

SRX8 GT '23



GP

1/8 scale onroad

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 SRX8 GT '23 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 SRX8 GT '23. Fine-tuning the initial setup is an essential part of building a high-performance race car like your Serpent SRX8 GT '23.

EXPLODED VIEWS AND PARTS LIST

The exploded views and parts lists for the Serpent SRX8 GT '23 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 clothes.
- Only operate this car in a safe environment, like a special racing track or a closed parking lot. Avoid using this car on public roads, crowded places or near infants.
- Before operating this car, always check the mechanical status of the car. Also check that the transmitter and receiver frequencies correspond and are not used by any other racer at the same time. Check that the batteries of the transmitter and receiver- are fully charged.
- After use, always check all the mechanics of the car. We advise to clean the car immediately after use, and inspect the parts for wear or fractures. Replace when necessary. Do not use water, methanol, thinner or other solvents to clean the car.
- Empty the fuel tank (depending on model) if needed and disconnect the receiver battery.
- Store the car in a dry and heated place to avoid corrosion of metal parts.
- Avoid using this car in wet conditions as the water will cause corrosion on the metal parts and bearings and these parts will cease to function properly. If driven in the wet, ensure that all the electric equipment is waterproofed and after use, that all moving parts are dried immediately.

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LINES DESCRIPTION

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



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



Length after assembly



Assembly path of one item into another



Group of items (within lines) should be assembled first



Direction the item should be moved



Glue one item to another



Press/Insert one item into another



Connect one item to another



Gap between two items

ICONS DESCRIPTION

Each step contains a variety of symbols described below.



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.

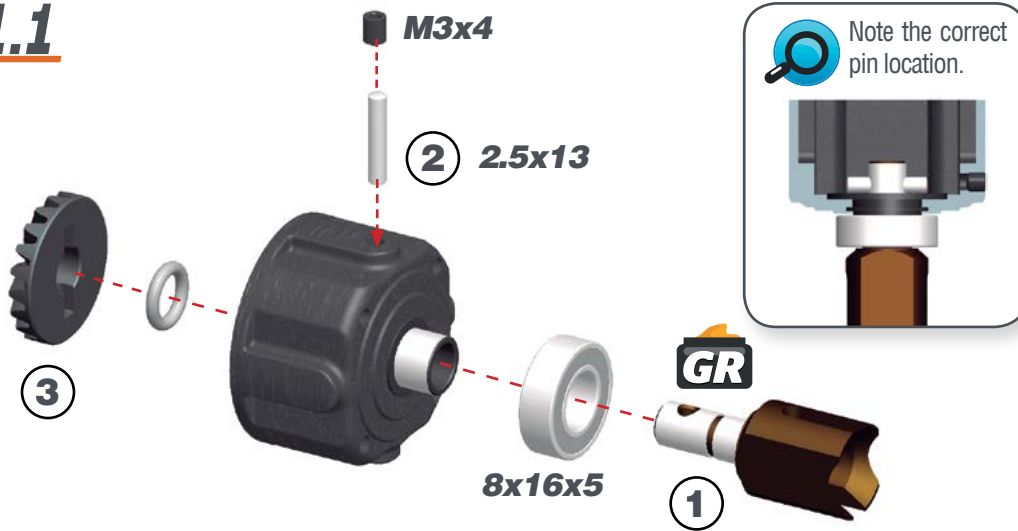


Optional part, not standard in the kit.

