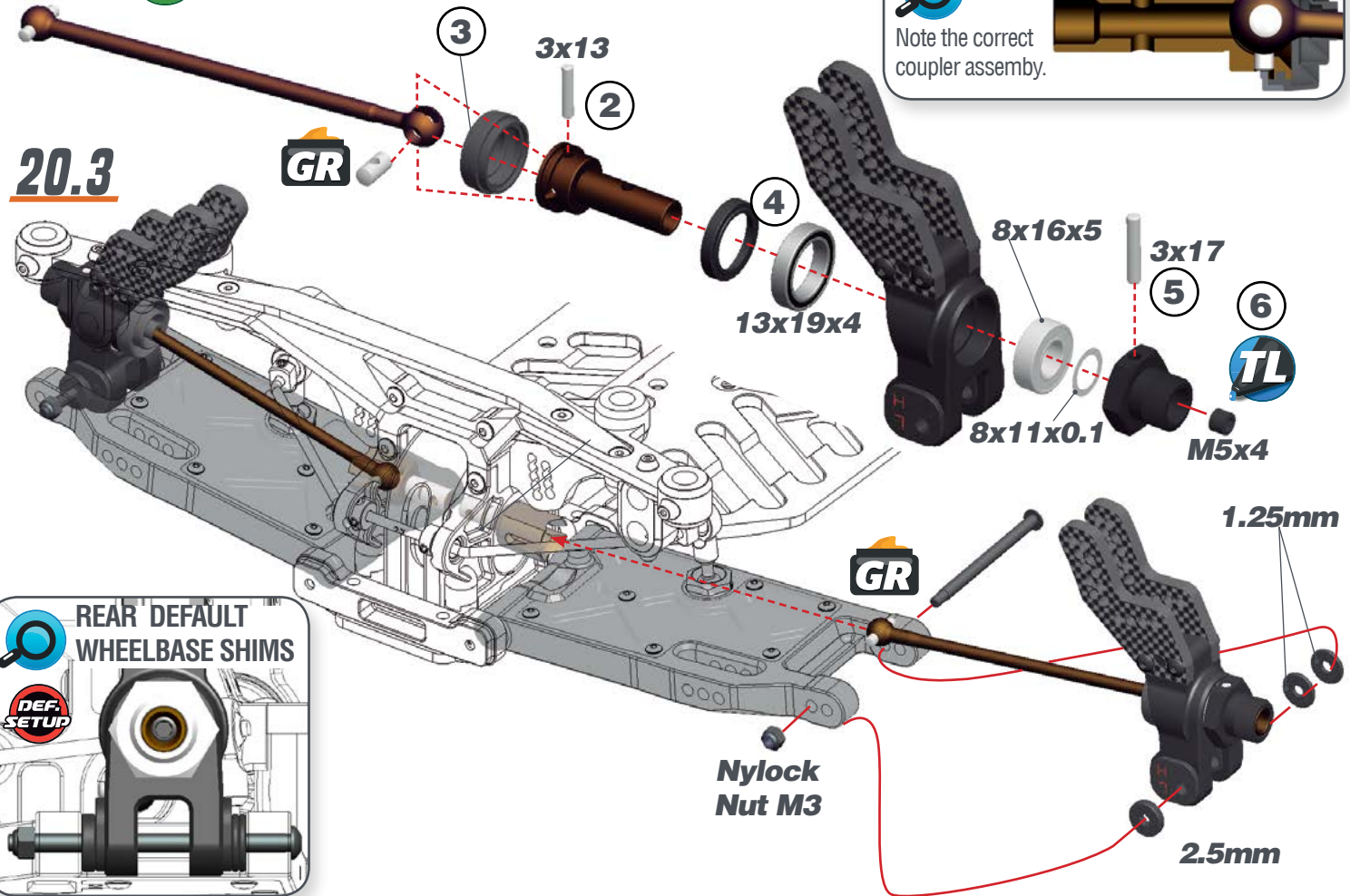
STEP 20

BAG 6

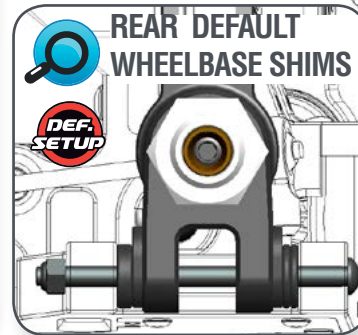
20.1 L=R



20.2 L=R



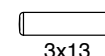
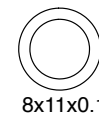
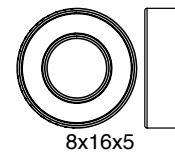
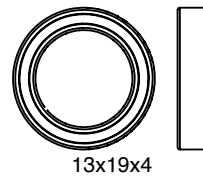
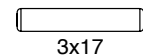
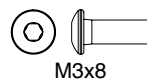
20.3



REAR UPRIGHT ROLL CENTER INSERTS CHART

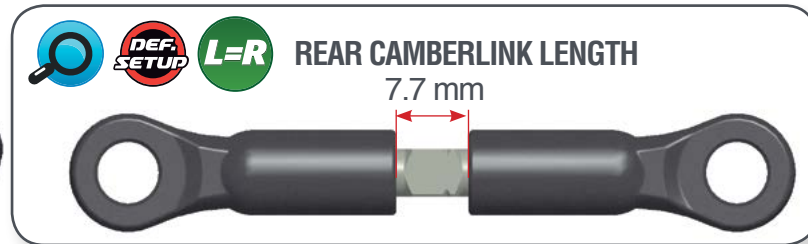
NARROW		WIDE	
L H	L H	L H	L H
ML HW	ML HW	ML HW	ML HW
MH TW	MH TW	MH TW	MH TW
H L	H L	H L	H L

DEF. SETUP

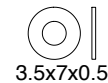
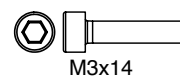
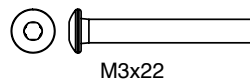
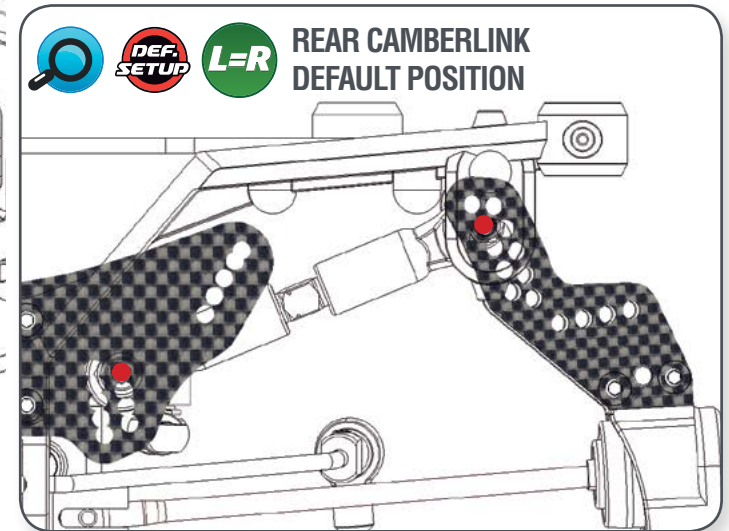
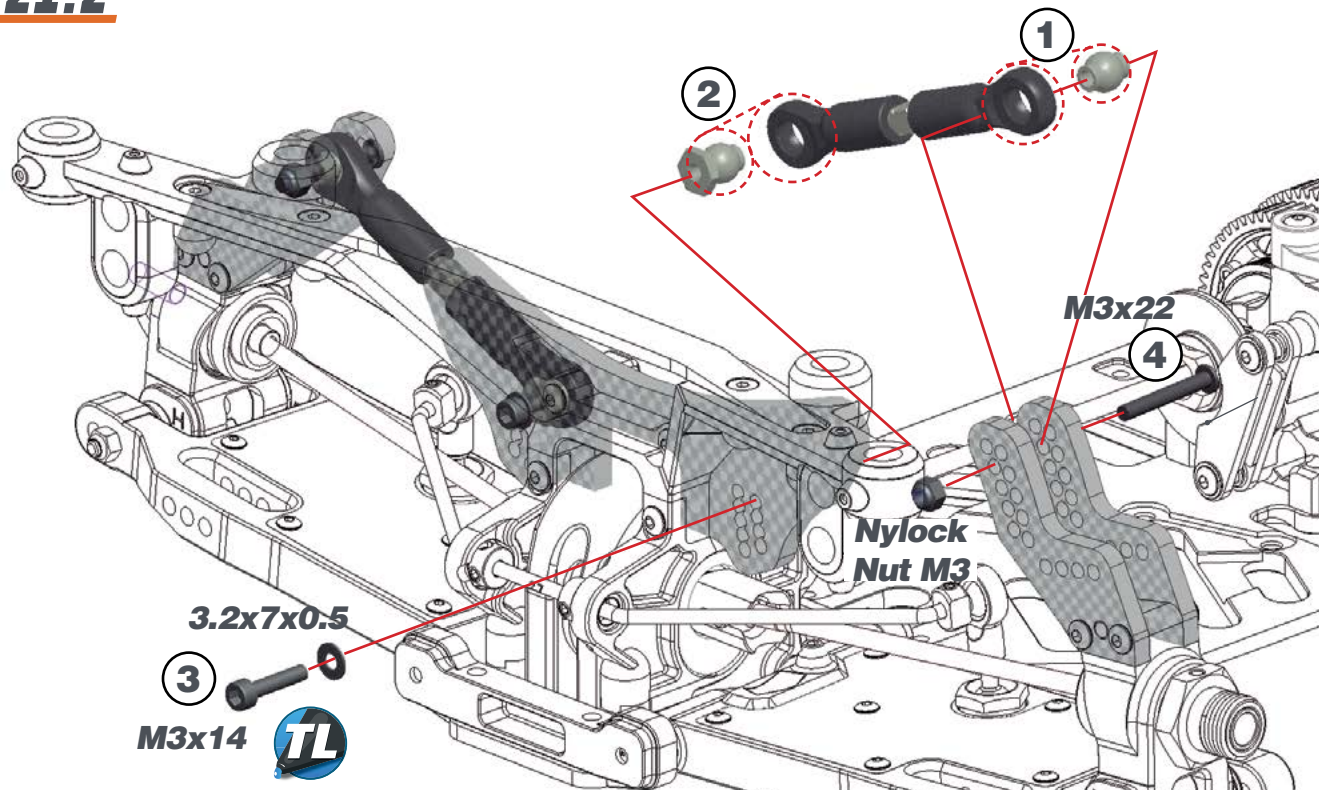


STEP 21

21.1

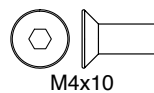
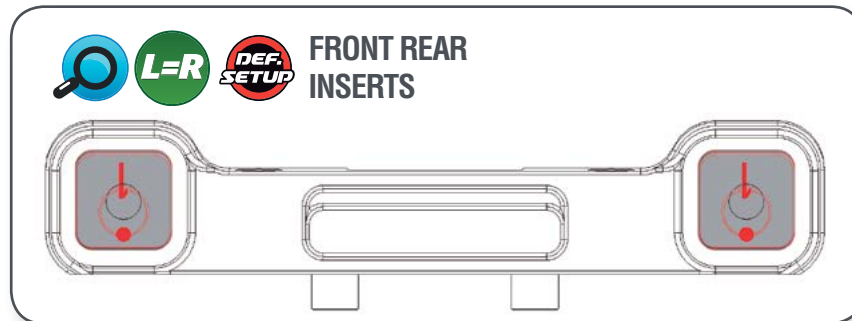
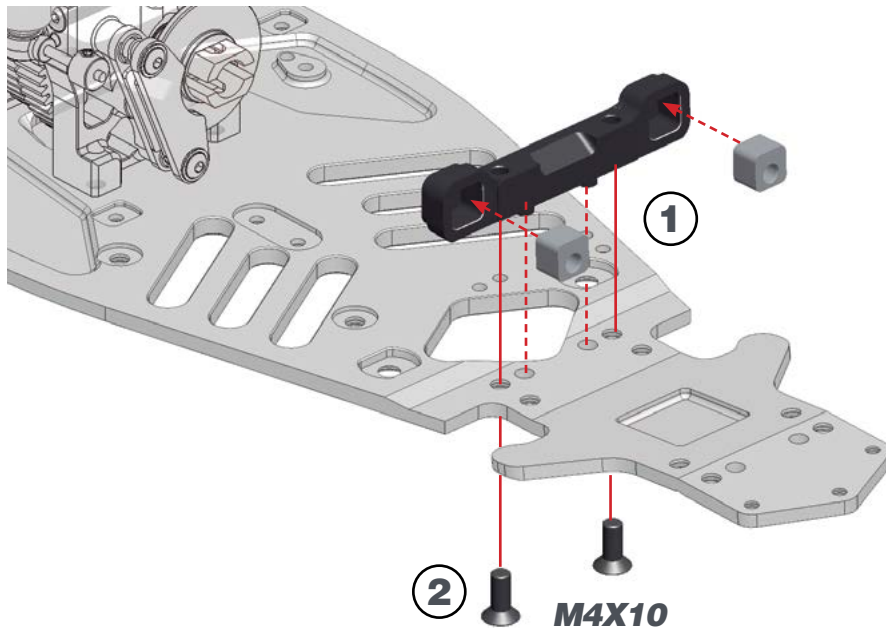


21.2

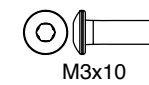
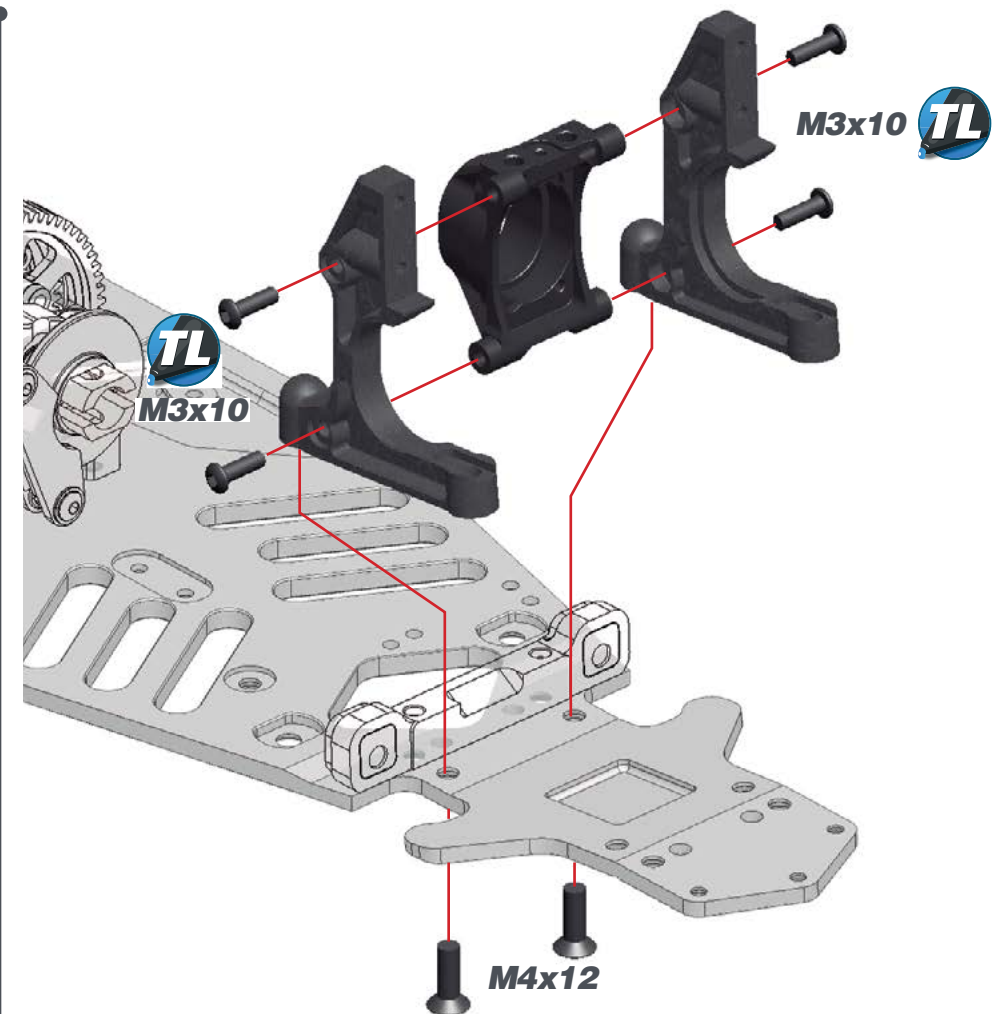


STEP 22

BAG 7

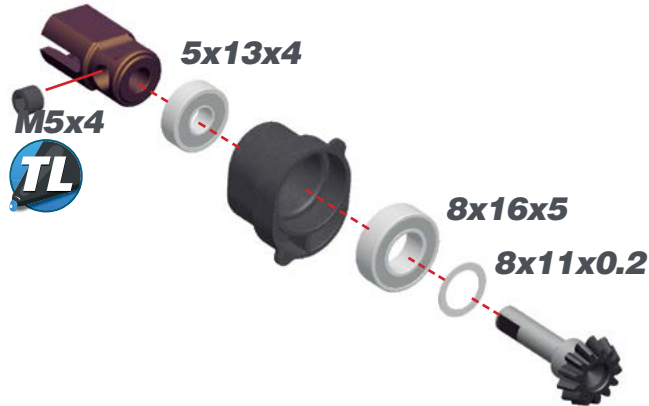


STEP 23



STEP 24

24.1



! 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.

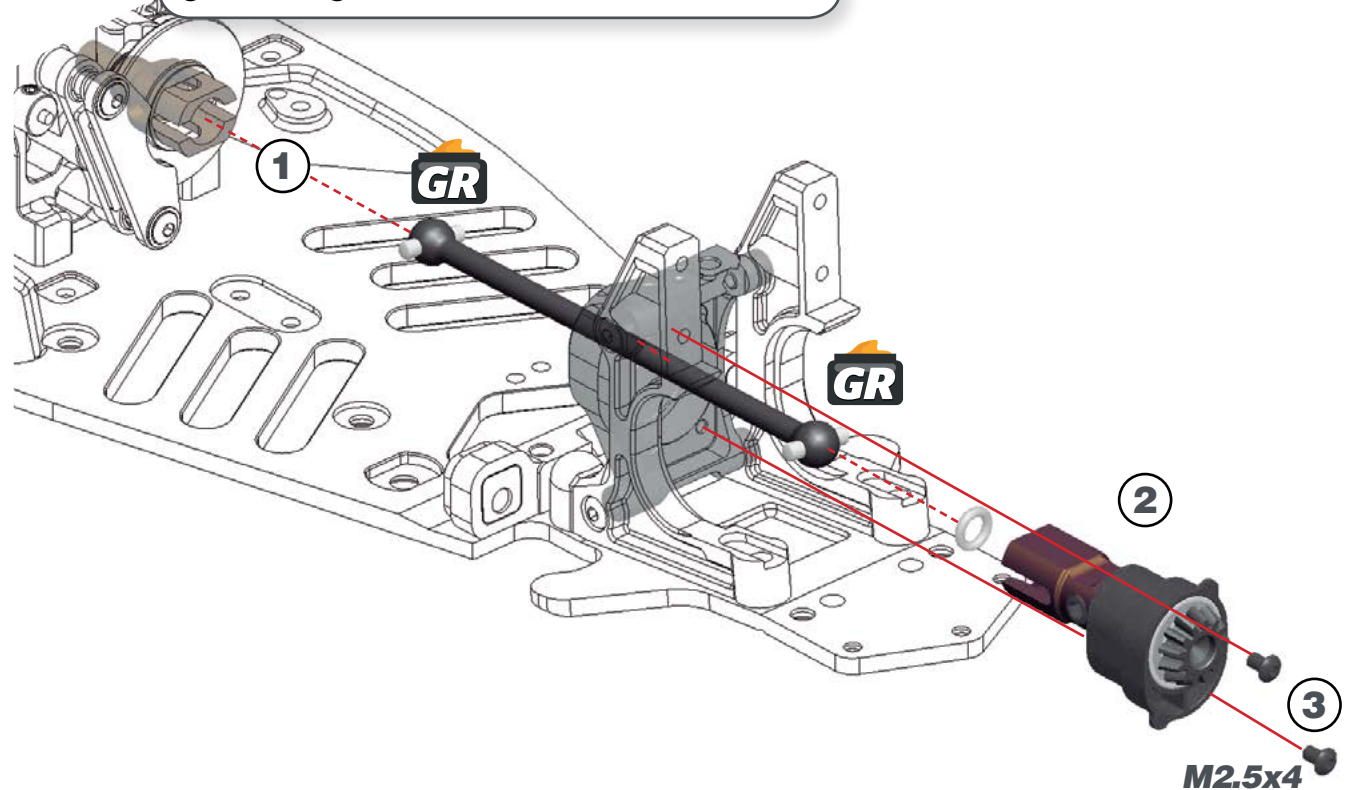
24.2



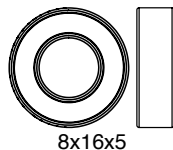
INDRIVE BRACKETS CHART

Assemble the indrive bracket according to the diff insert assert mouted in the step 18.

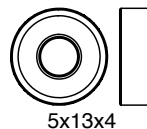
LOW MID LOW MID HIGH HIGH



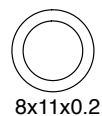
M5x4



8x16x5



5x13x4



8x11x0.2



M2.5x4

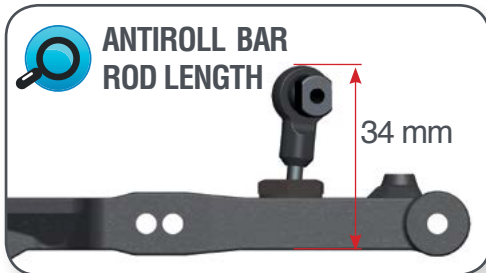
STEP 25

BAG 8

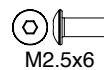
25.1



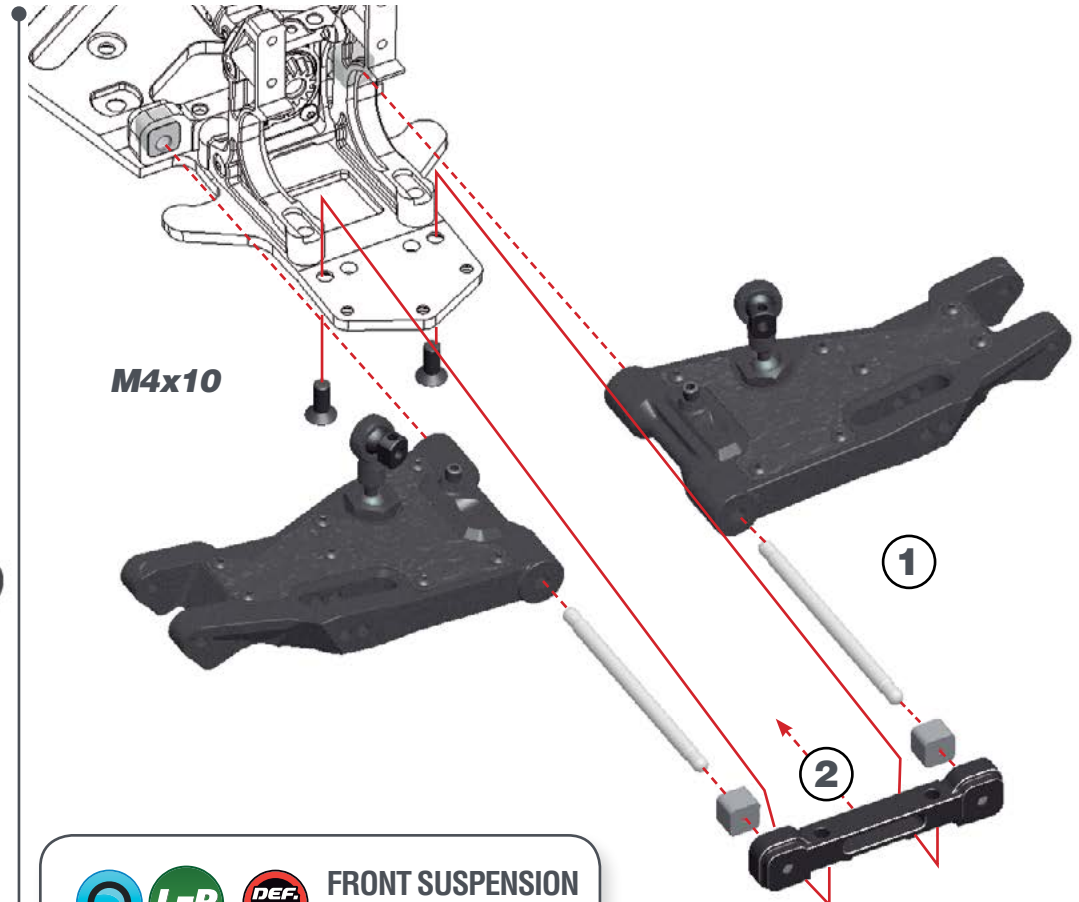
Tighten anti-roll bar cap until there is no play, and it moves freely.



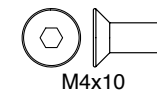
25.2



STEP 26

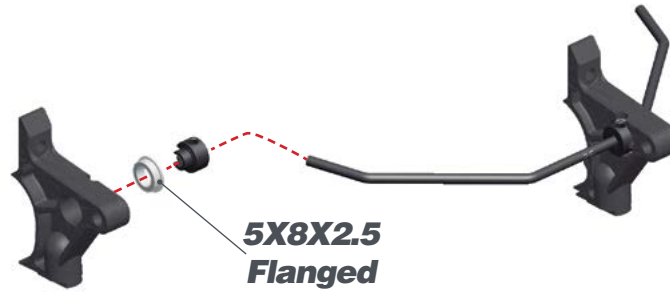


L=R **DEF. SETUP** **FRONT SUSPENSION KICKUP INSERTS**

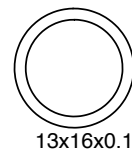
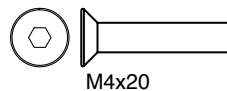
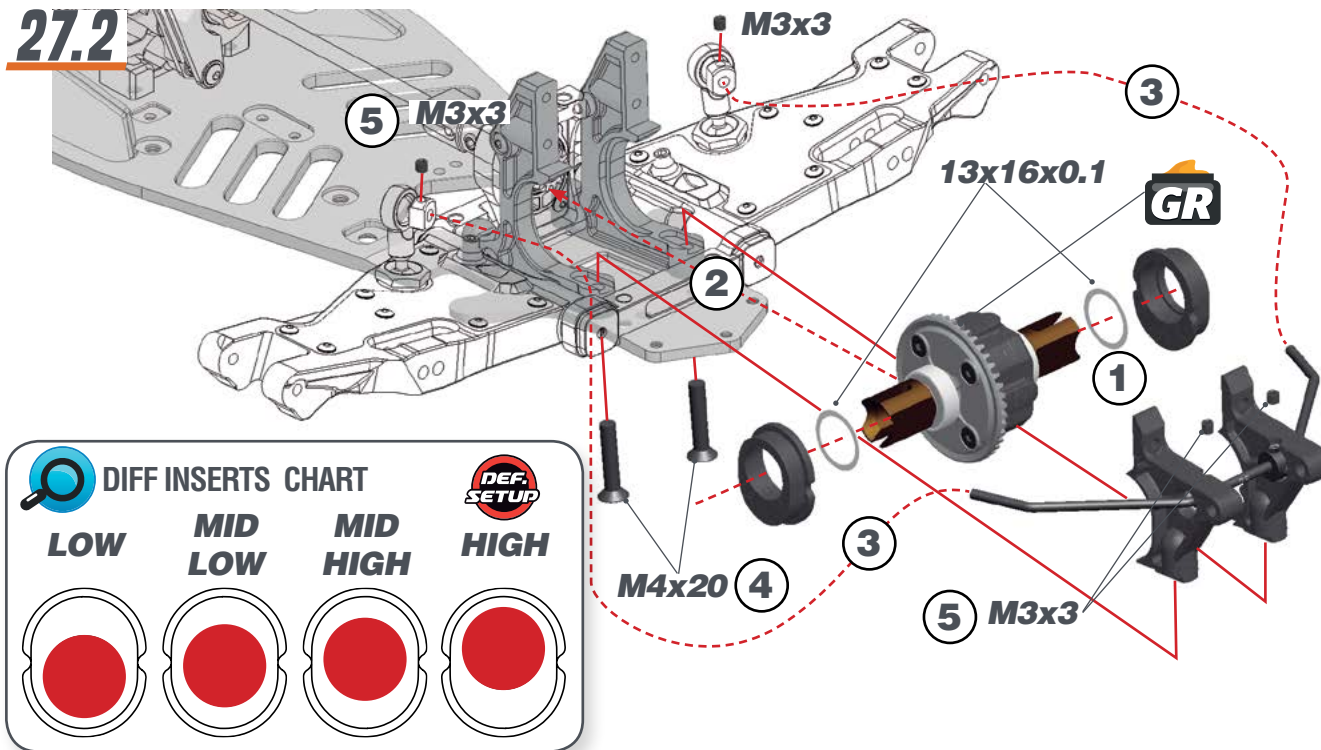


STEP 27

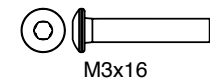
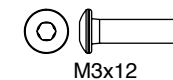
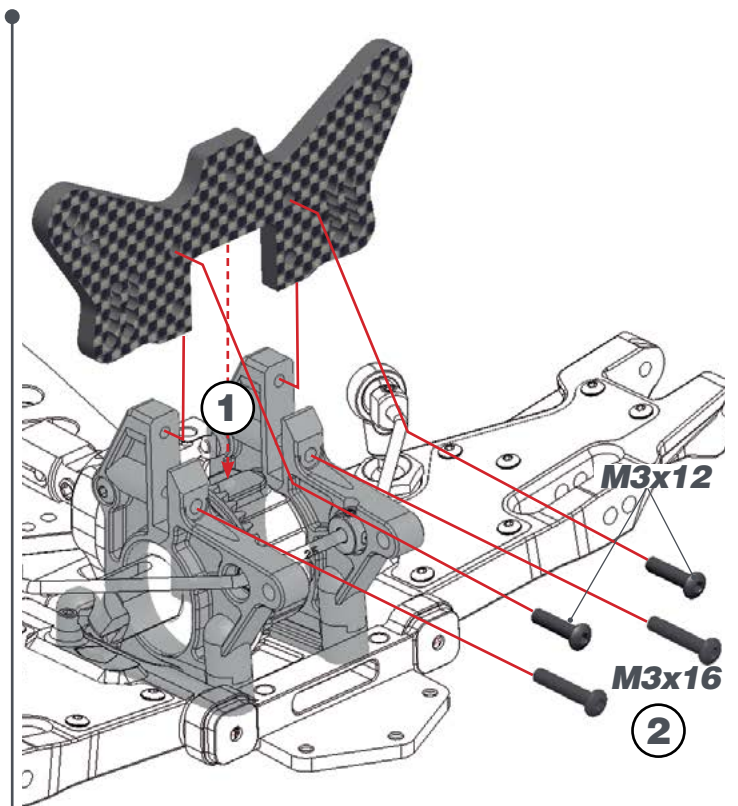
27.1



27.2



STEP 28

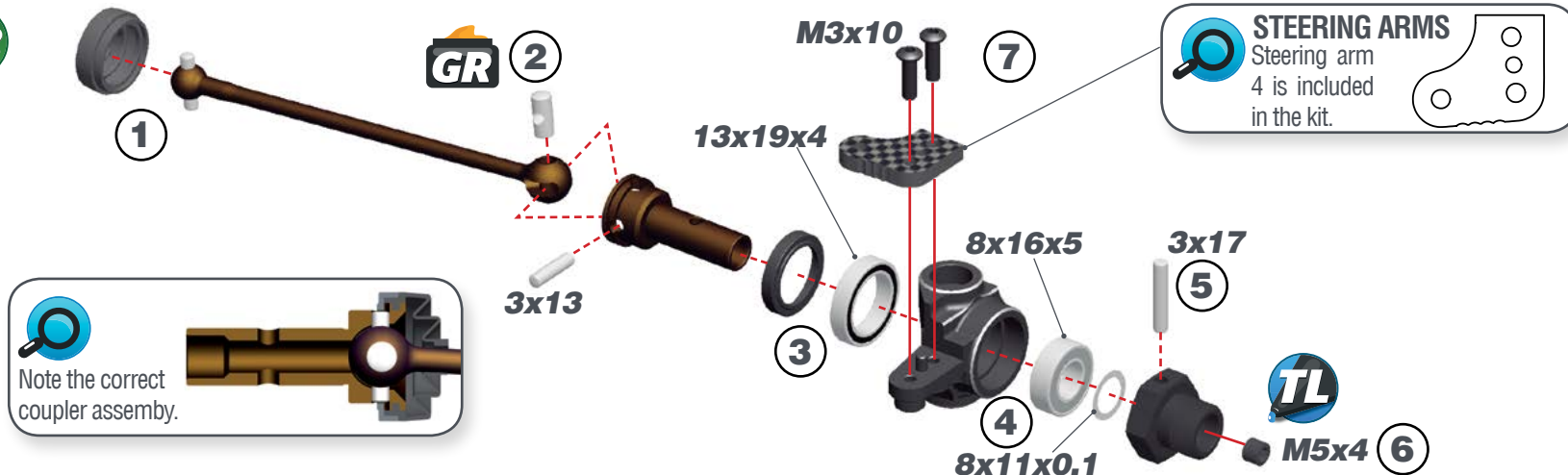


STEP 29

BAG 9

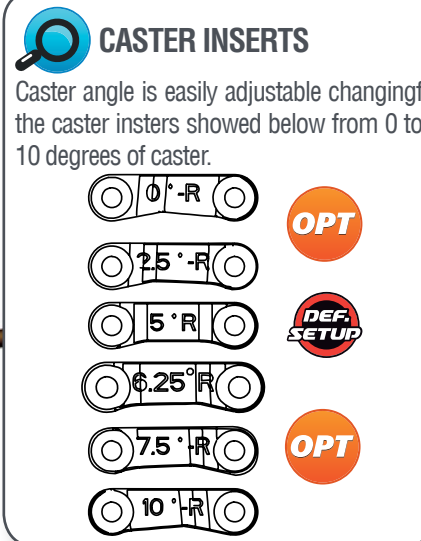
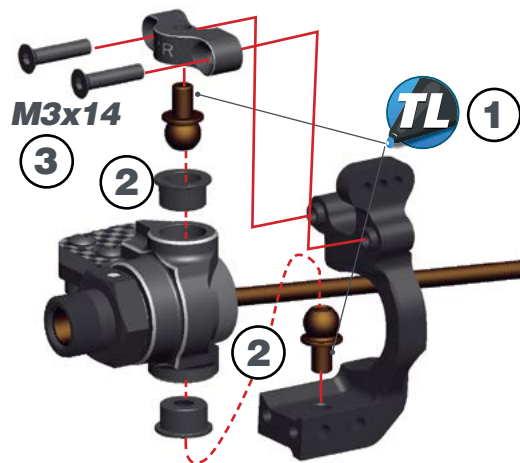
29.1

L=R

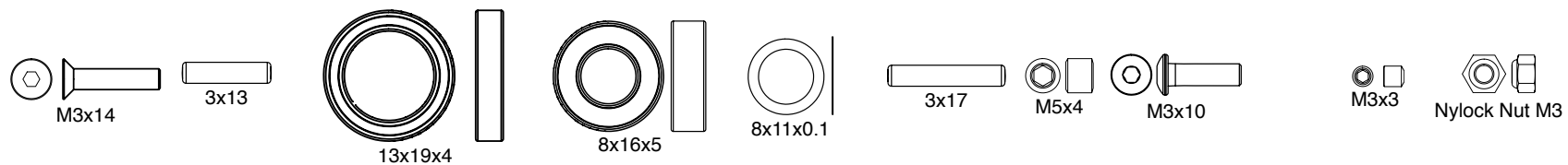
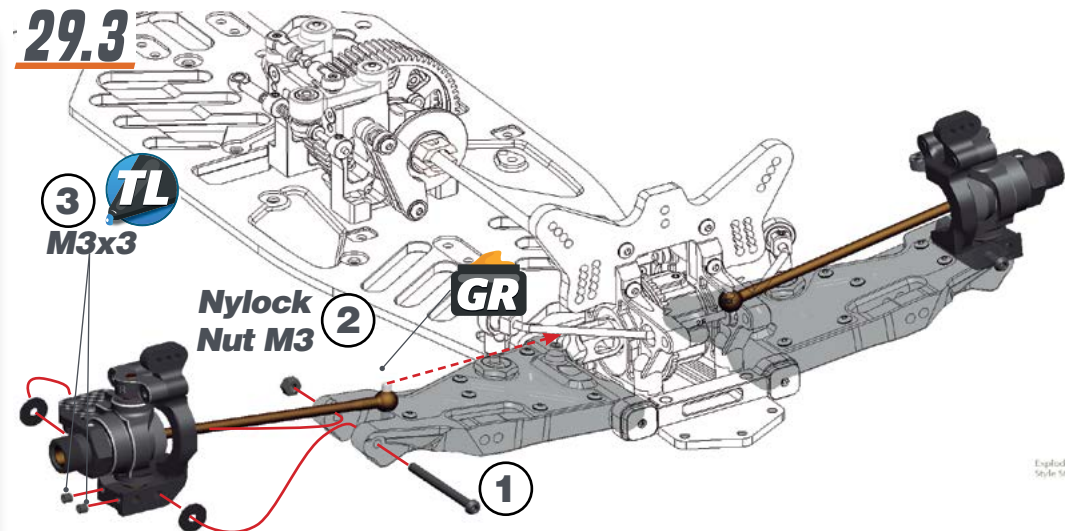


29.2

L=R

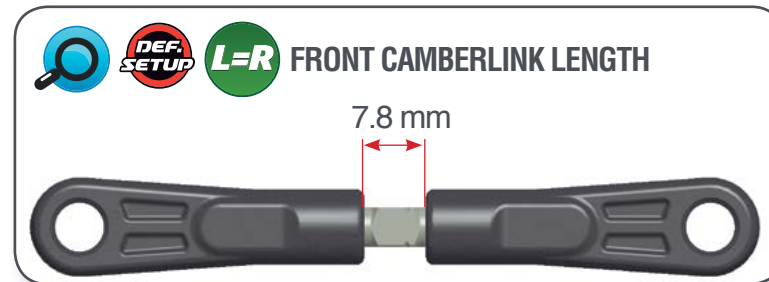


29.3

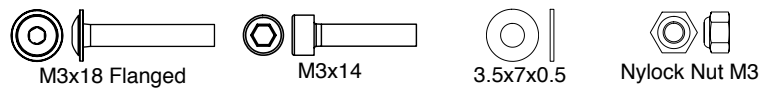
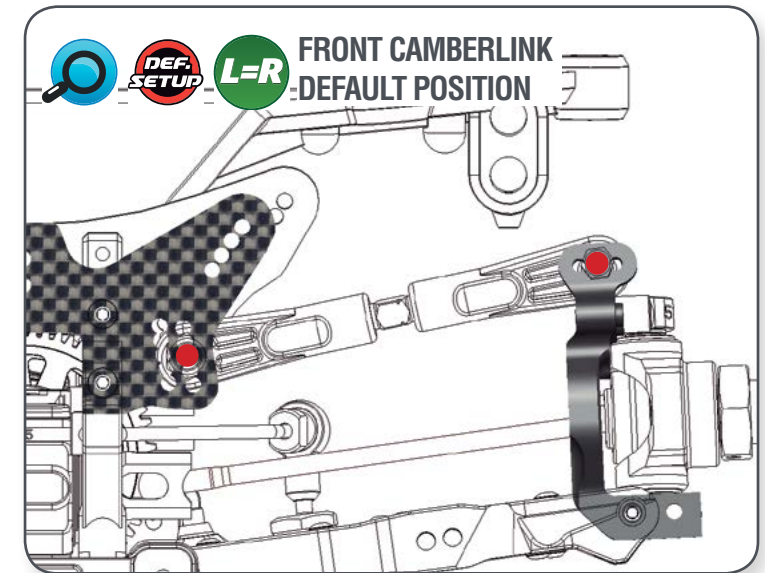
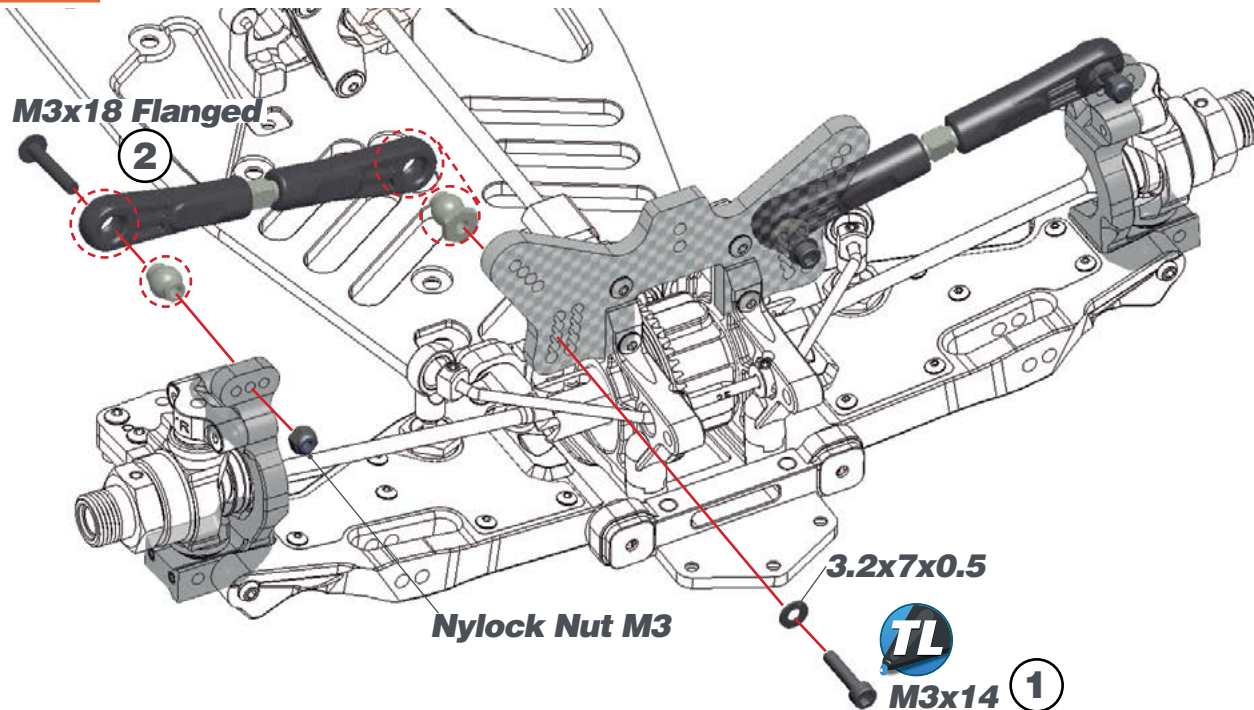