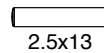
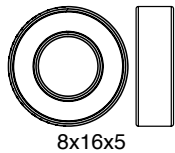
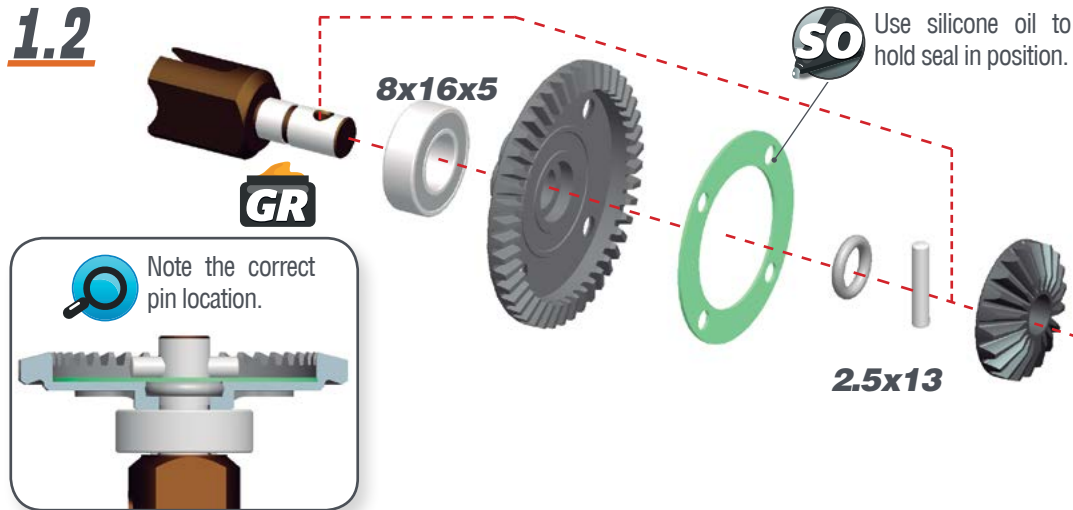
STEP 1

DIFF BAG FR/RR

1.1



1.2



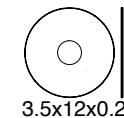
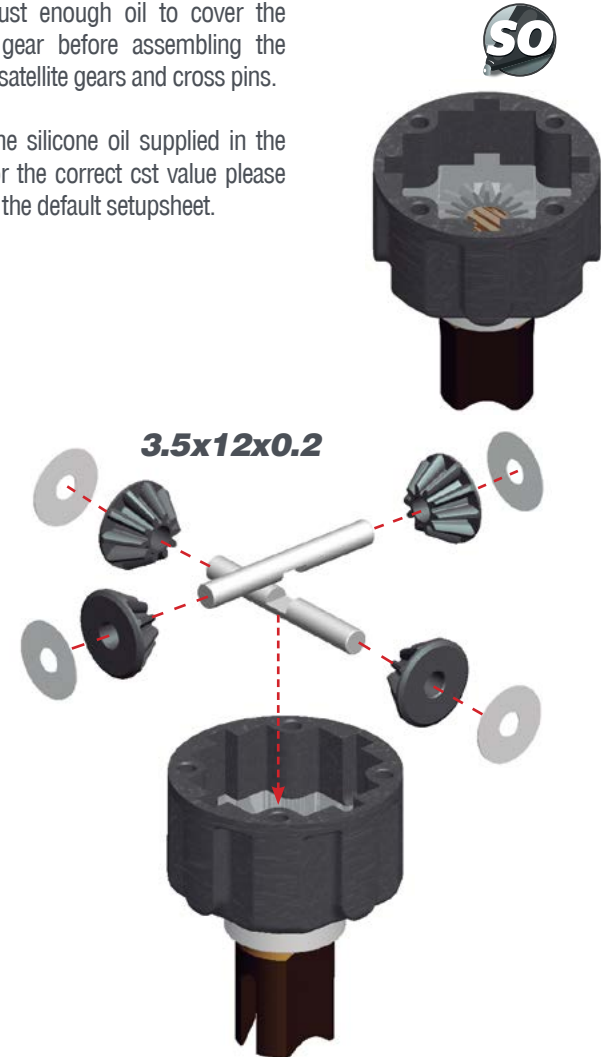
STEP 2

2.1

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

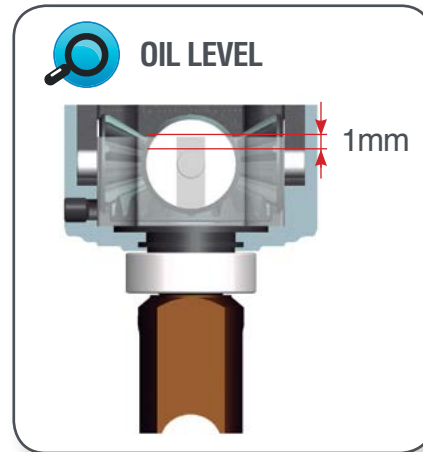
Use the silicone oil supplied in the kit. For the correct cst value please check the default setupsheet.

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.