STEP 30

30.1



30.2



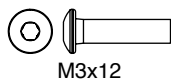
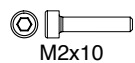
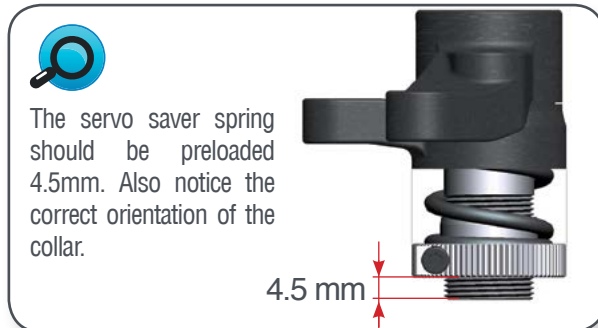
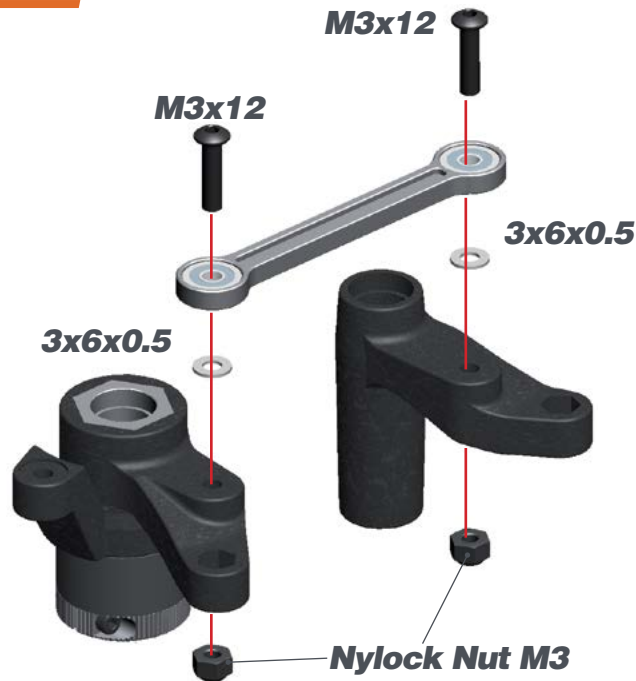
STEP 31

BAG 10

31.1



31.2

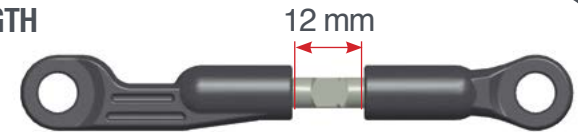


STEP 32

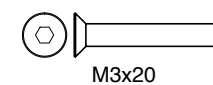
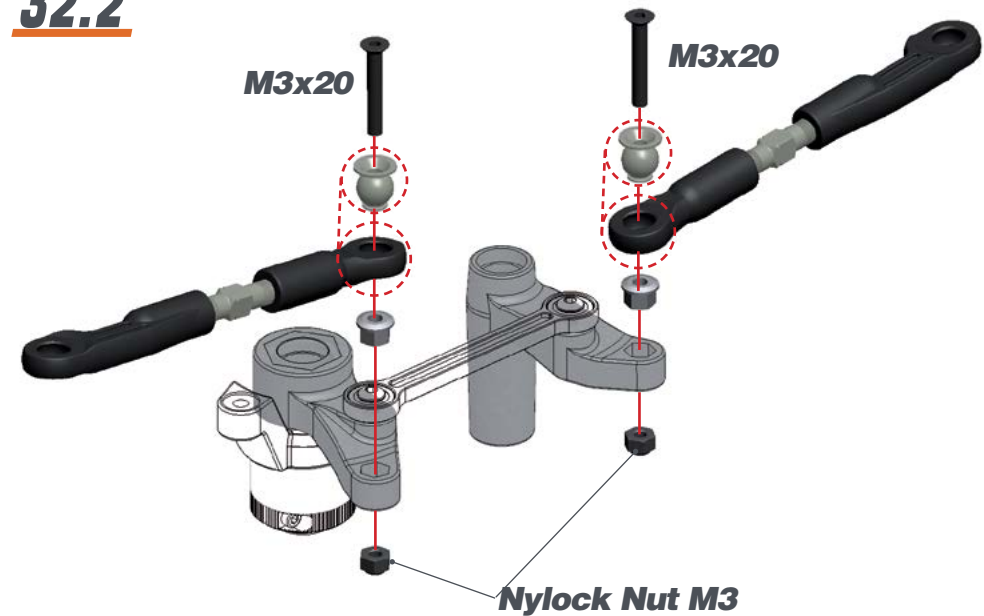
32.1



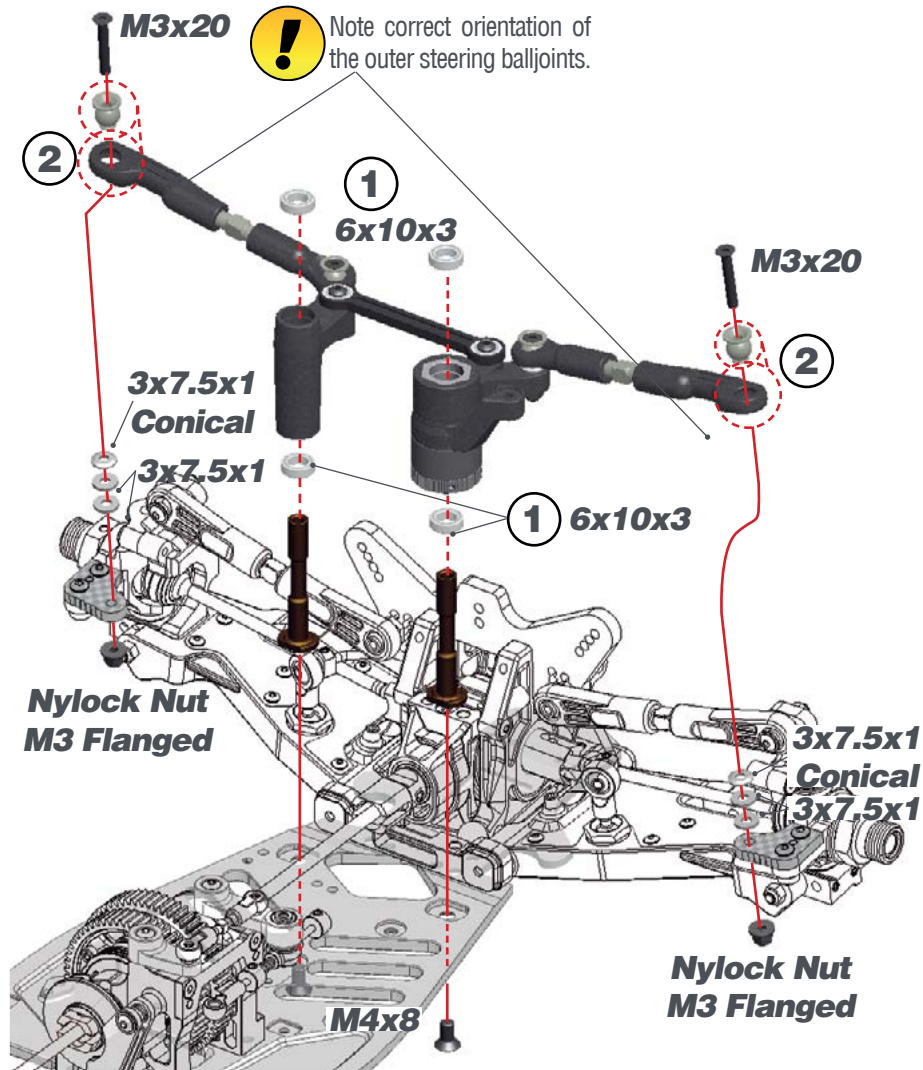
STEERING TRACKROD LENGTH



32.2

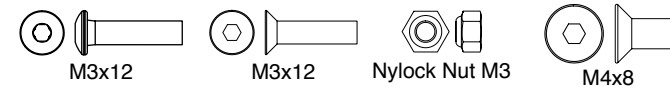
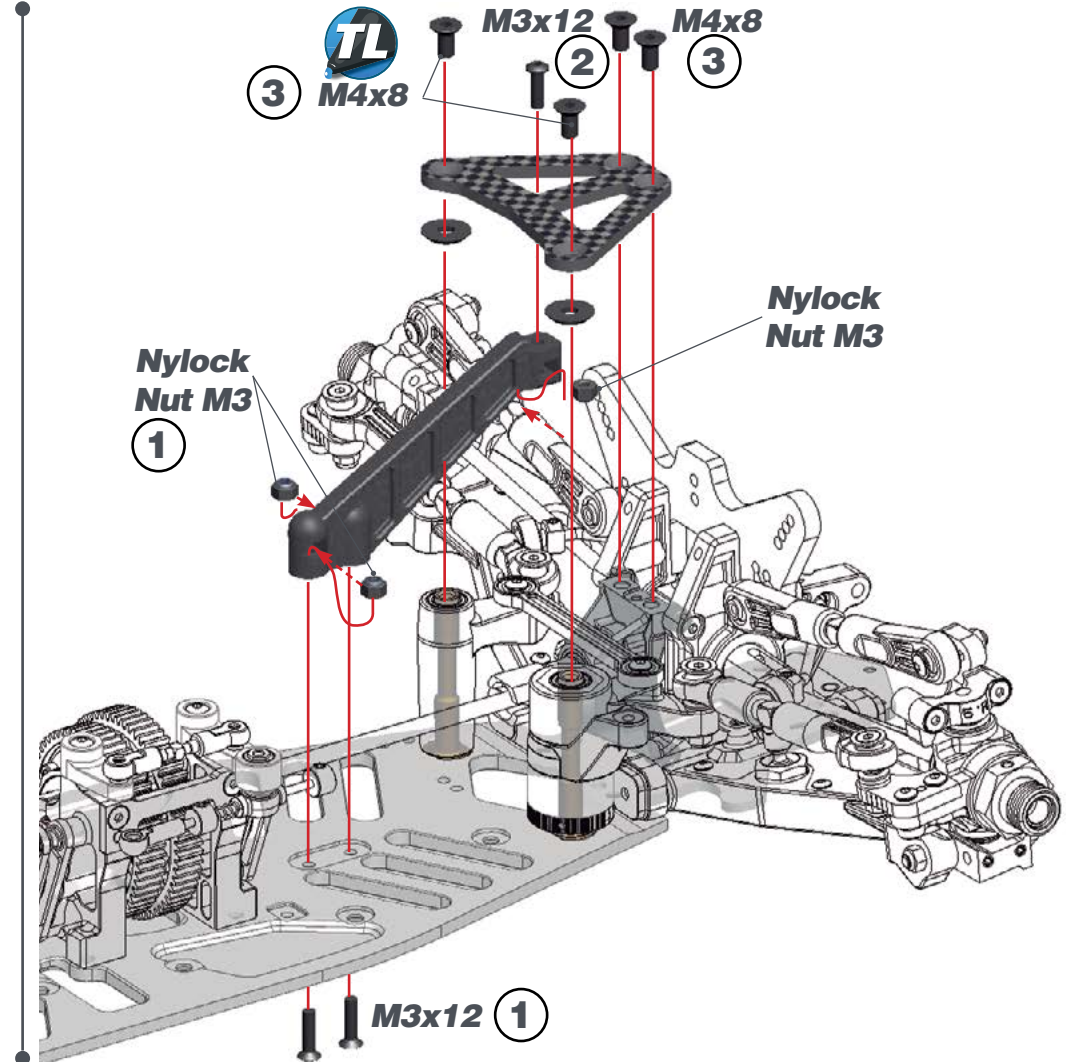


STEP 33

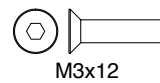
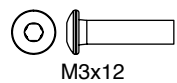
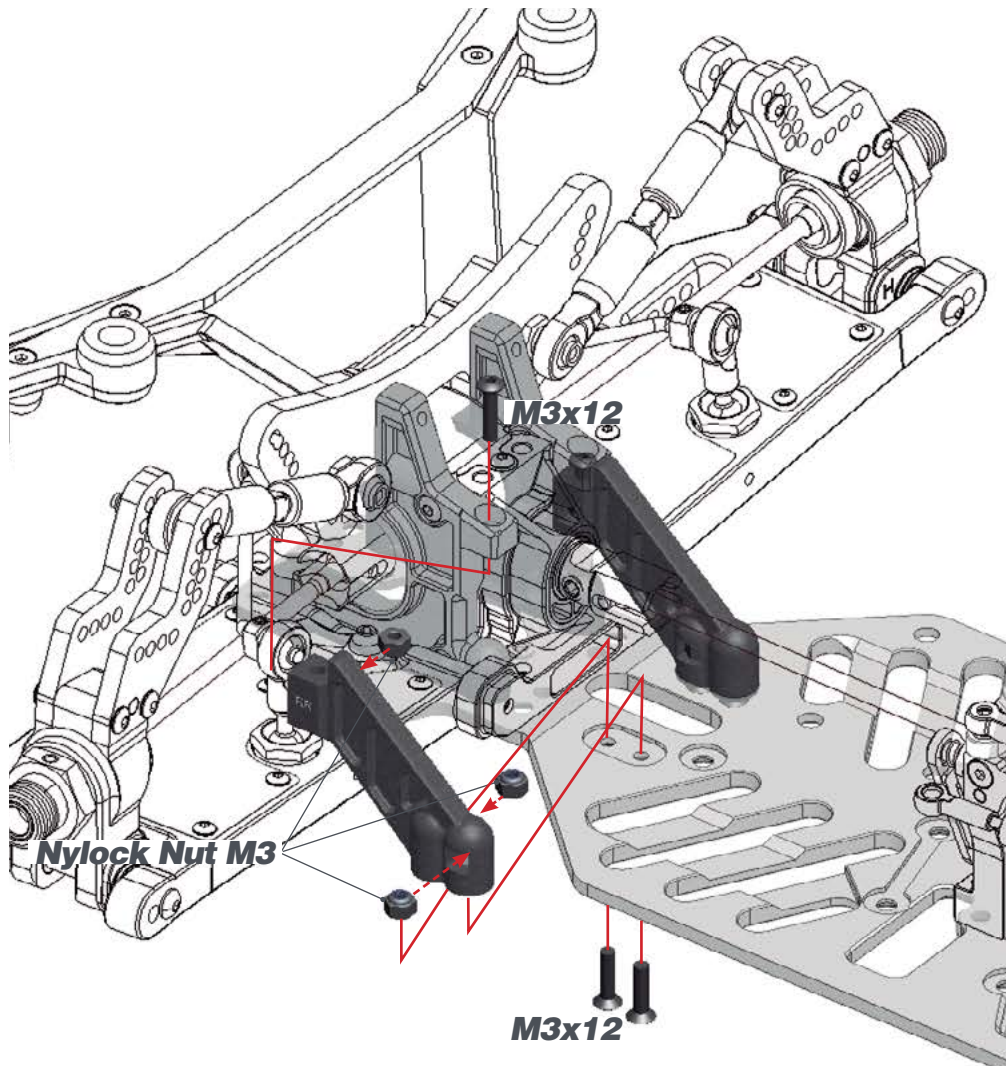


STEP 34

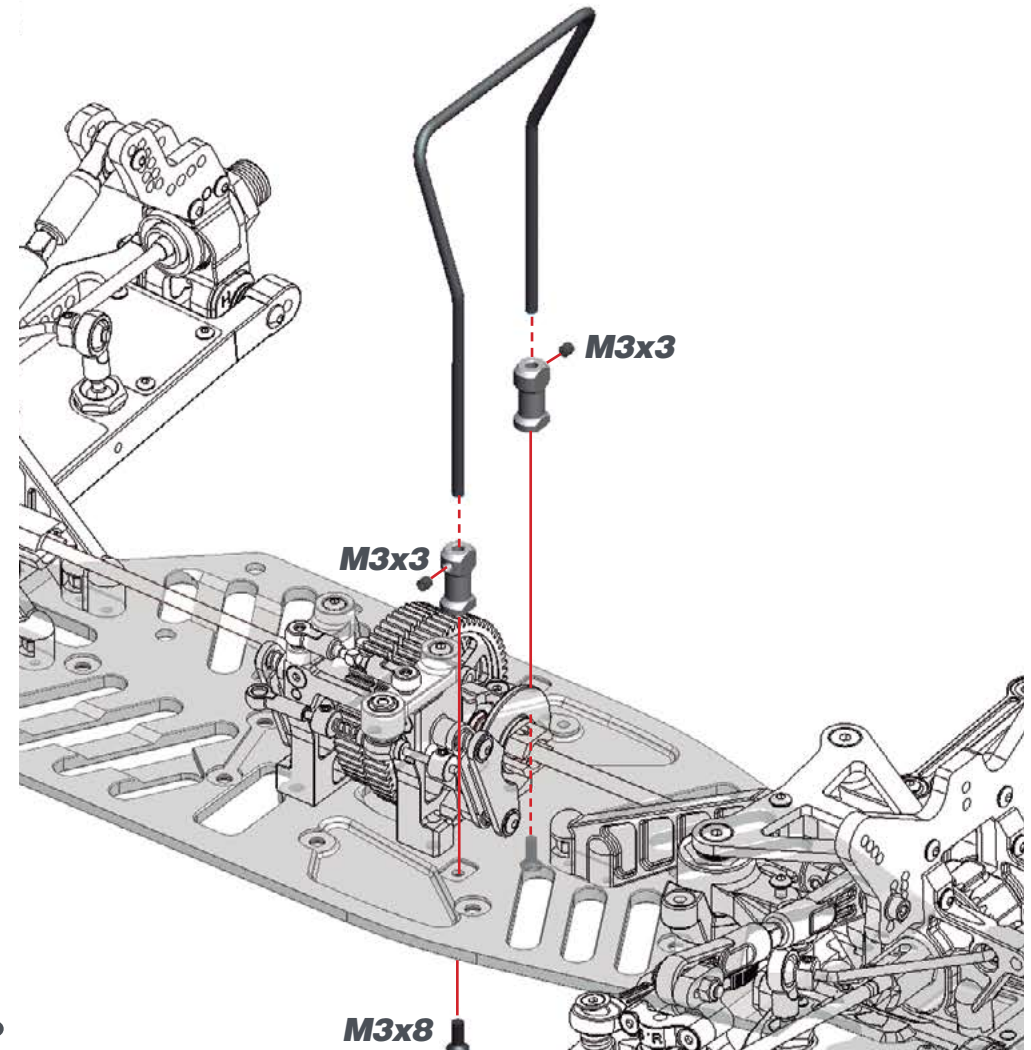
BAG 11



STEP 35

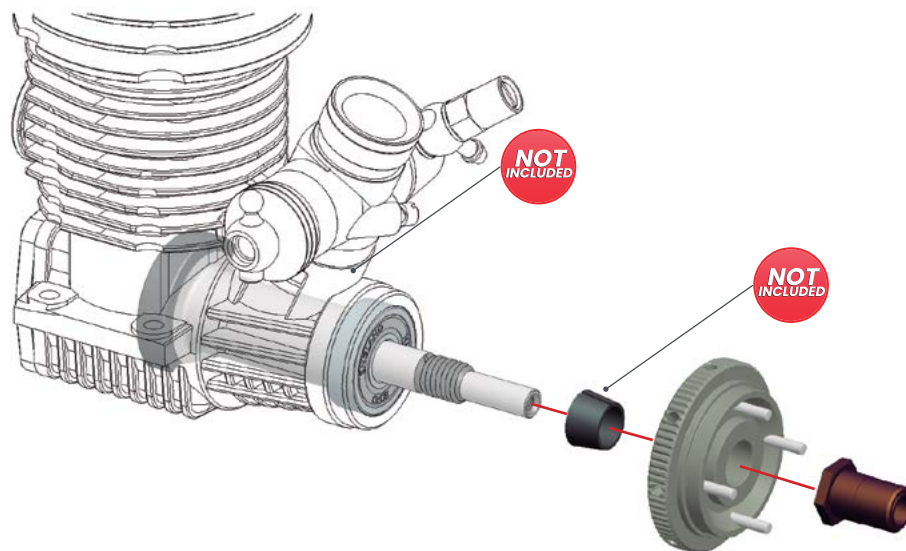


STEP 36



STEP 37

BAG 12



1- To align the clutchgears with the 2-speed gears, it may be needed to use shim(s) 6x8x0.5mm (for 6mm shaft) or 7x8x0.5 (for 7mm shaft) behind the cone. This you can see only after assembling the clutch.

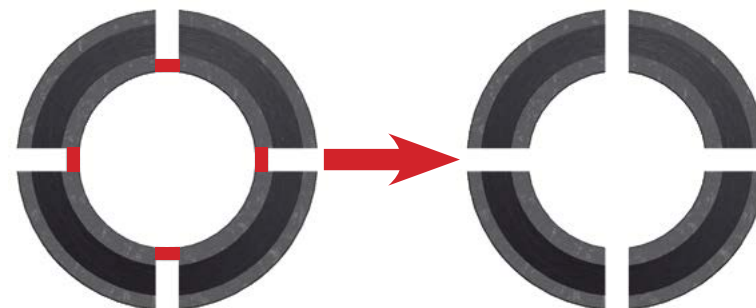
2- The holes in the side of the flywheel can be used to block the flywheel (with short allen tool) through the bottom of the chassis, when the engine/clutch is mounted in the car. It's easier to tighten or loosen the pre-load on the clutch spring that way.