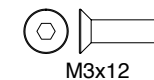
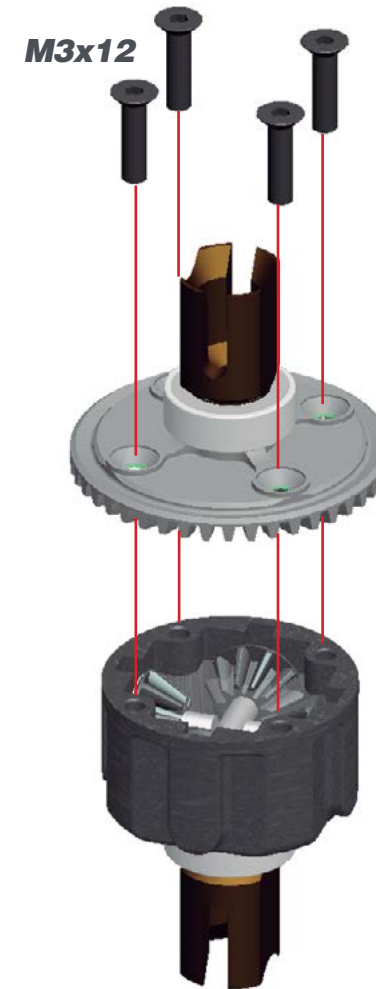
AMOUNT OF OIL IN THE DIFFS

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

Differential weight should be 45.7-45.8 grams.

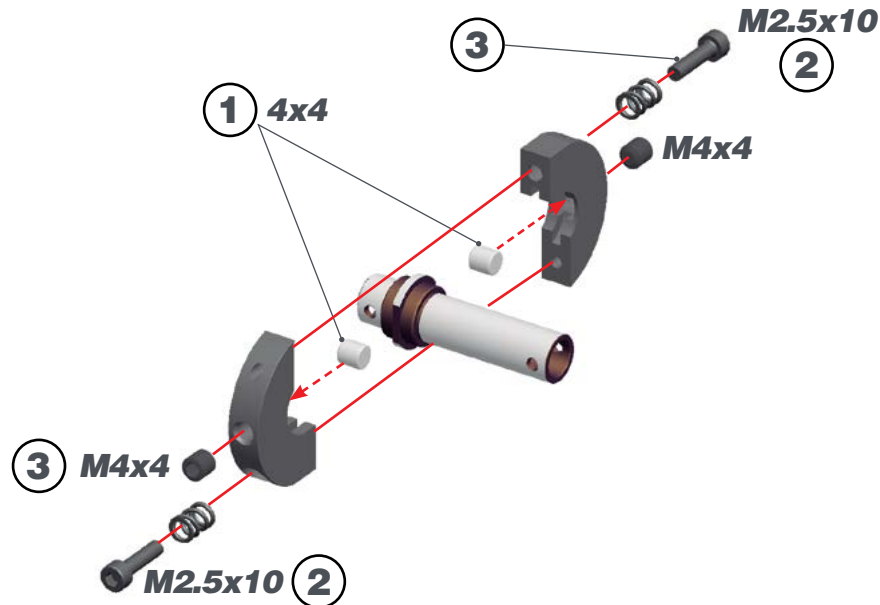


STEP 4



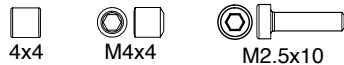
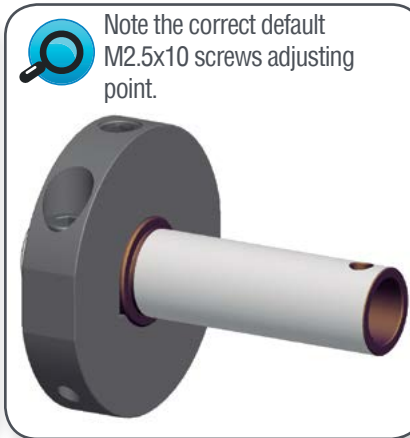
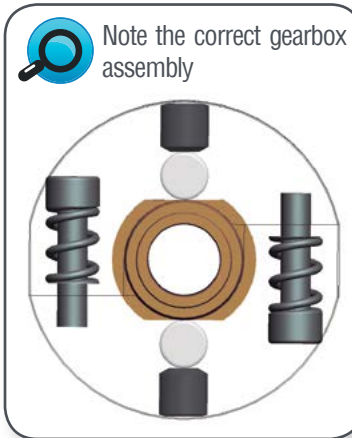
STEP 5

BAG 1



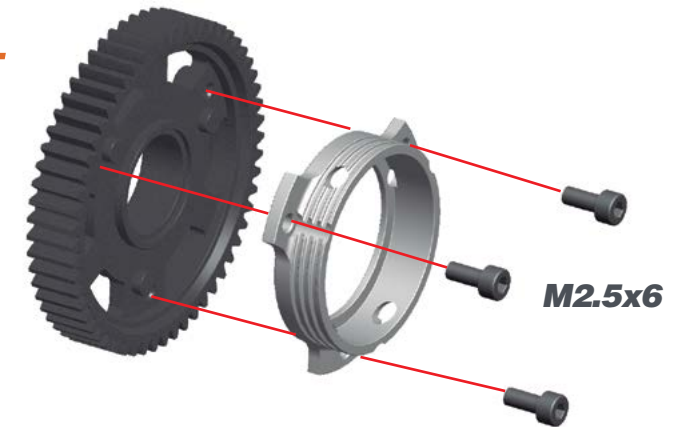
! 1- The M2.5x10 screws adjust the SHIFT POINT. As default adjustment screw them until the screws will be leveled with the hole as in the right pictures.

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.

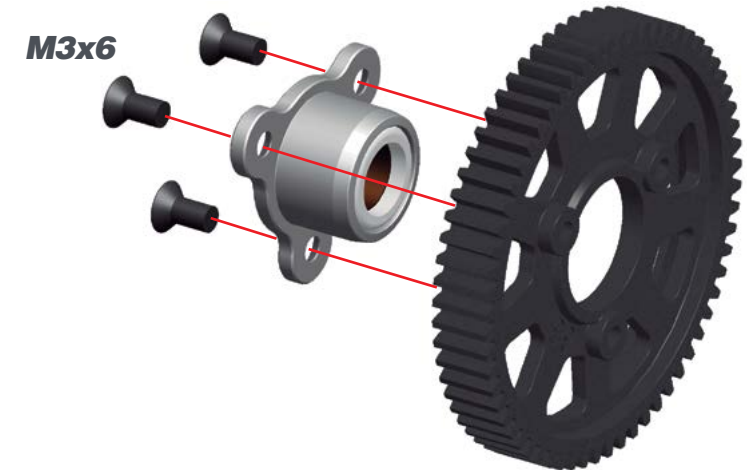


STEP 6

6.1

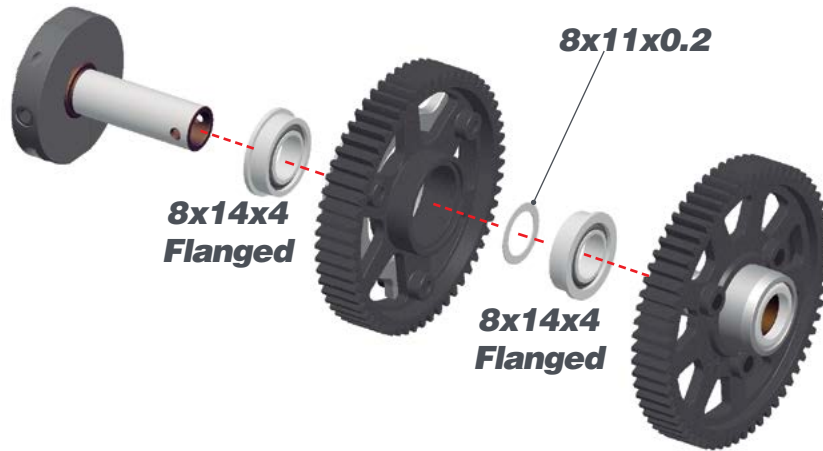


6.2

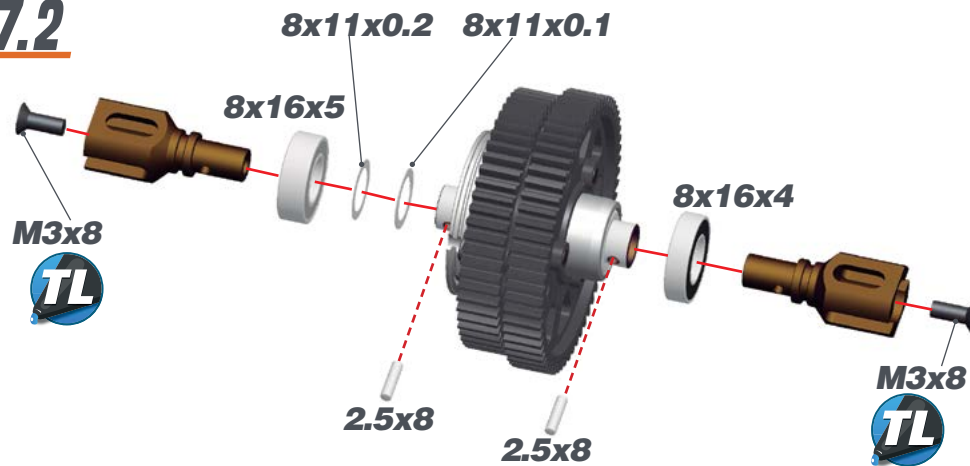


STEP 7

7.1

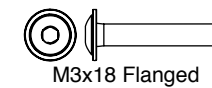
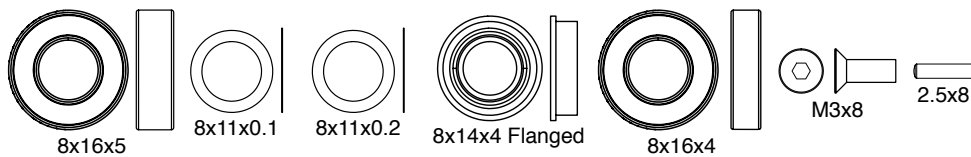
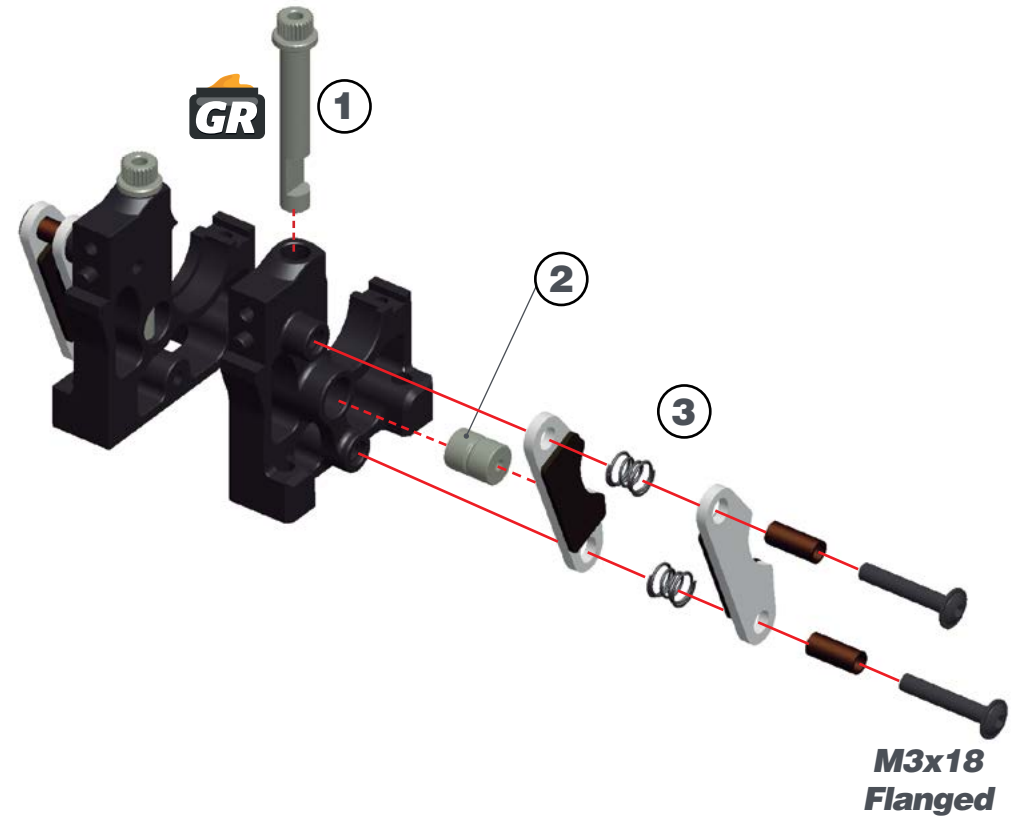