STEP 38

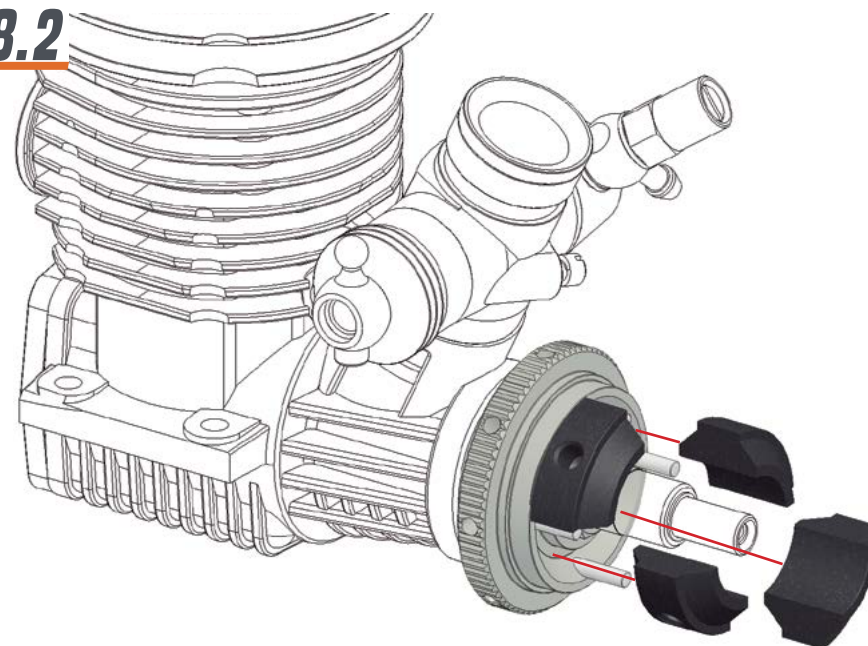
38.1



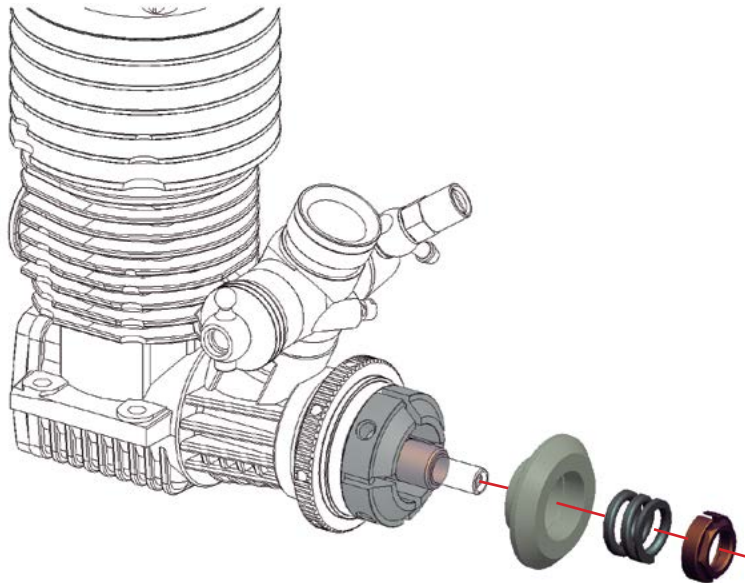
Before to assemble clutch shoes, carefully remove the red area and smoothen the cut surface in order to have four clutch shoes with the same shape.



38.2



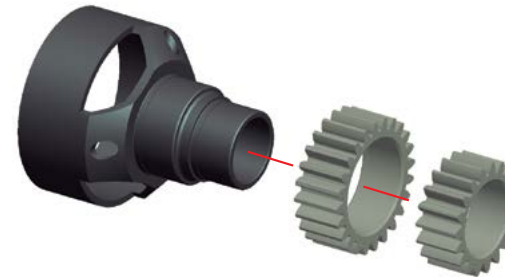
STEP 39



For adjusting the default clutch spring tension:
 1- Screw in the adjusting nut all the way.
 2- Unscrew it one and a half turns.
 3- Fine tune the setup of your clutch on the track according to your driving style, track and weather conditions.

STEP 40

40.1



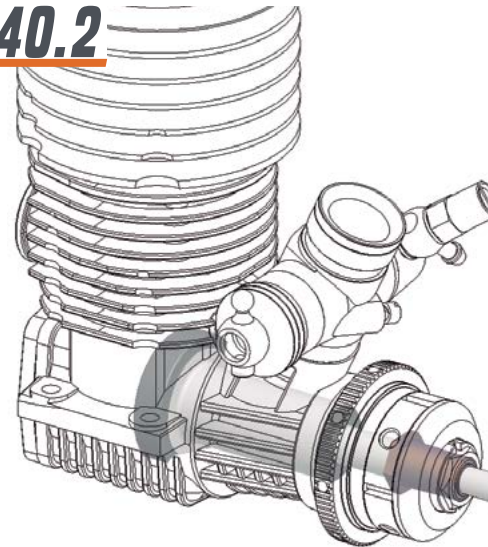
Note the orientation of the gears



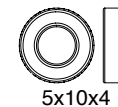
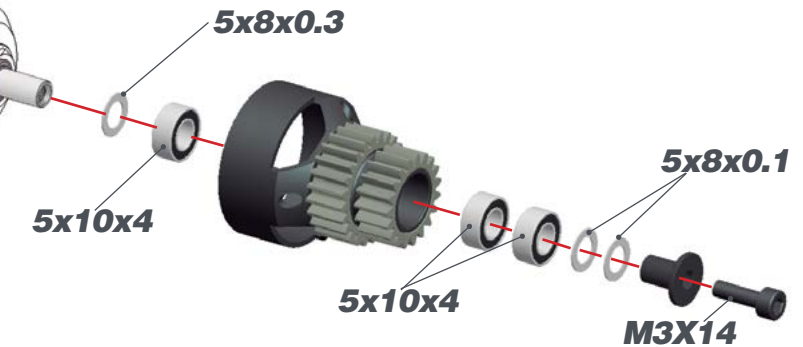
2ND

1ST

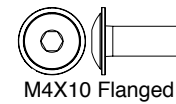
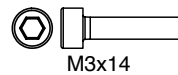
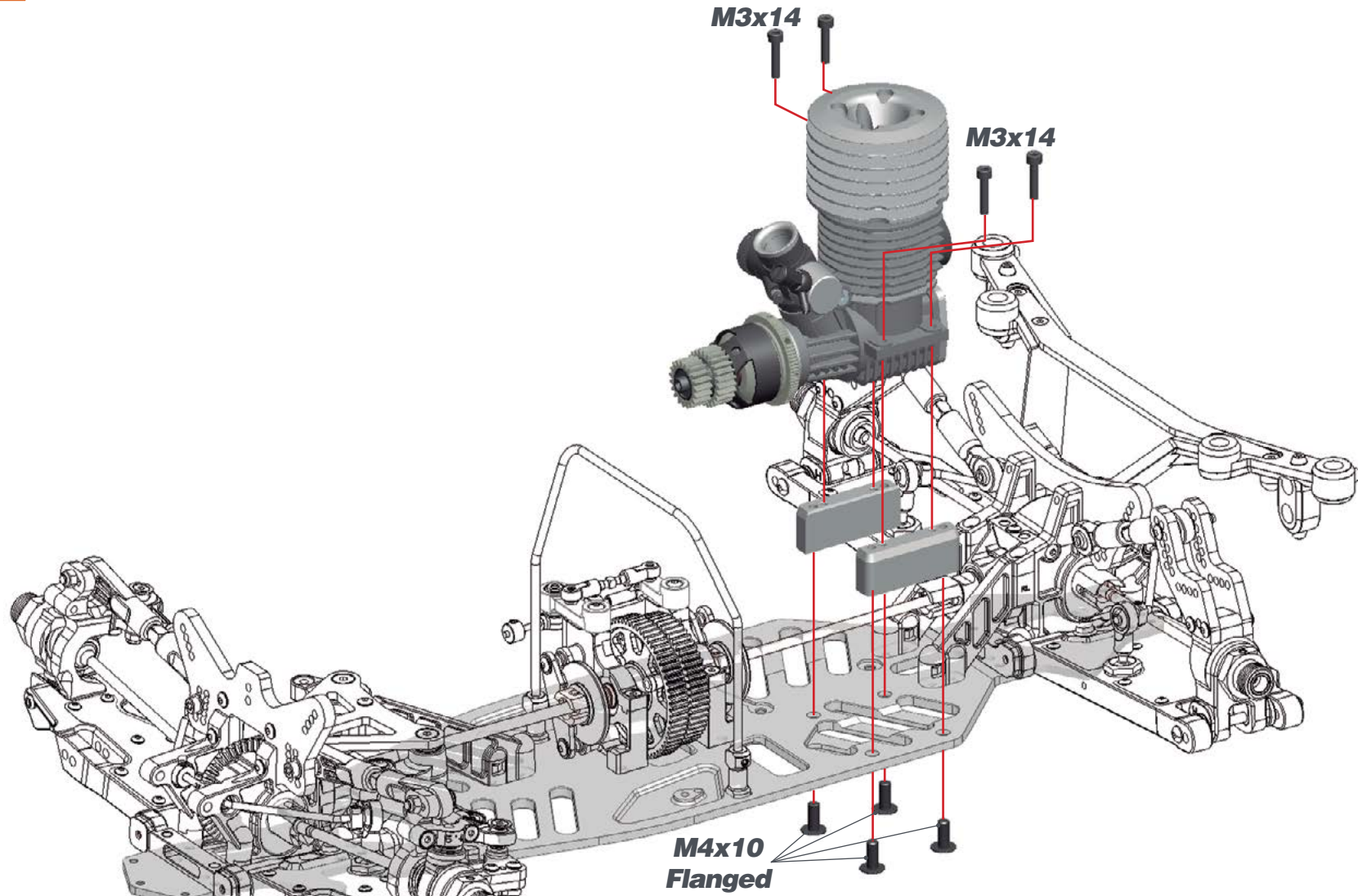
40.2



Place 5x8x0.1 and/or 5x8x0.3 shims to achieve a small amount of end play.



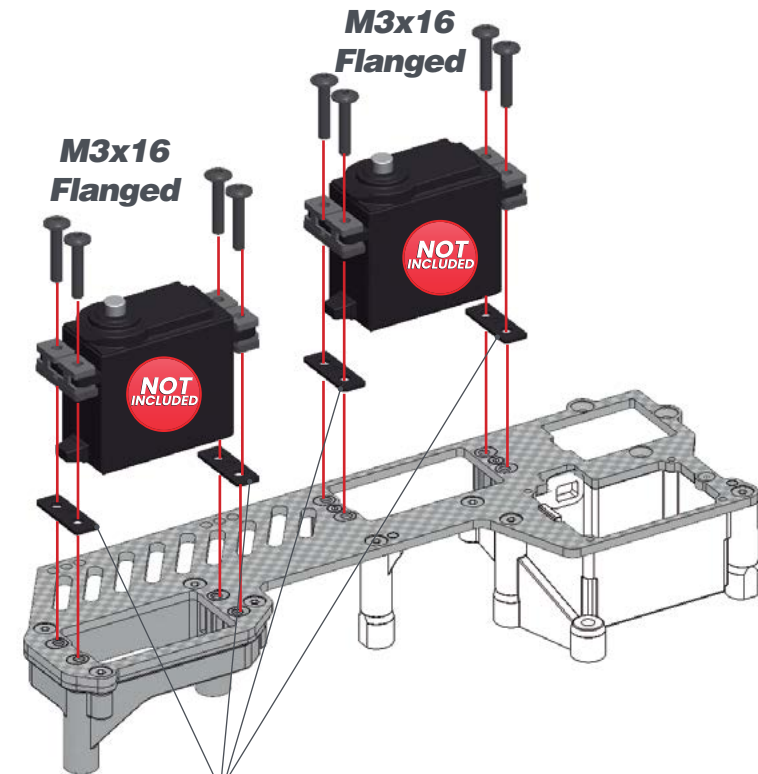
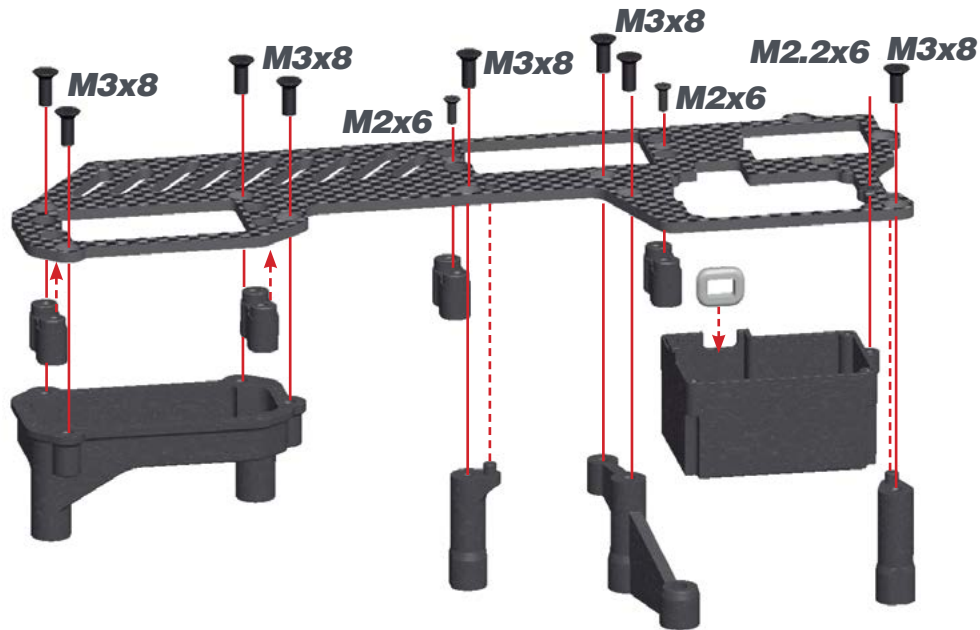
STEP 41



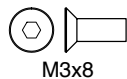
STEP 42

BAG 13

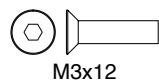
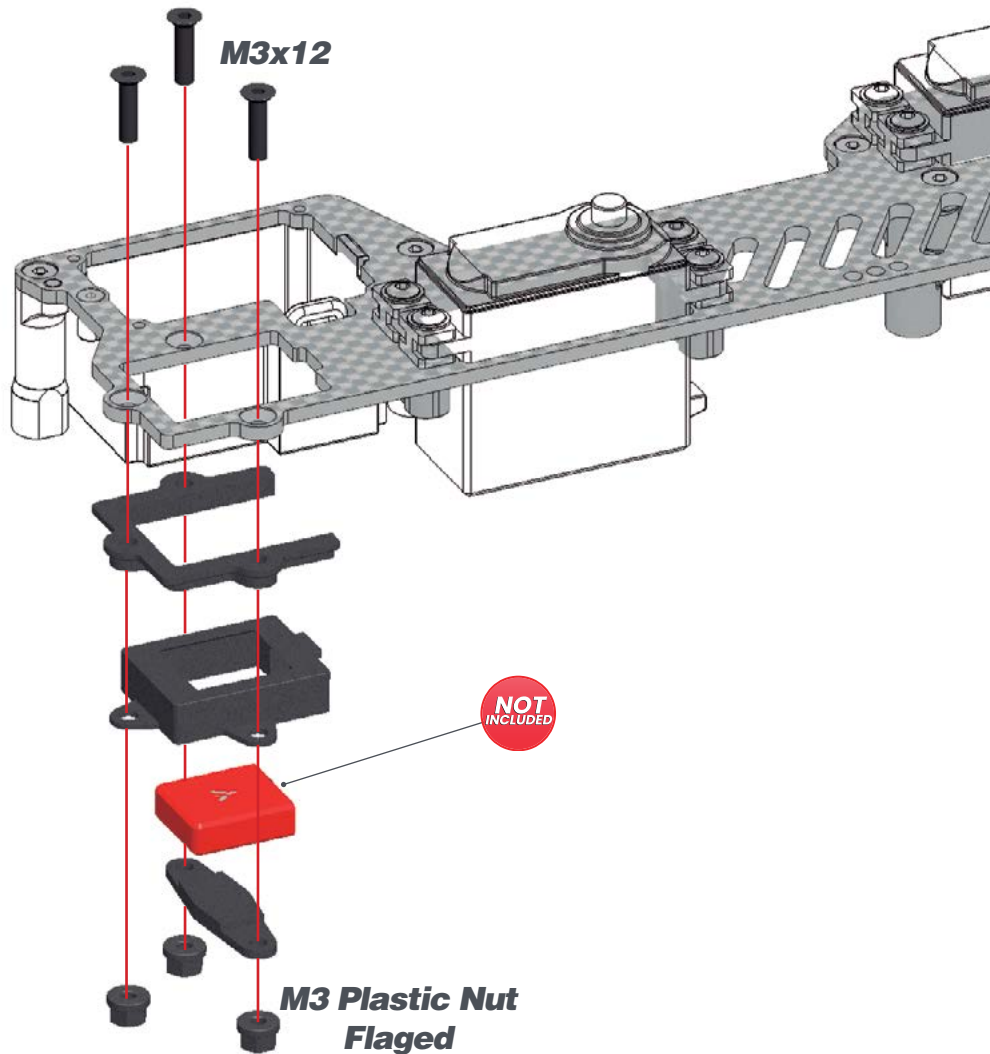
STEP 43



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.

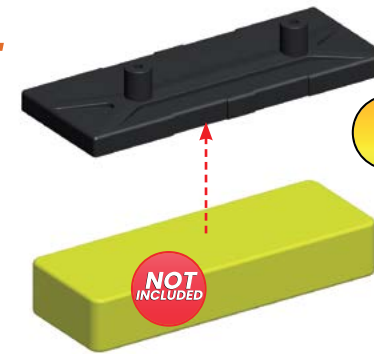


STEP 44



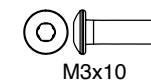
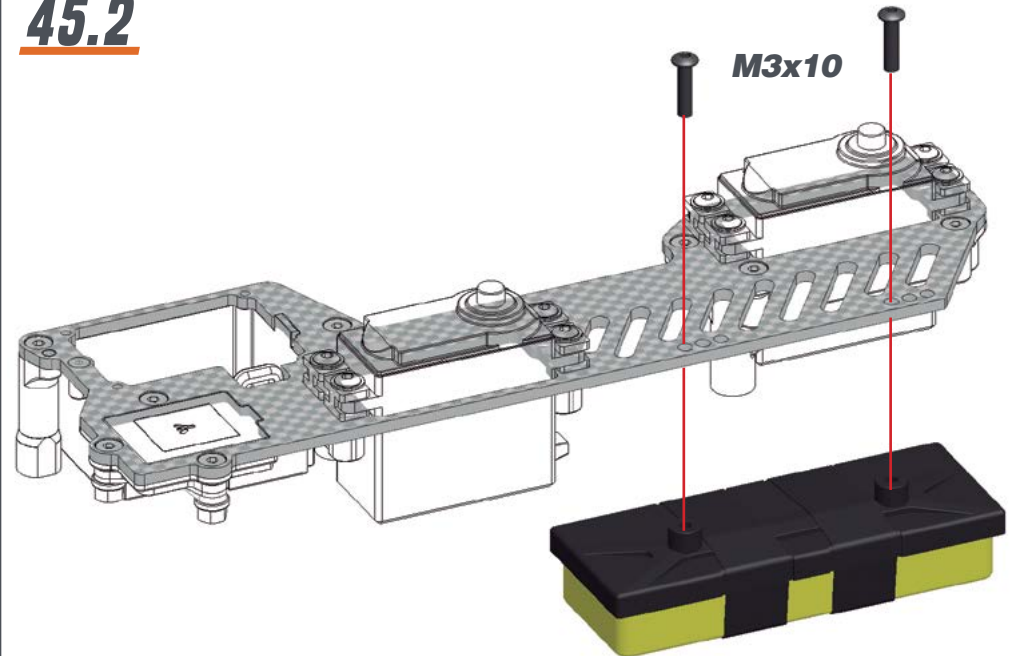
STEP 45

45.1



! Use tape to mount the battery to the plastic support.