7.2

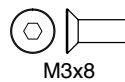
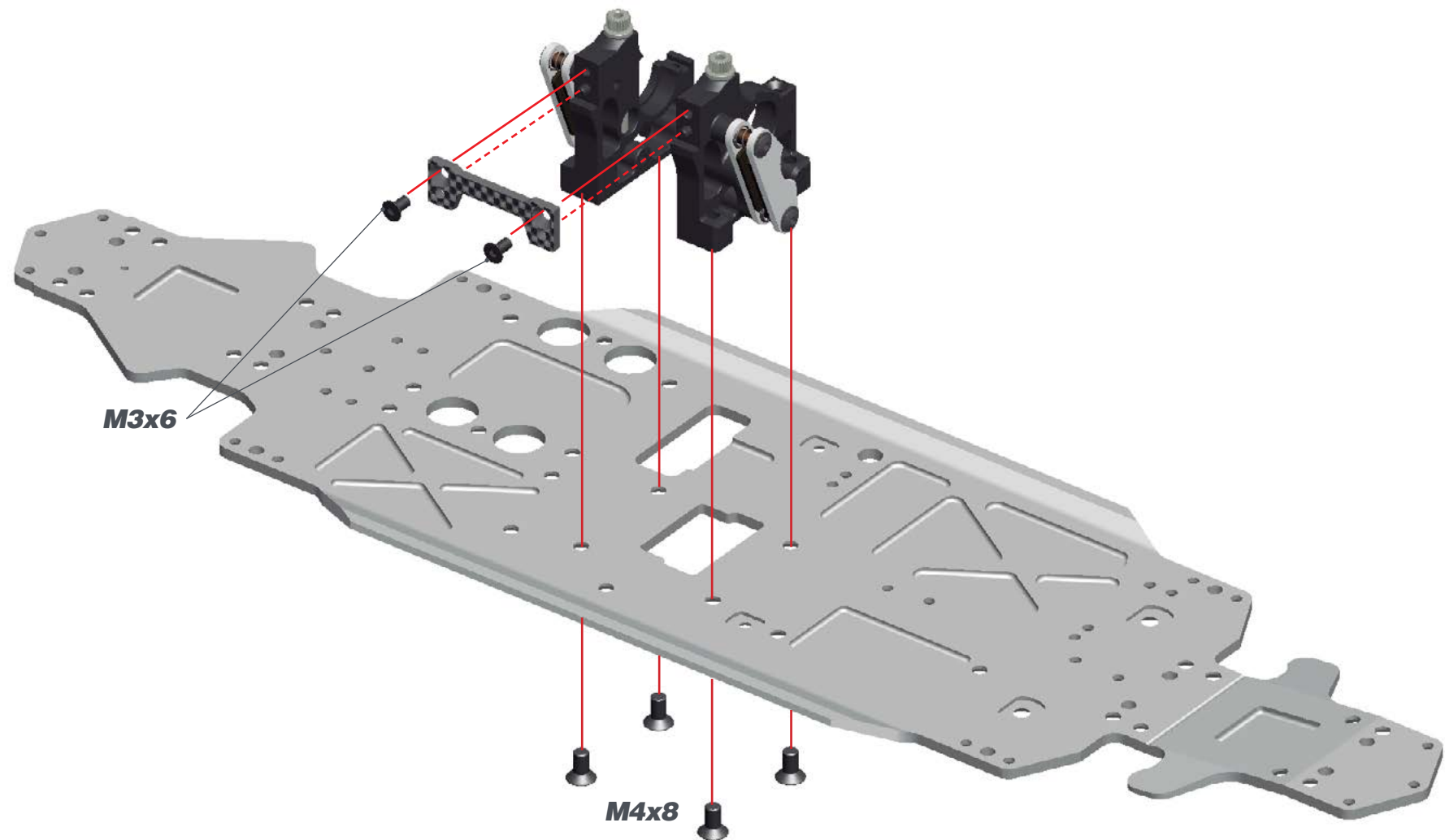