45.2

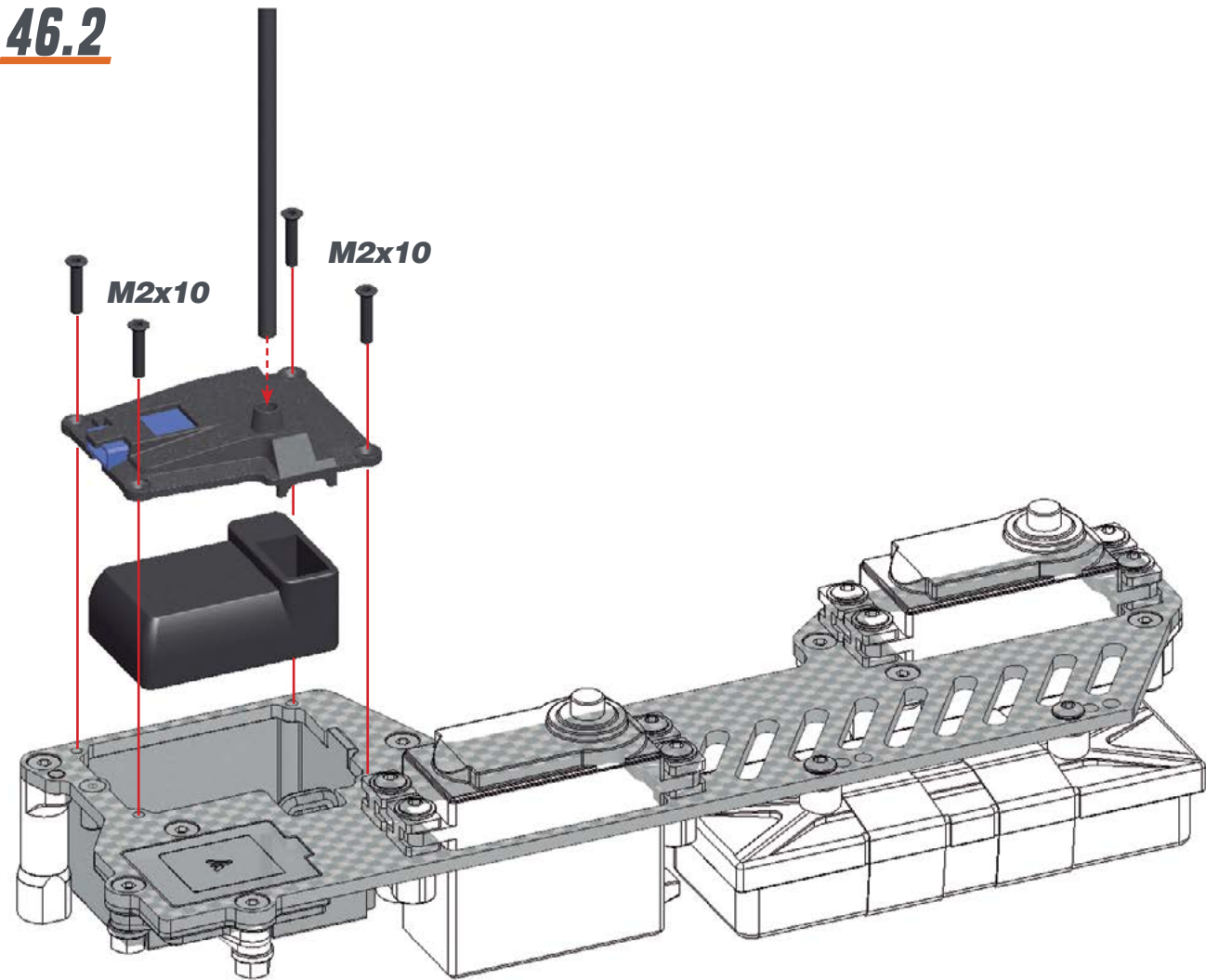


STEP 46

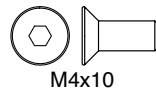
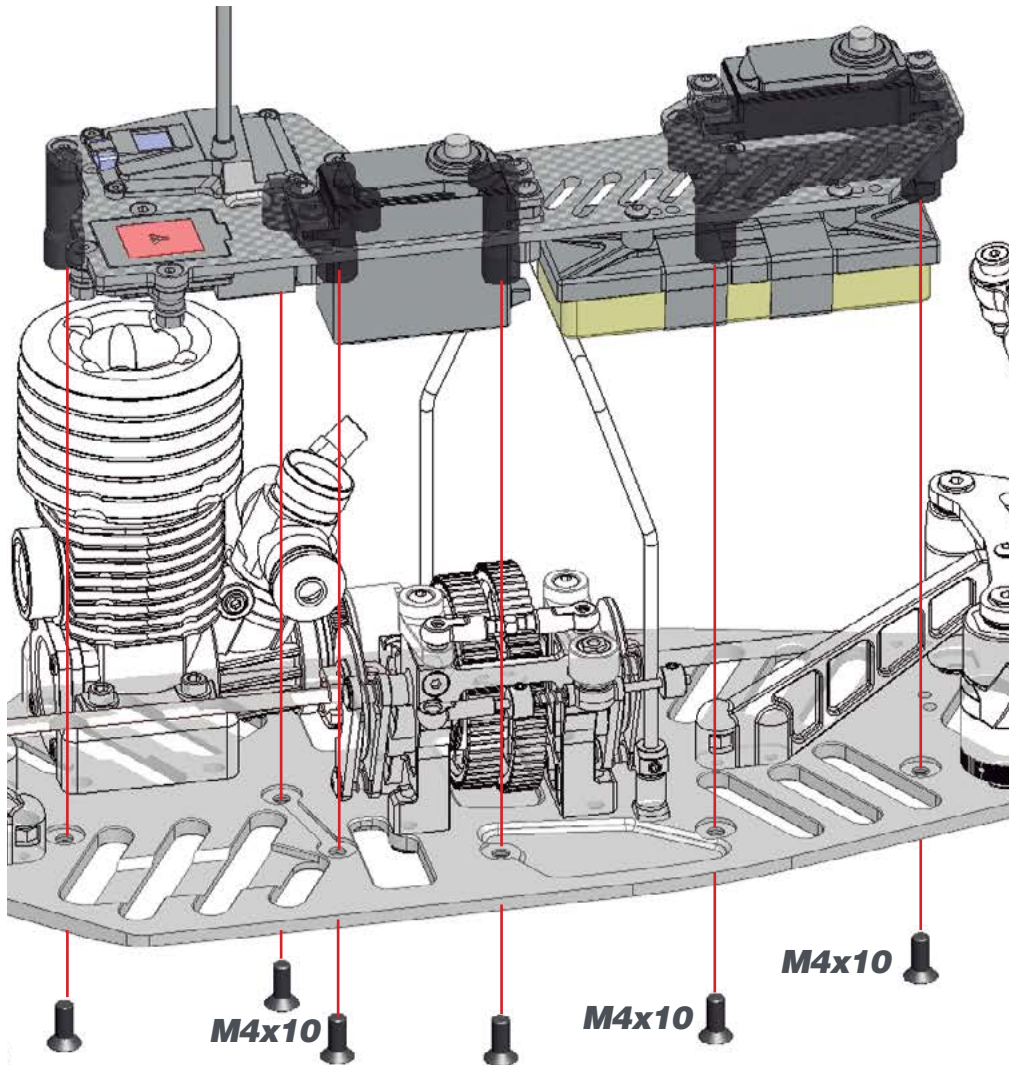
46.1



46.2



STEP 47



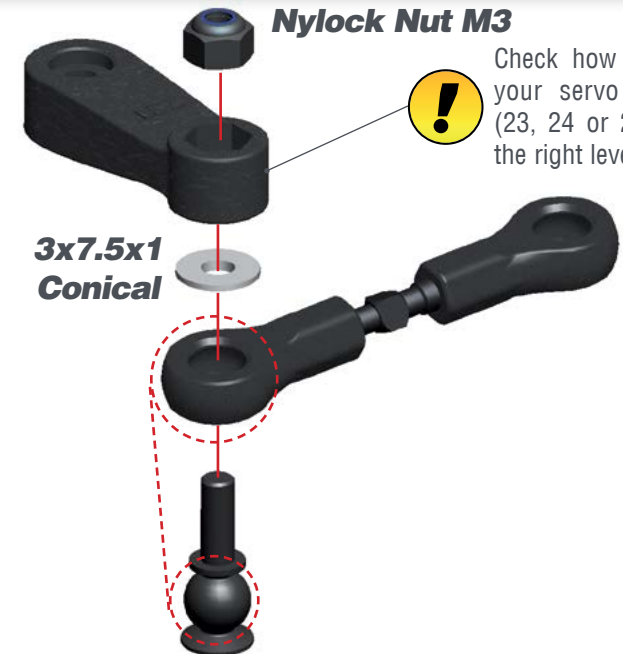
STEP 48



STEERING LINK LENGTH

Between different servo brands there could be slight differences.

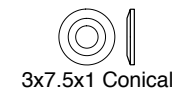
8 mm



Nylock Nut M3

Check how many teeth your servo spline has (23, 24 or 25) and use the right lever.

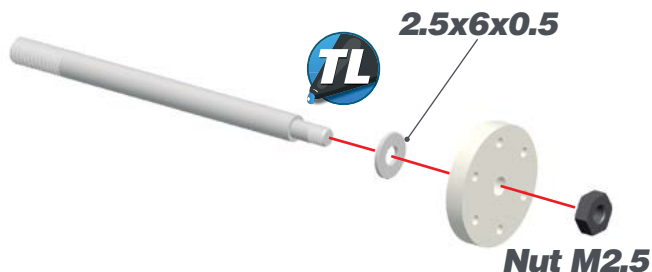
3x7.5x1
Conical



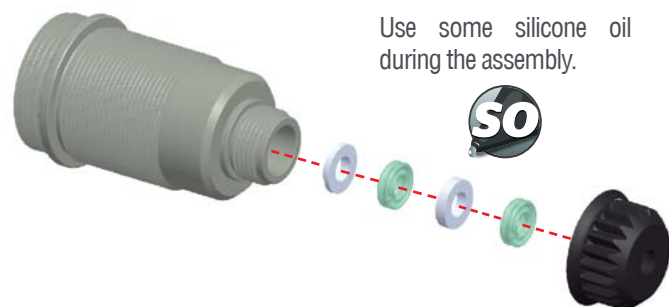
STEP 51

SHOCK BAG

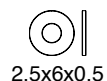
51.1



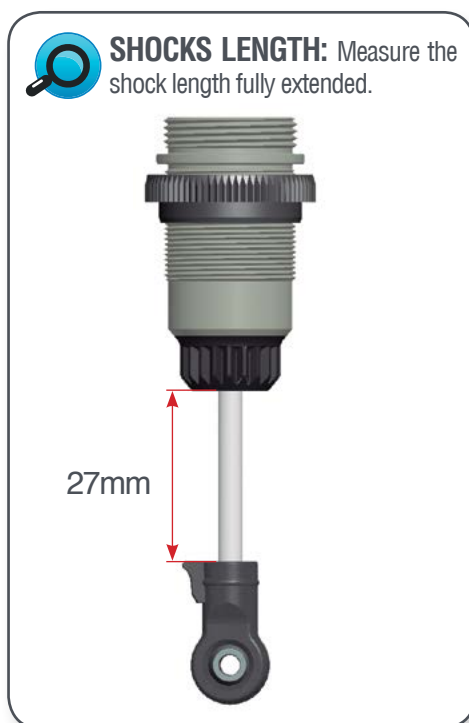
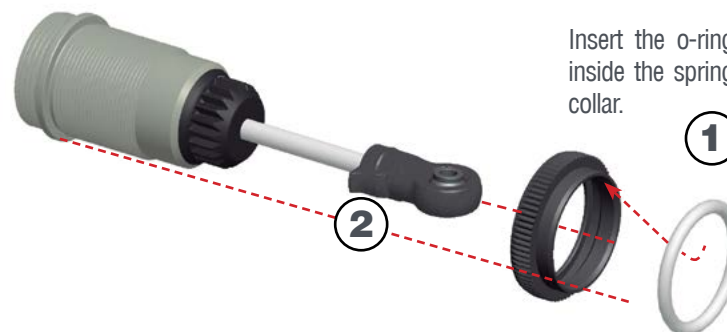
51.2



51.3



STEP 52



STEP 53

- 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 54

54.1

Push the membrane into the shock cap.



54.2

Close top step by step only 3/4



STEP 55

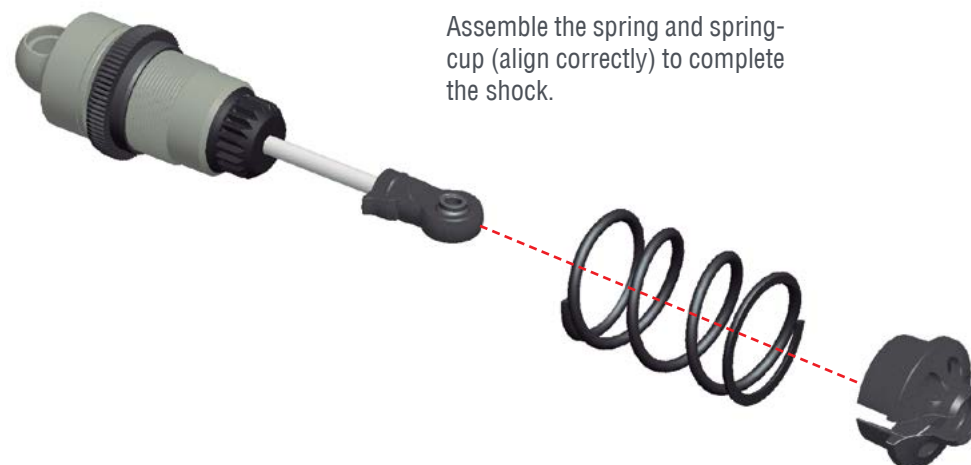
1-Bleed: push the shock-rod all the way in slowly, to allow excessive oil to escape.

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



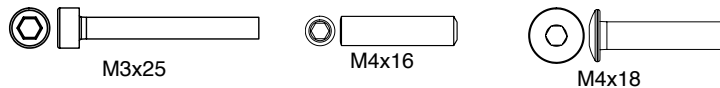
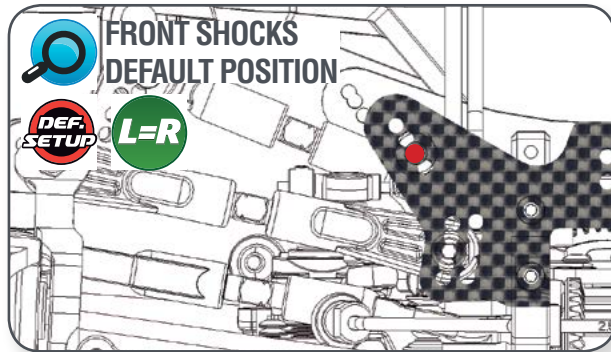
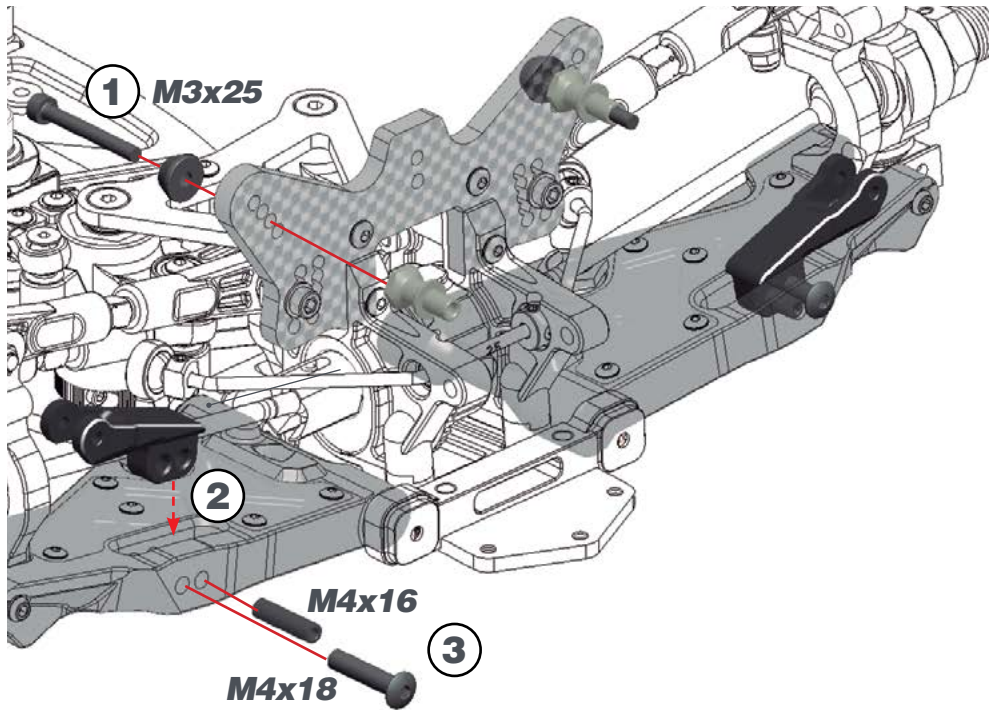
STEP 56

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

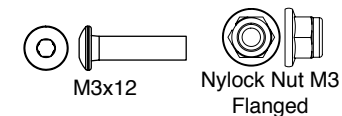
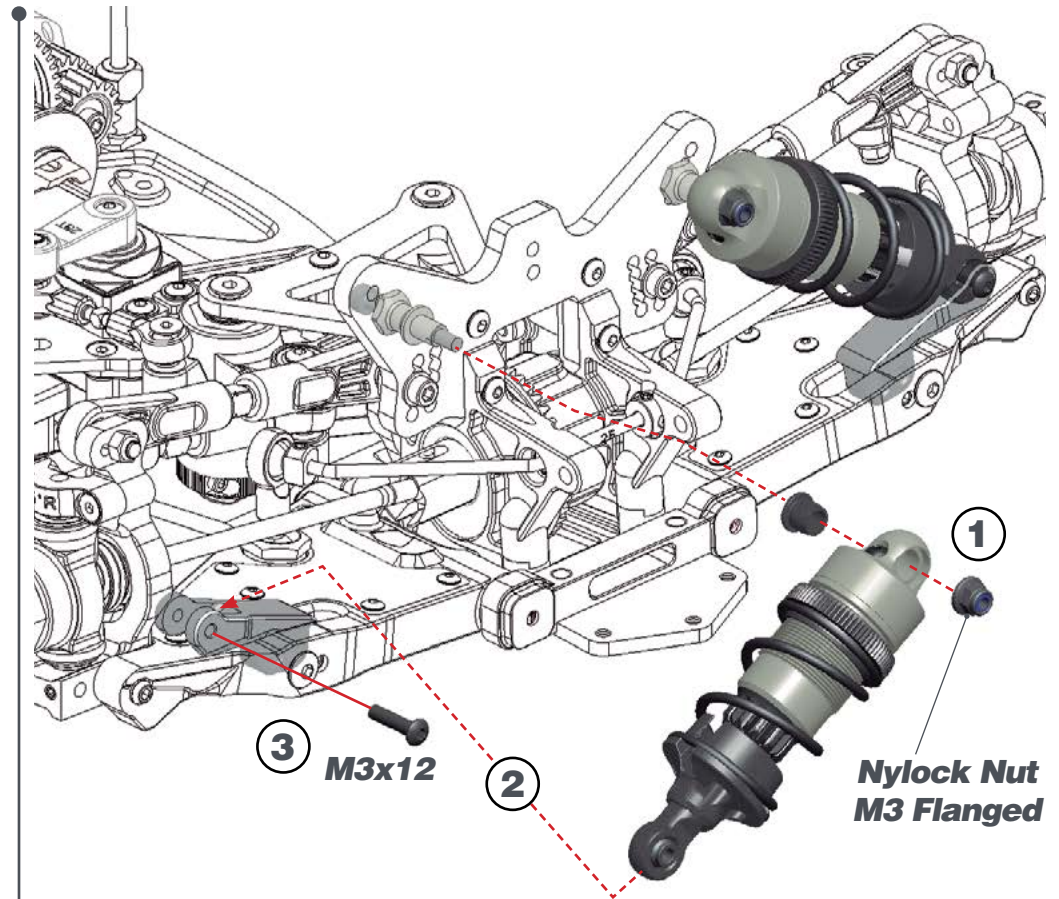


M2.3x4

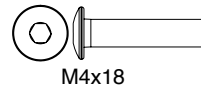
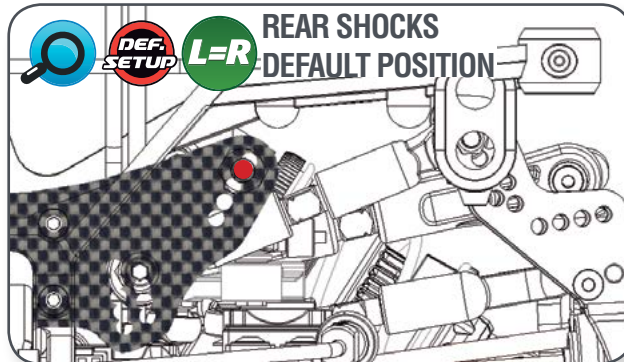
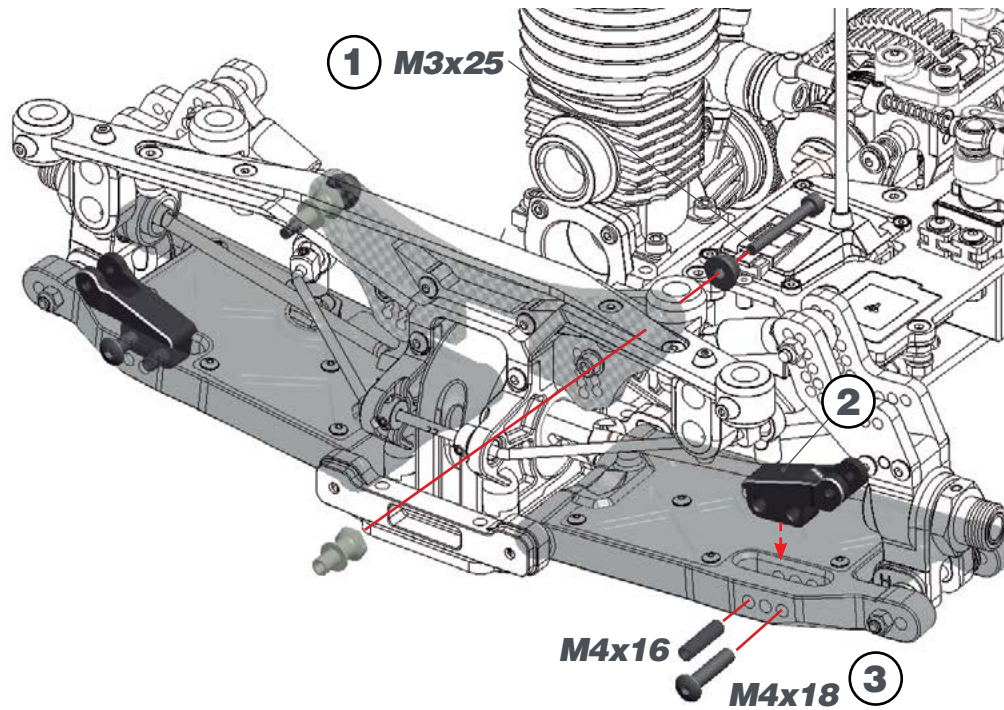
STEP 57



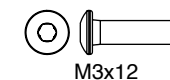
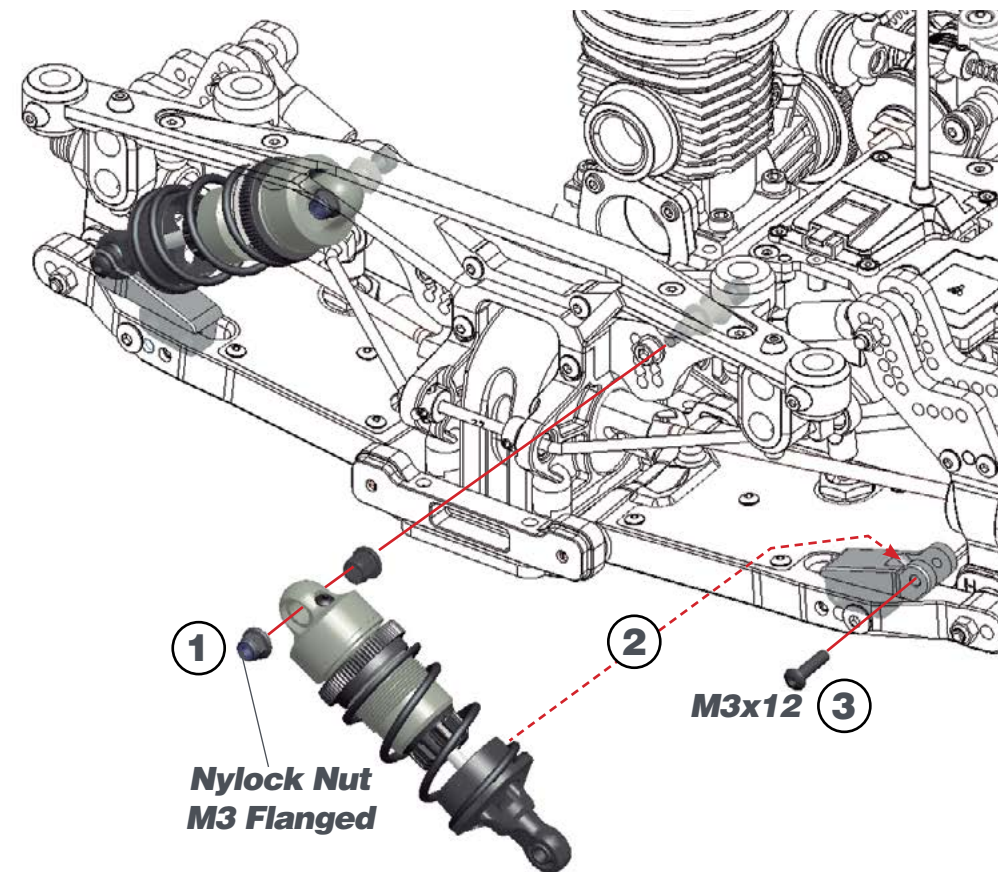
STEP 58



STEP 59



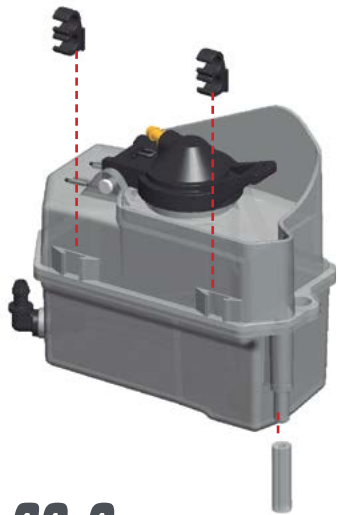
STEP 60



STEP 61

BAG 14

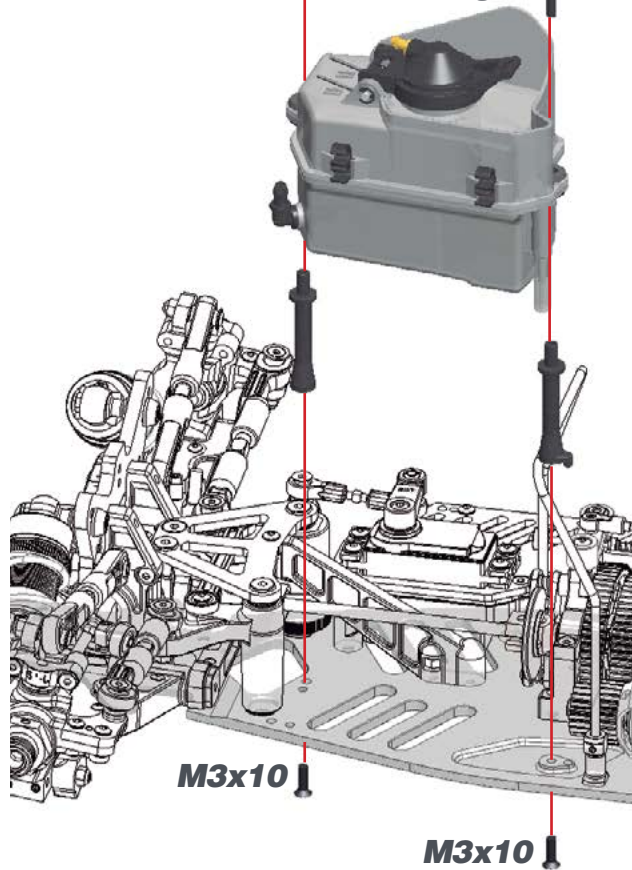
61.1



61.3

M3x12
Flanged

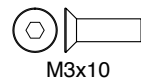
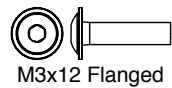
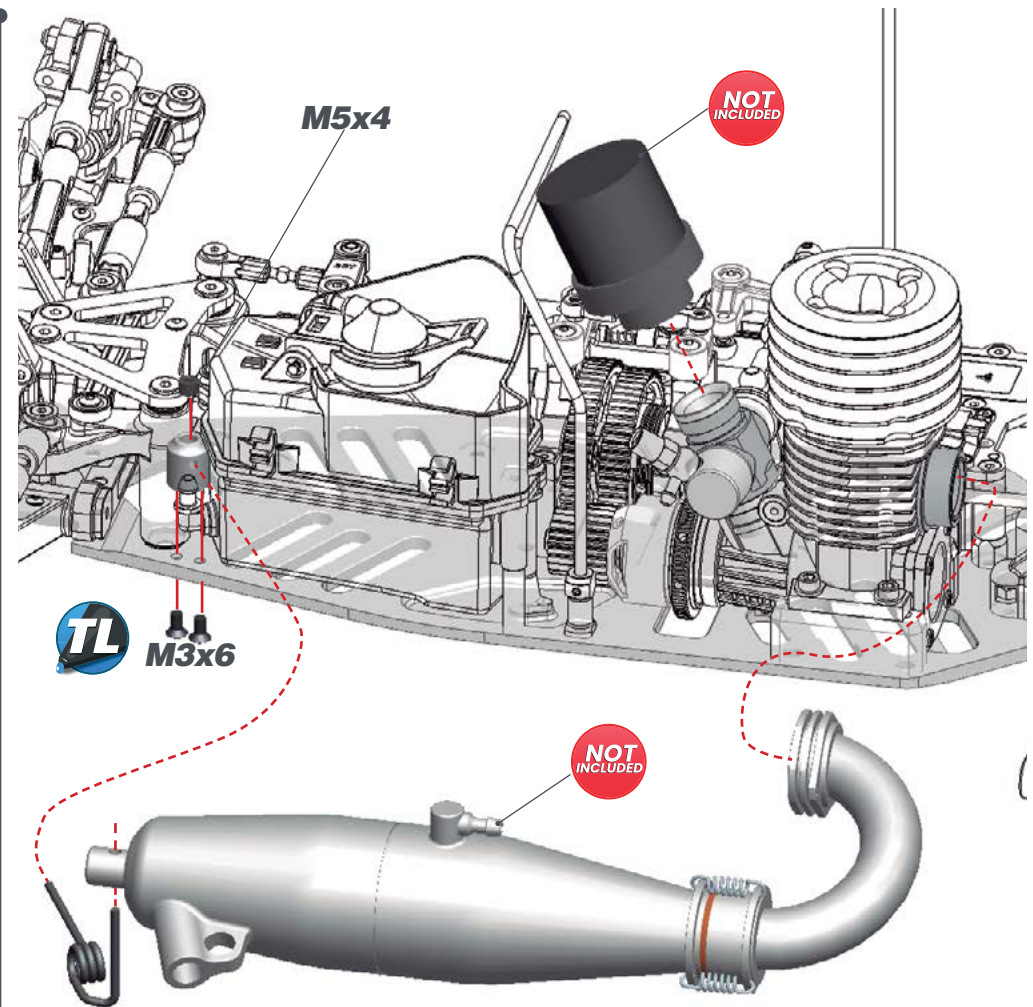
M3x12
Flanged



62.2

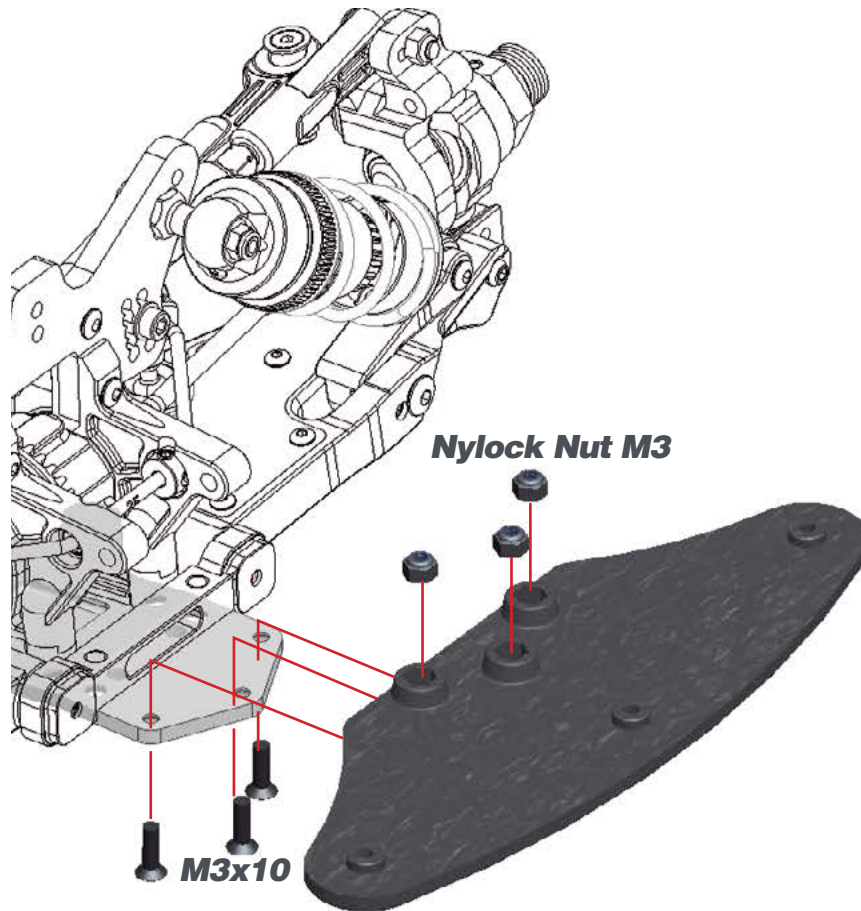


STEP 62

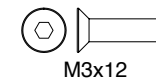
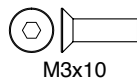
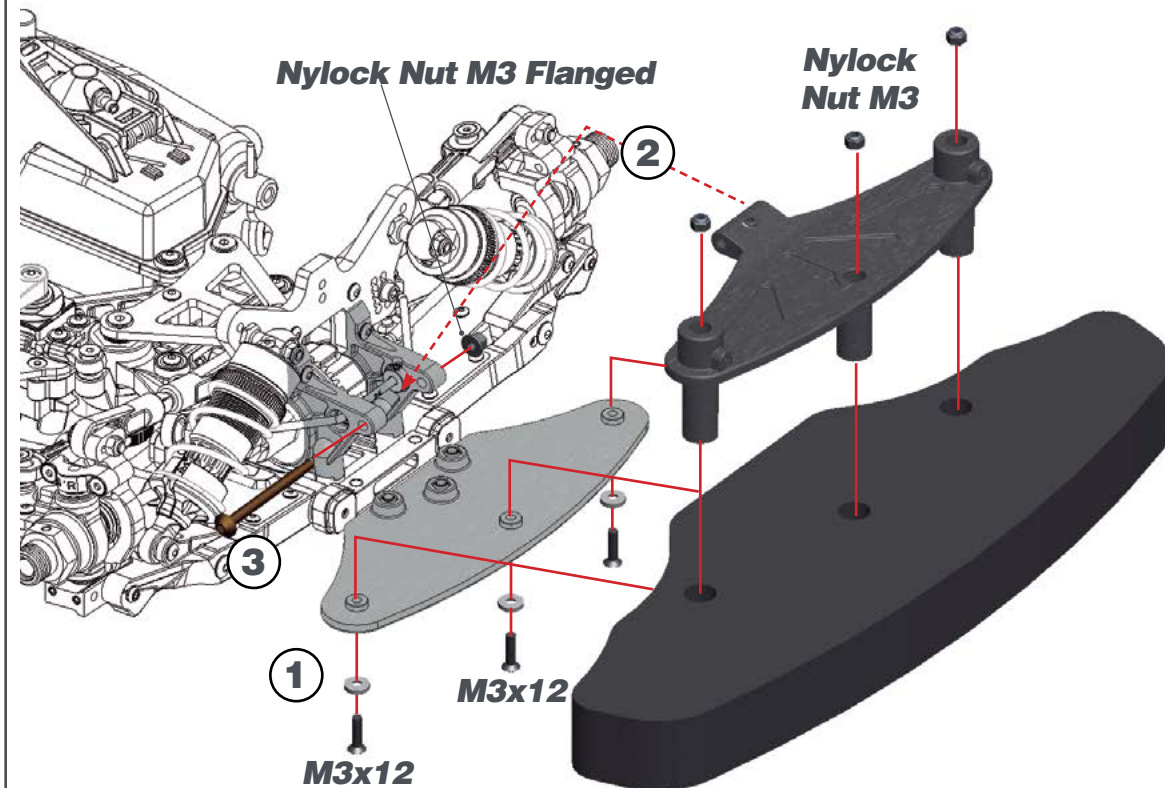


STEP 63

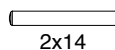
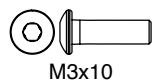
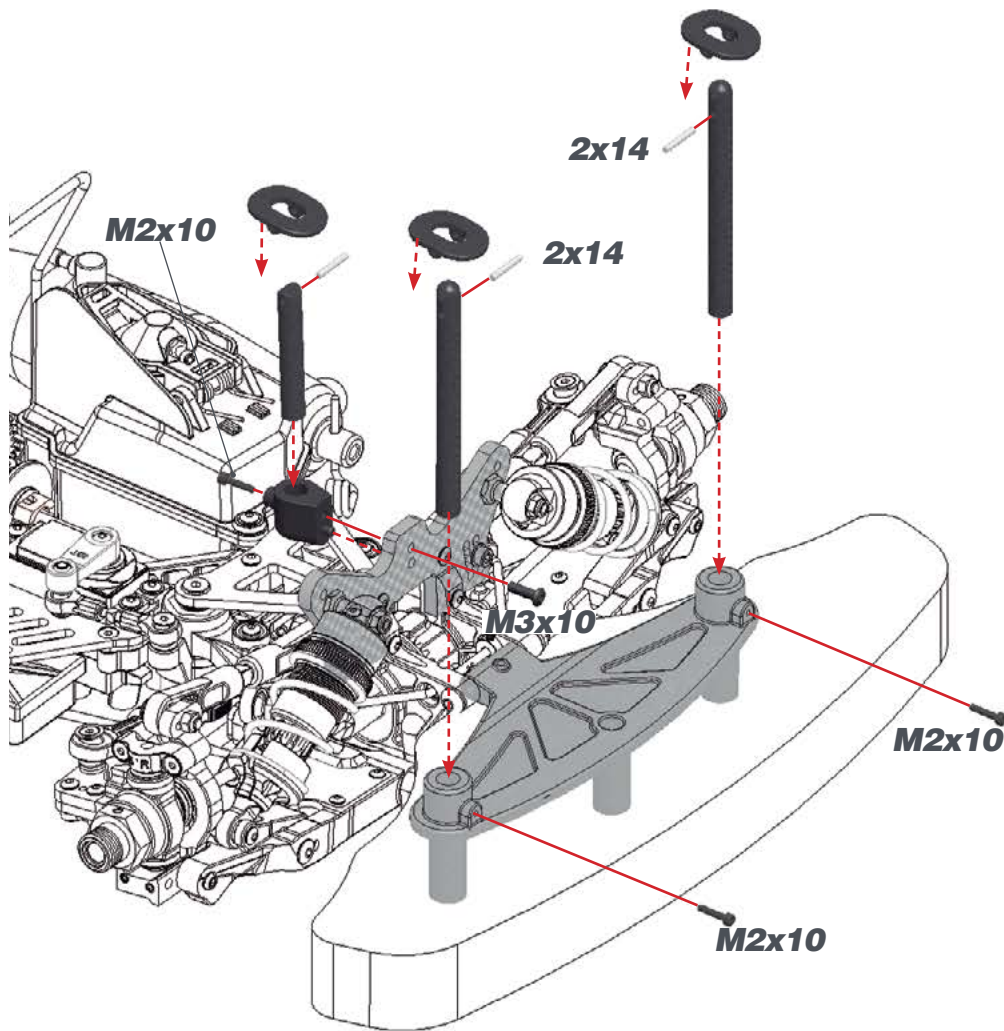
BAG 15



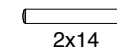
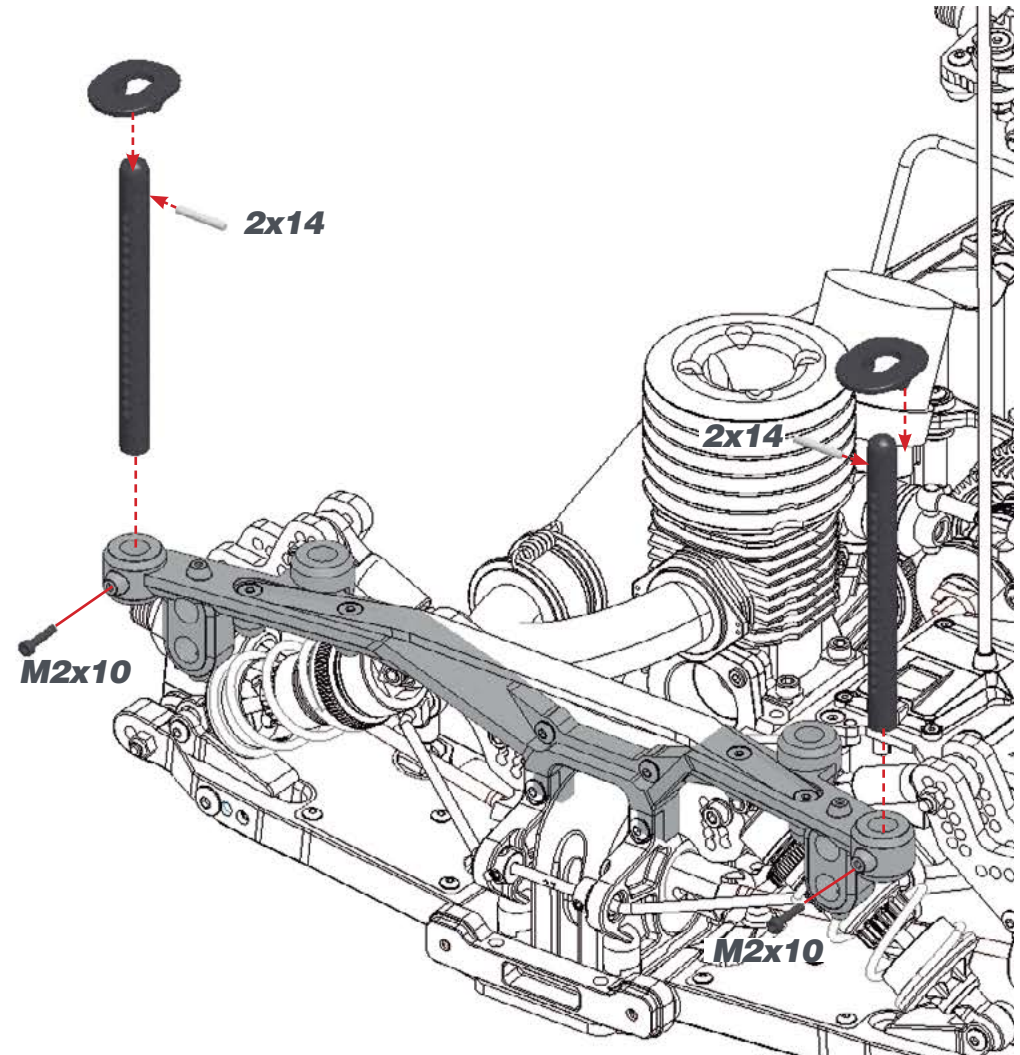
STEP 64