STEP 8

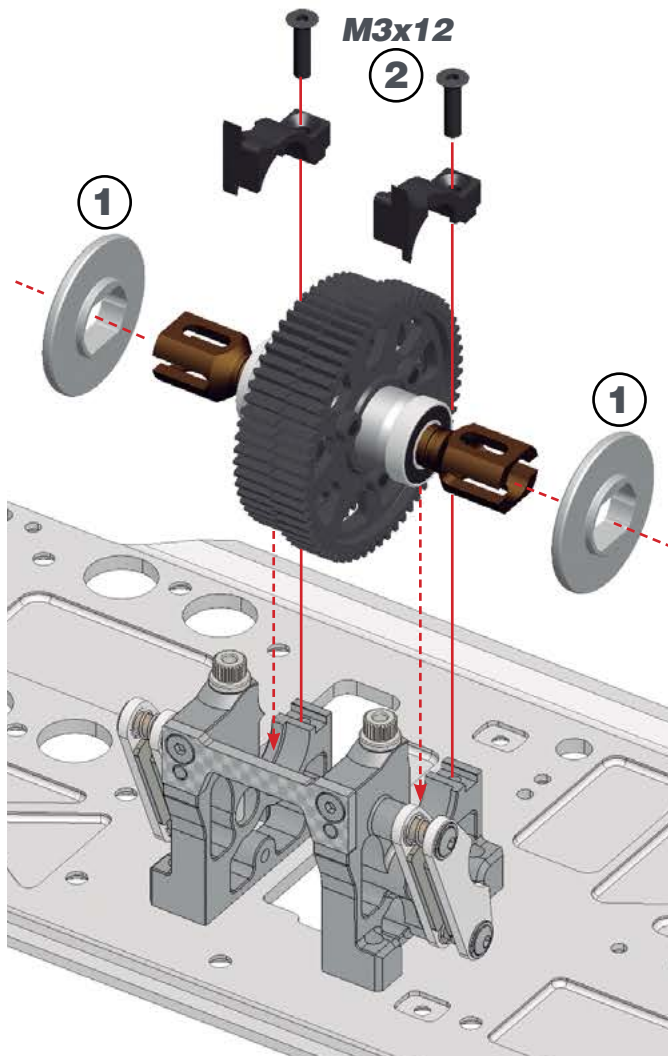
BAG 2



STEP 9

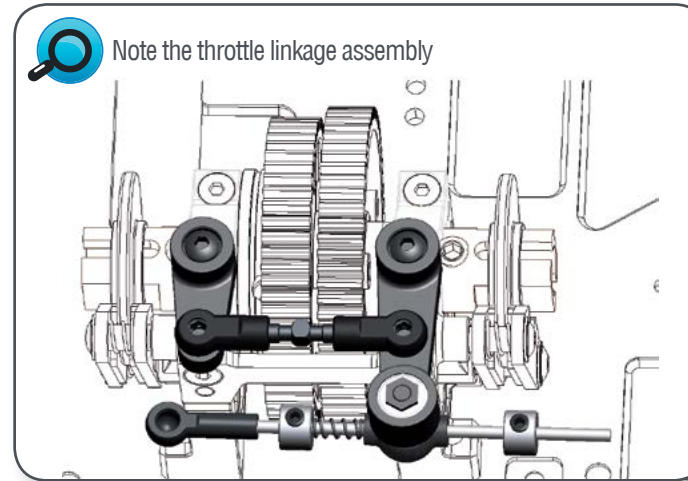
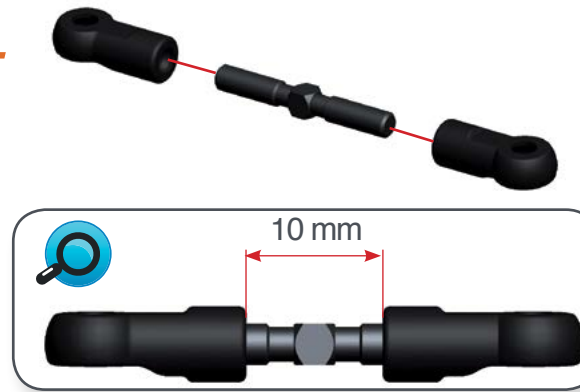