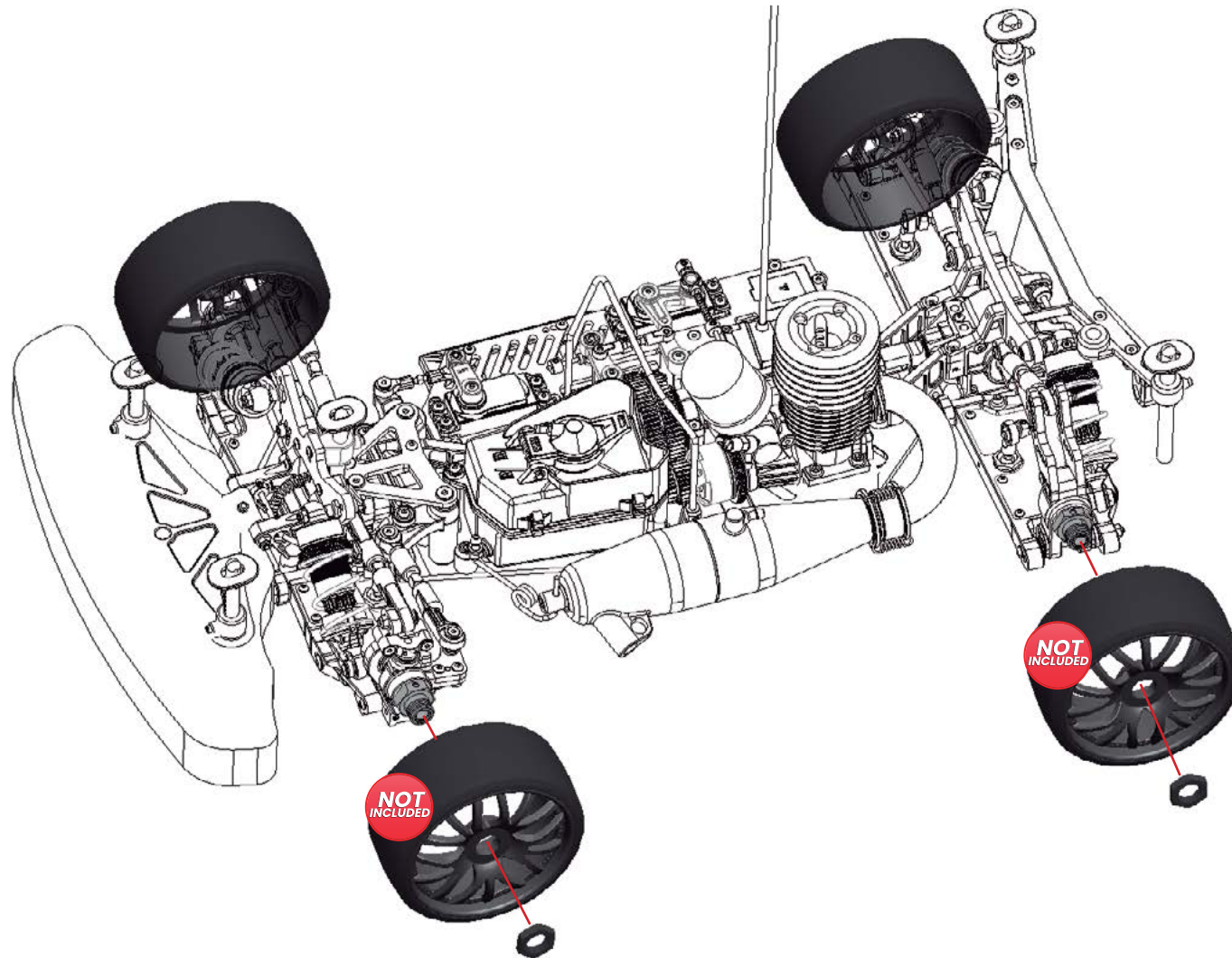
STEP 65



STEP 66



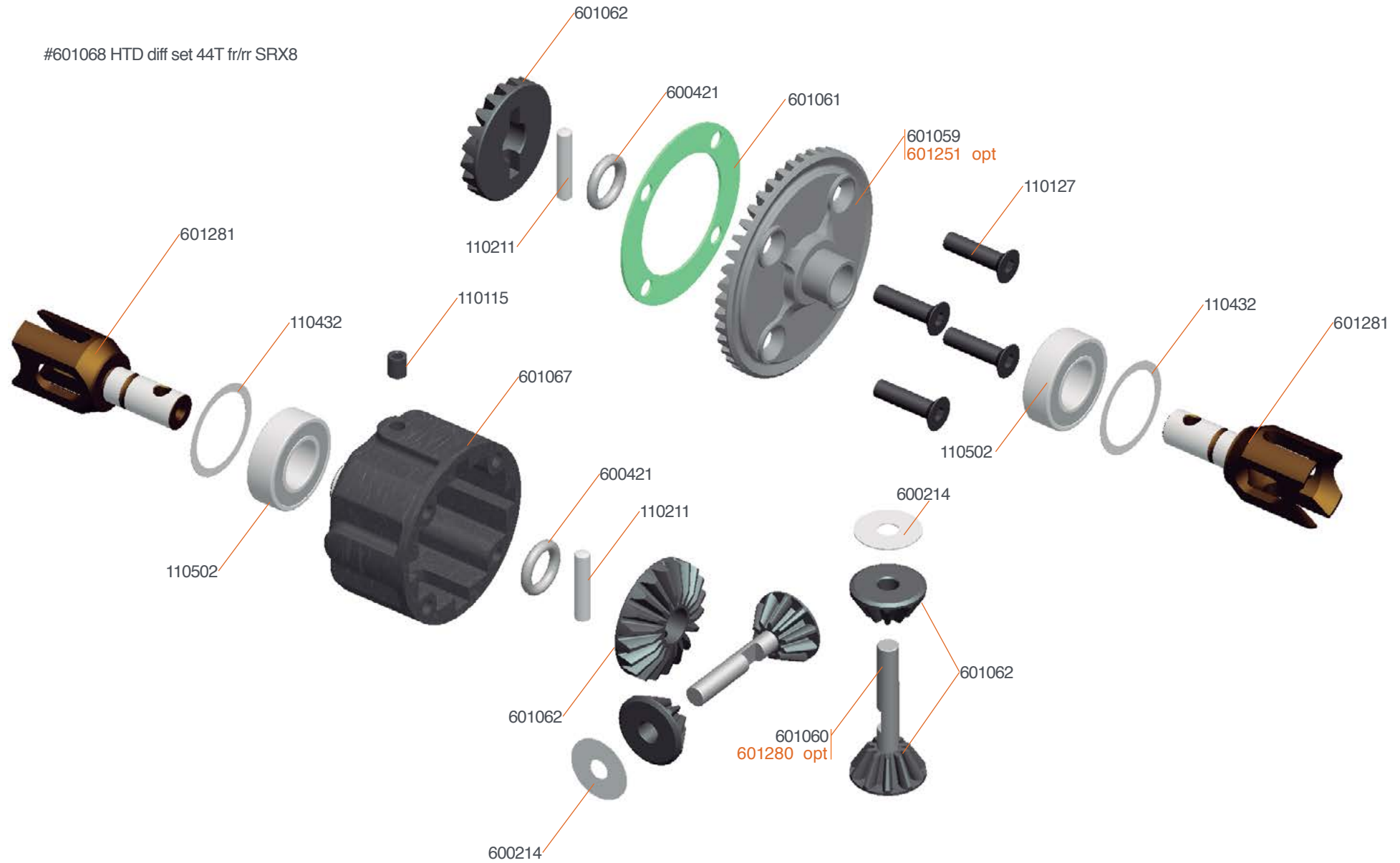
STEP 67



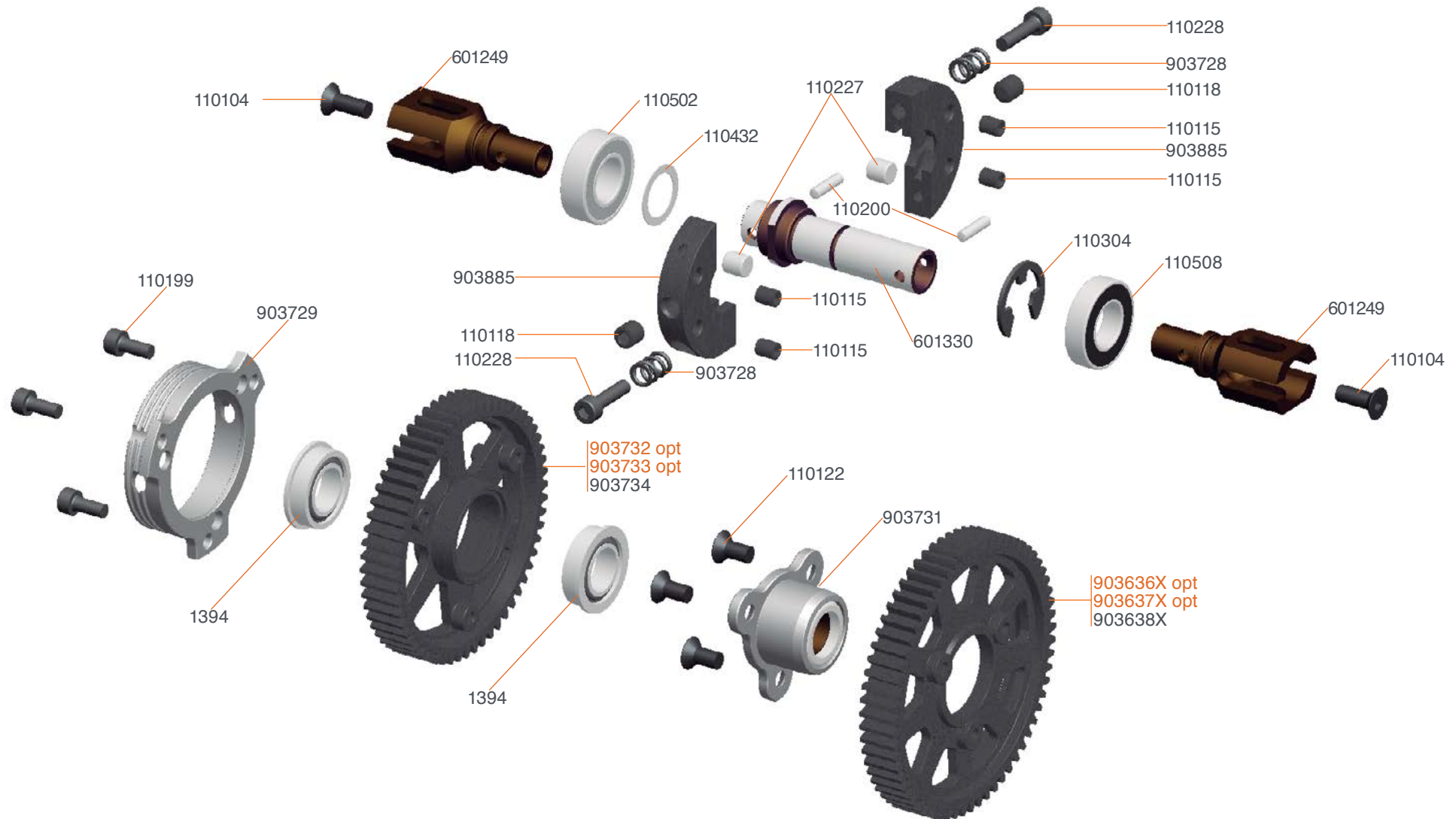
INDEX

DIFFERENTIALS EXPLODED VIEW	43
GEARBOX EXPLODED VIEW	44
MID EXPLODED VIEW	45
REAR EXPLODED VIEW	46
FRONT EXPLODED VIEW	47
STEERING EXPLODED VIEW	48
RADIO EXPLODED VIEW	49
CLUTCH EXPLODED VIEW	50
SHOCKS EXPLODED VIEW	51
ENGINE AND EXHAUST	52
FINAL 1 EXPLODED VIEW	53
FINAL 2 EXPLODED VIEW	54

#601068 HTD diff set 44T fr/r SRX8



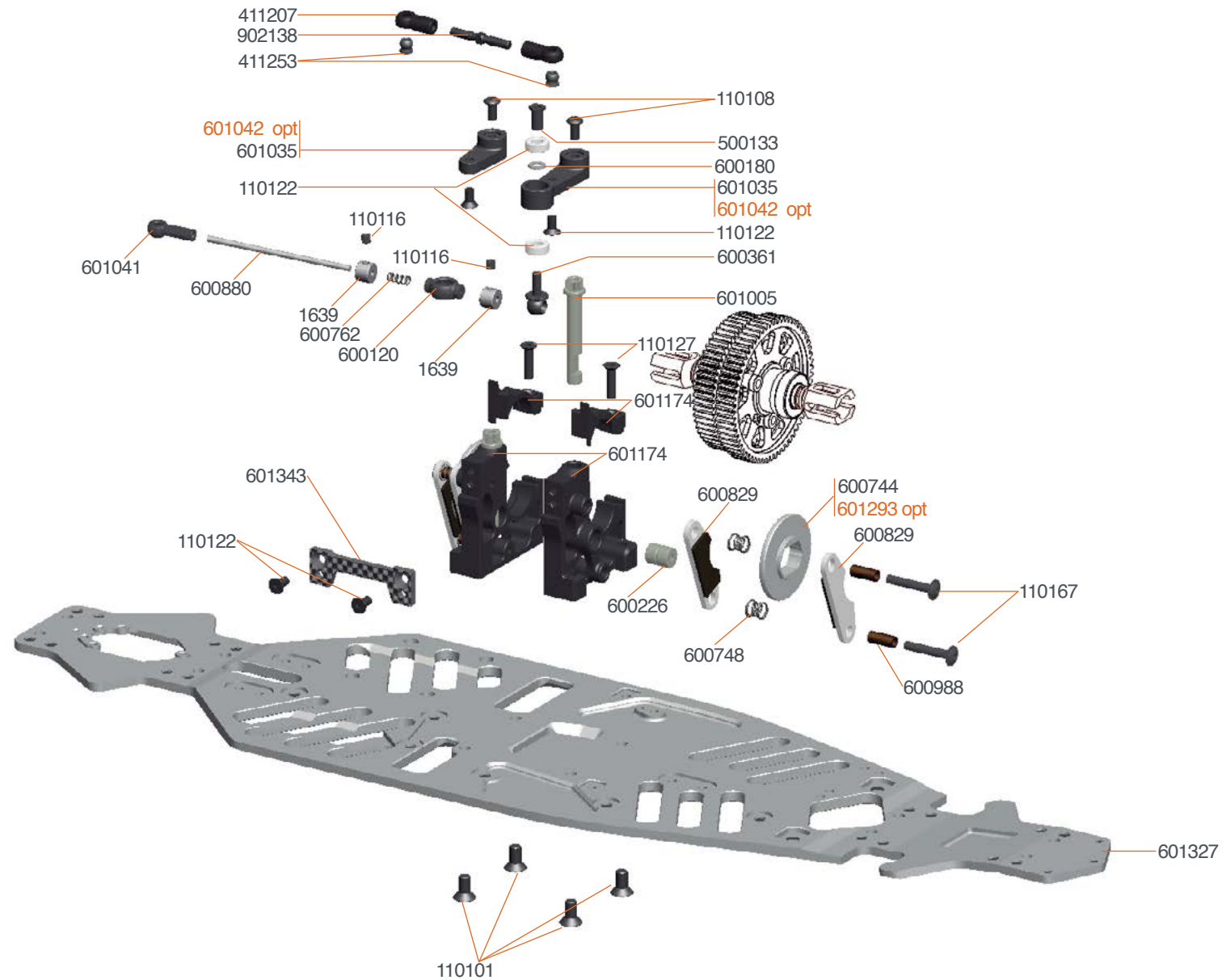
601250 HTD diff set 44T SRX8 GT V2
601251 HTD diff gear 44T SRX8 GT V2
601280 HTD diff X-shaft alu SRX8



903636X 2-speed gear 61T SL8 XLI V2
 903732 2-speed gear 56T XLI Gen2
 903637X 2-speed gear 62T SL8 XLI
 903733 2-speed gear 57T XLI Gen2

903771 2-speed gear set (6) XLI Gen2



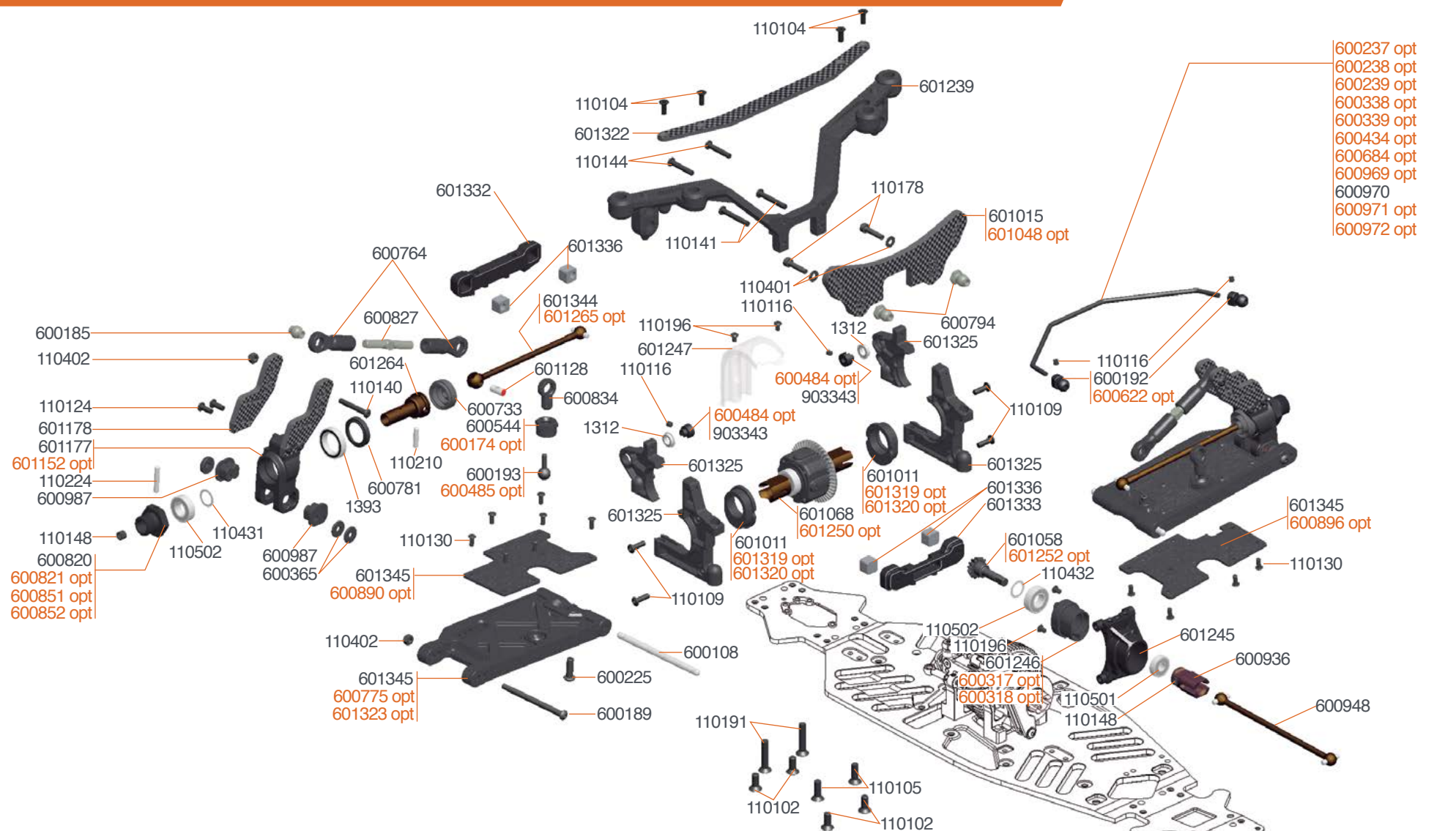


601042 Brake lever fr / rr alu SRX8 GT
601293 Brakedisk pro (2) SRX8

REAR EXPLODED VIEW

SRX8GT

SERPENT



600237 opt
600238 opt
600239 opt
600338 opt
600339 opt
600434 opt
600684 opt
600969 opt
600970
600971 opt
600972 opt

600185
110402
110124
601178
601177
601152 opt
110224
600987
110148
600820
600821 opt
600851 opt
600852 opt

600764
600827
601264
110140
600781
1393
110431
110502
600987
600365
601345
600890 opt
110402
601345
600775 opt
601323 opt

601332
601336
601344
601265 opt
601128
600834
600733
600544
600174 opt
600193
600485 opt
110130
600108
600225
600189

110104
601322
110144
601332
110141
110196
601247
110116
1312
600484 opt
903343
601325
601011
601319 opt
601320 opt
601068
601250 opt
601011
601319 opt
601320 opt
110109
110191
110102
110105
110102

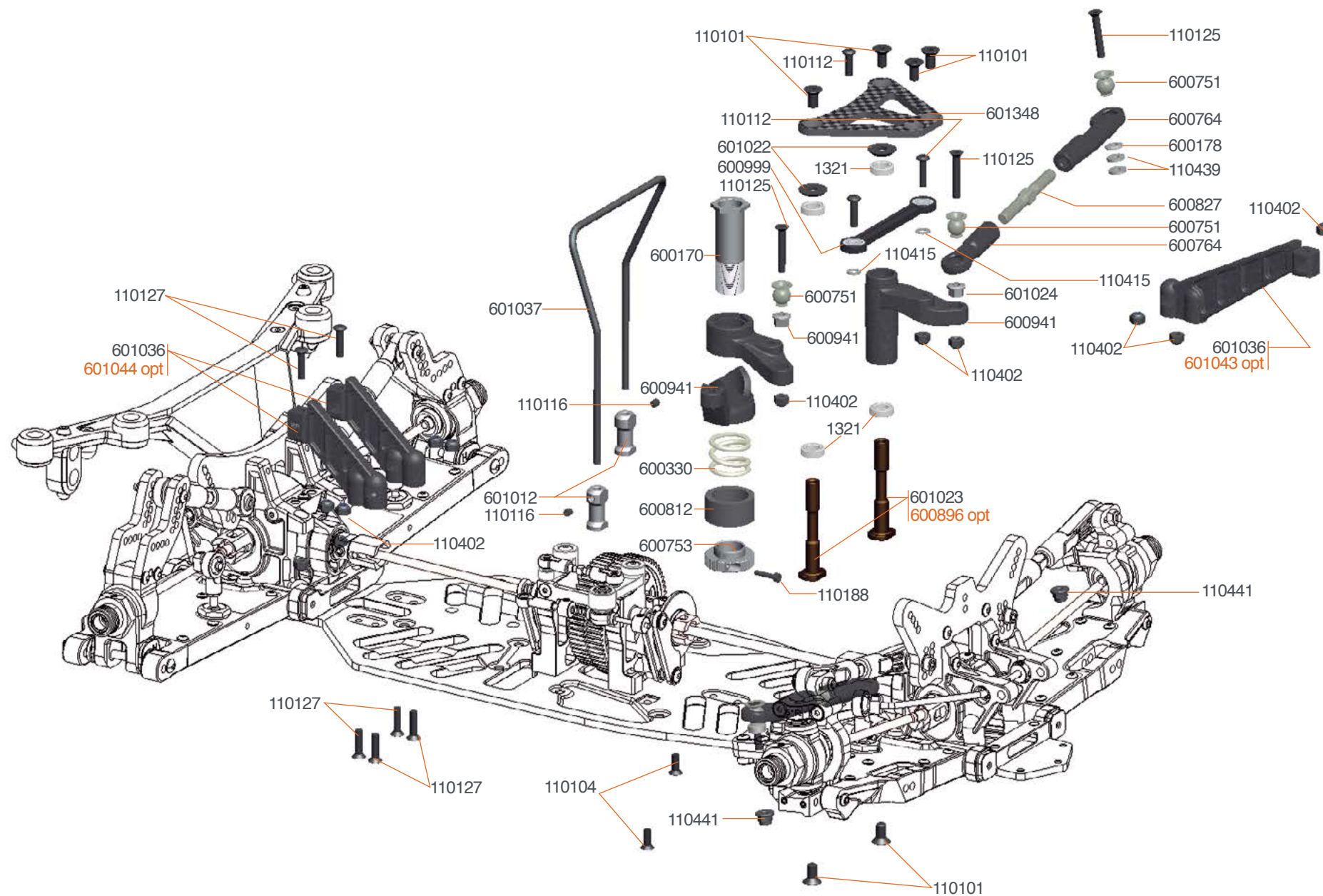
110104
601239
110178
601015
601048 opt
110401
110116
600794
601325
110109
601325
601336
601333
601058
601252 opt
110432
601245
600936
600948
110501
110148
110196
601246
600317 opt
600318 opt

600895 Wishbone RR L+R SRX8
601265 Driveshaft 98mm (2) V2
601323 Wishbone rr L+R SRX8 hard
601317 Pinion mount insert H/L alu SRX8 GT V2
601318 Pinion mount insert MH/M/L alu SRX8 GT V2
601319 Diff excenters fr/r H/L alu (2) SRX8 GT
601320 Diff excenters fr/r alu MH/M/L (2) SRX8 GT

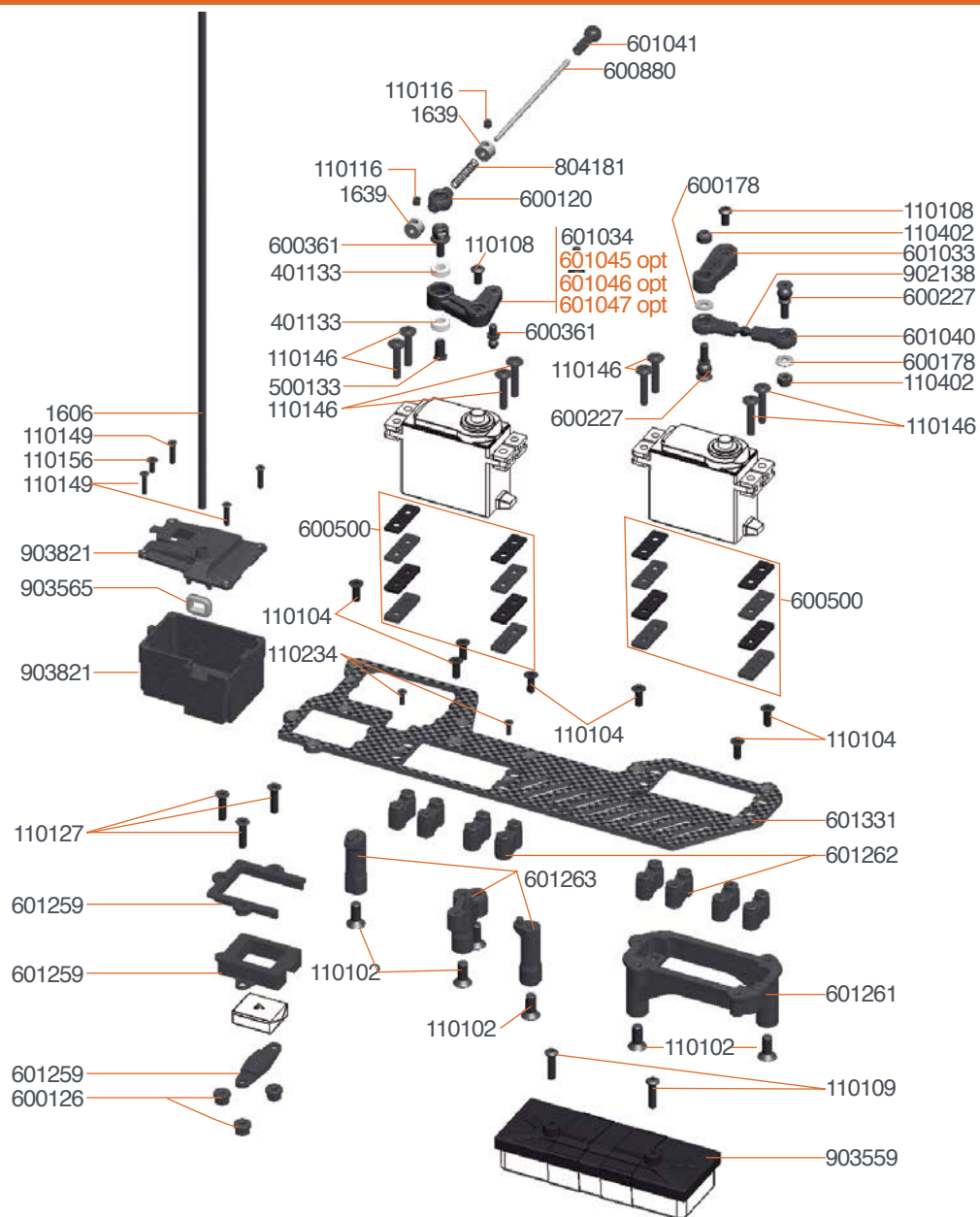
OPT



- Wishbone FR L+R SRX8
601265 Driveshaft 98mm (2) V2
601309 Adjustable casterblock mount 6.25 deg L+R
SRX8 GT
601317 Pinion mount insert H/L alu SRX8 GT V2
601318 Pinion mount insert MH/M/L alu SRX8 GT V2
601319 Diff excenters fr/r H/L alu (2) SRX8 GT
601320 Diff excenters fr/r alu MH/M/L (2) SRX8 GT
601324 Wishbone fr L+R SRX8 hard
600775 Wishbone FR L+R SRX8



601044 Transmission brace rr alu SRX8 GT (2)
 601043 Transmission brace fr alu SRX8 GT
 601157 Steering post alu SRX8 GT (2)



601045 Servo lever throttle 23T alu SRX8 GT
 601046 Servo lever throttle 24T alu SRX8 GT
 601047 Servo lever throttle 25T alu SRX8 GT

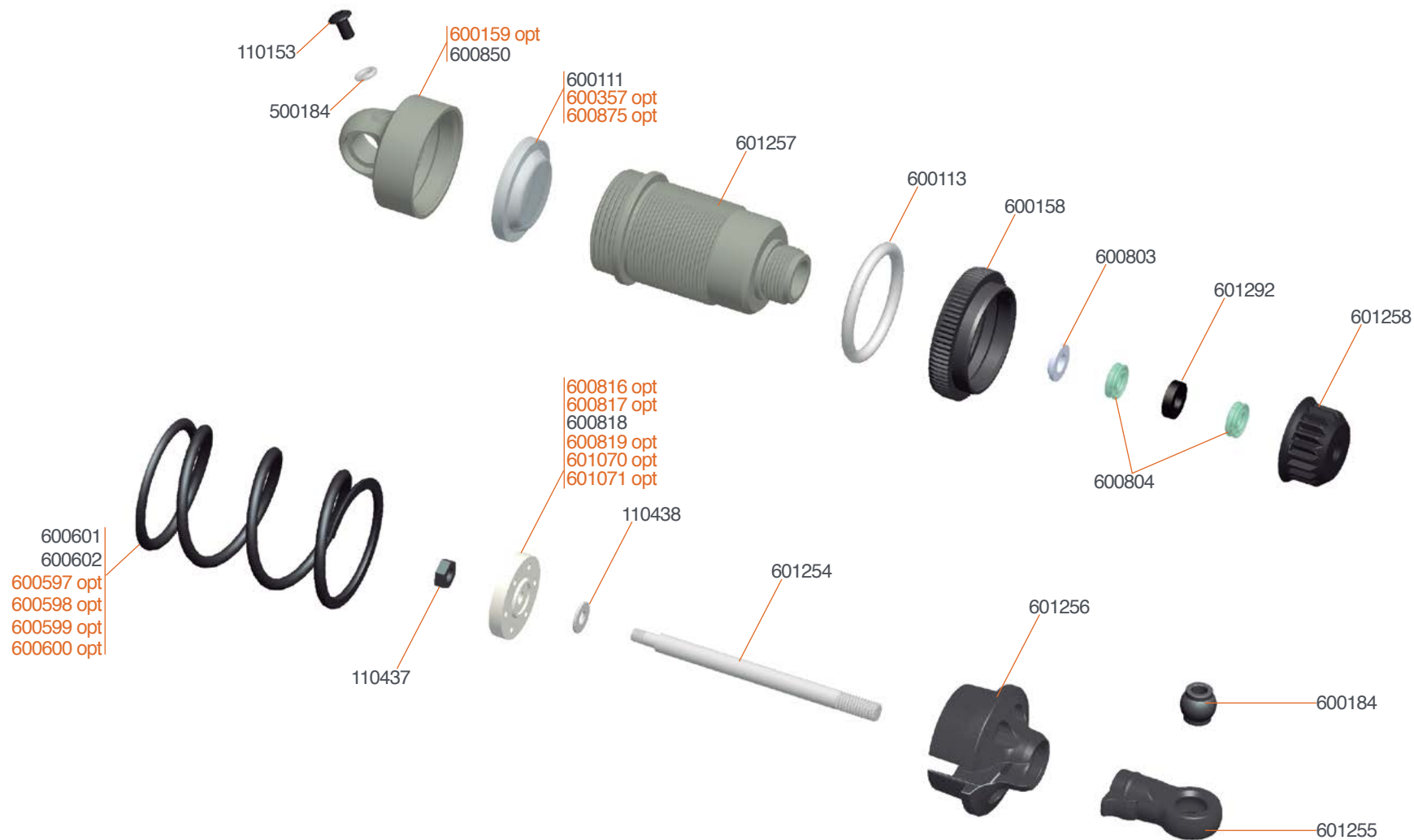
#601163 ADJUSTABLE GT CLUTCH SET



903643 Centax gear-pinion alu 23T XLI
903645 Centax gear-pinion alu 25T XLI
601169 Adjustable GT clutchshoe yellow

903796 Centax spring XX-hard
903799 Centax gear-pinion alu 18T XLI Gen2
903801 Centax gear-pinion alu 20T XLI Gen2

903805 Centax gear-pinion alu set XLI Gen2 (6)
601166 Adjustable GT clutchbell alu coated



601253 Shock set (2) SRX8 GT V2

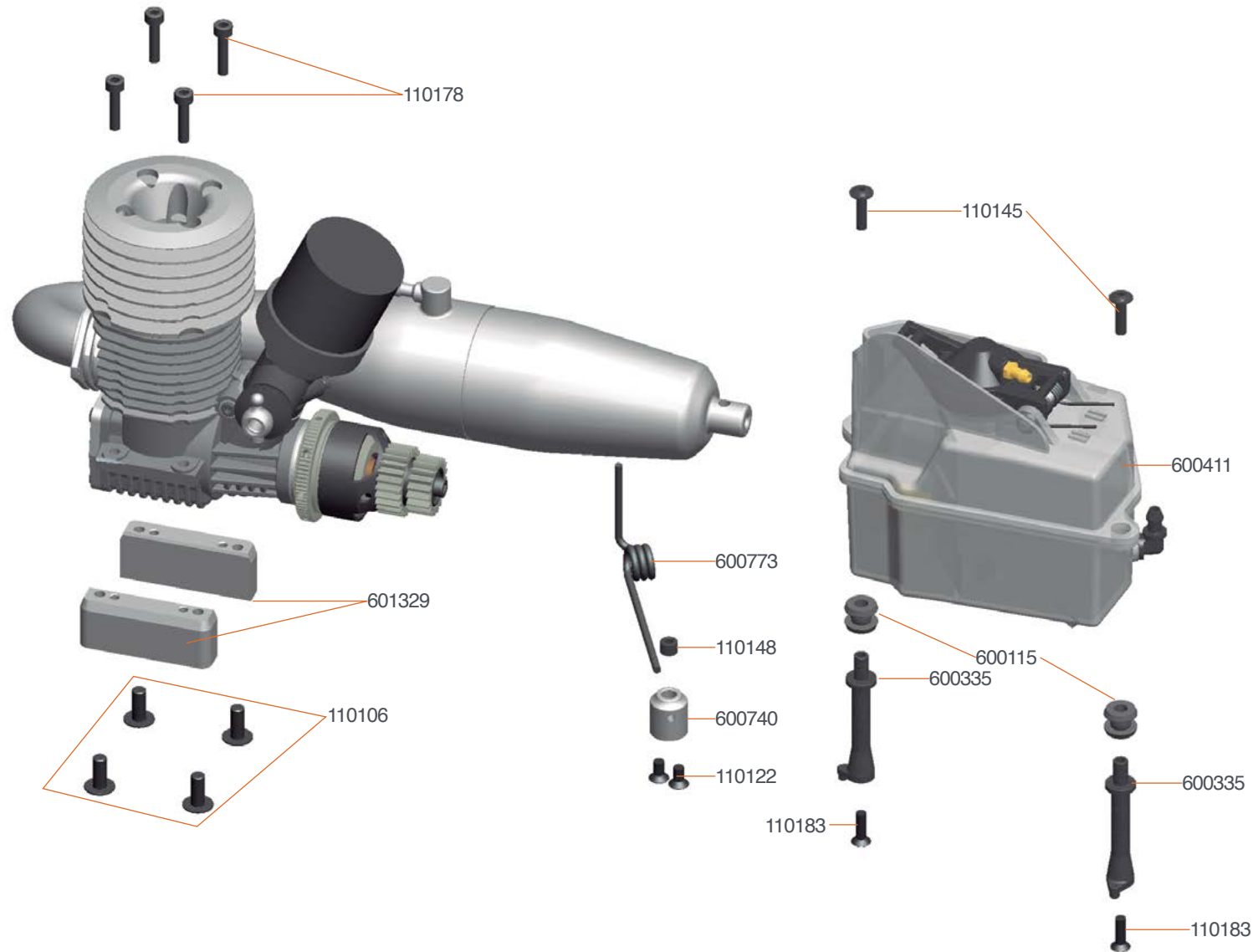


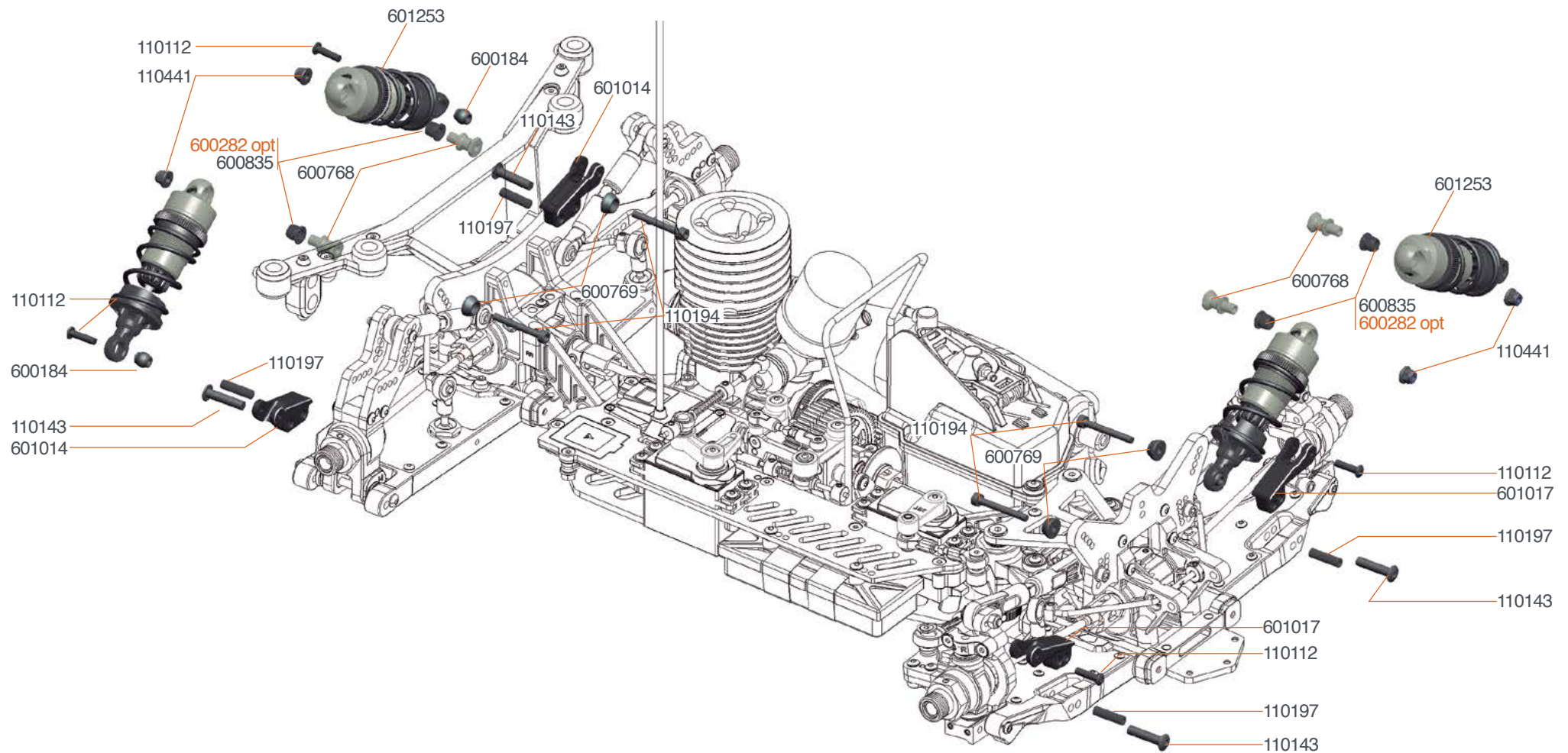
600597 Spring Fr/Rr Red 811GT 18lbs (2)
600598 Spring Fr/Rr Purple 811GT 21lbs
600599 Spring Fr/Rr Yellow 811GT 29lbs
600600 Spring Fr/Rr White 811GT 31.5lbs

600357 Membrane webbed silicone (4)
600875 Shock top gasket (4) SRX8
600816 Shock piston blank (4) SRX8
600817 Shock piston 5 holes (4) SRX8

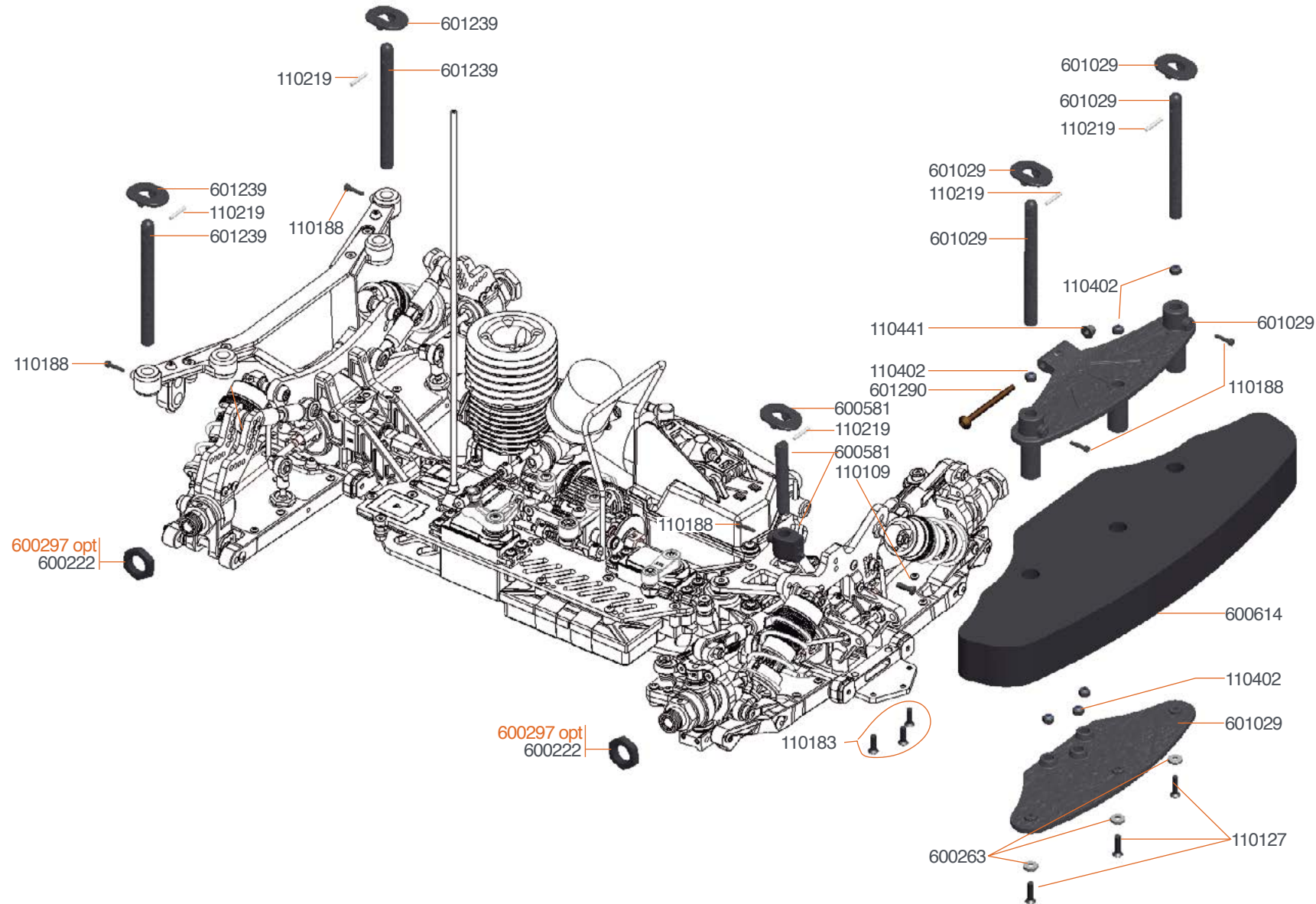
600819 Shock piston 8 holes (4) SRX8
601070 Shock piston angled 1.2mm 8holes (4) SRX8

601071 Shock piston angled 1.3mm 8holes (4) SRX8
600159 Shock top alu (2)





600282 Shock-pivot bushing delrin (4)



600297 Wheel-nut 17mm flanged/light (4)
 601050 Bumperplate carbon set SRX8 GT
 601051 Bodypost brace carbon fr/rr SRX8 GT

601269 Aero bumper set SRX8 GT

NOTES:

TEAM SERPENT NETWORK

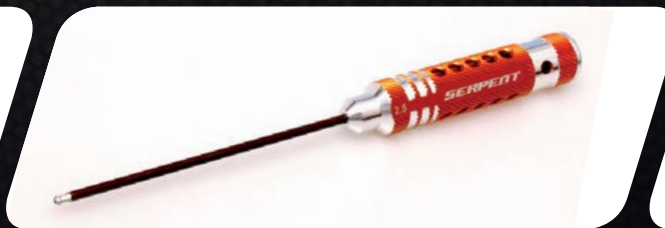
SRX8GT R SPARE PARTS



SRX8GT R OPTIONALS PARTS



SERPENT TOOLS



SERPENT MERCHANDISING



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SRX8 GTR



Manual SRX8GT R # 83813-1

SERPENT