STEP 10

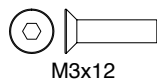
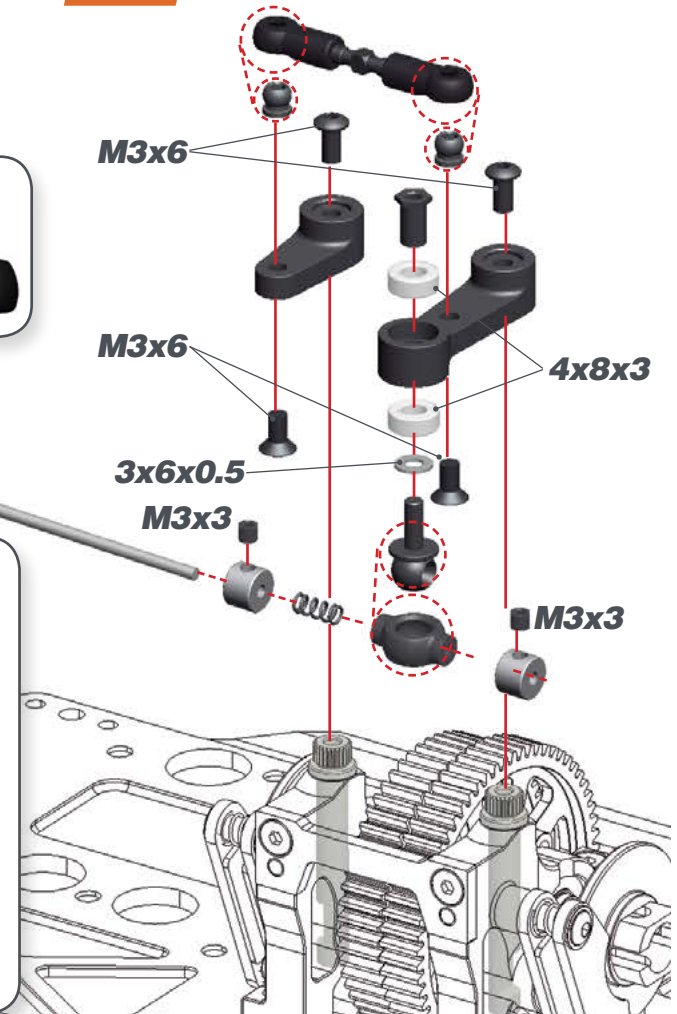


STEP 11

11.1

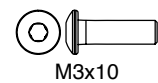
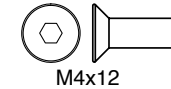
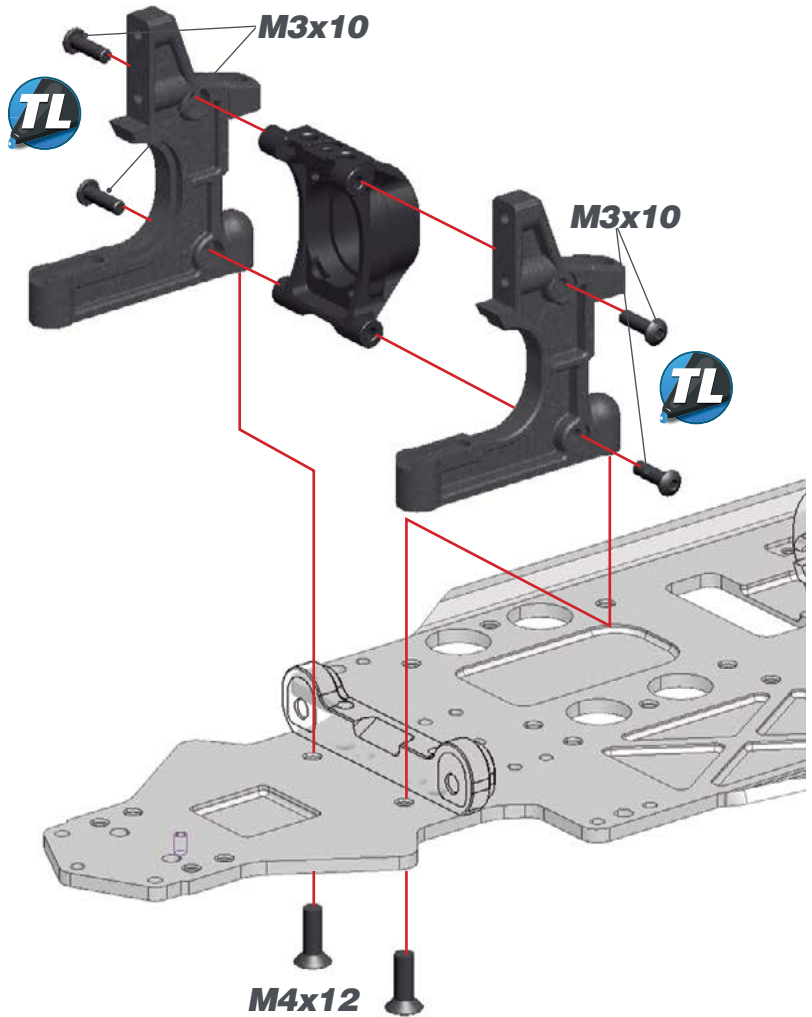
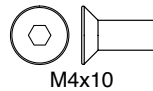
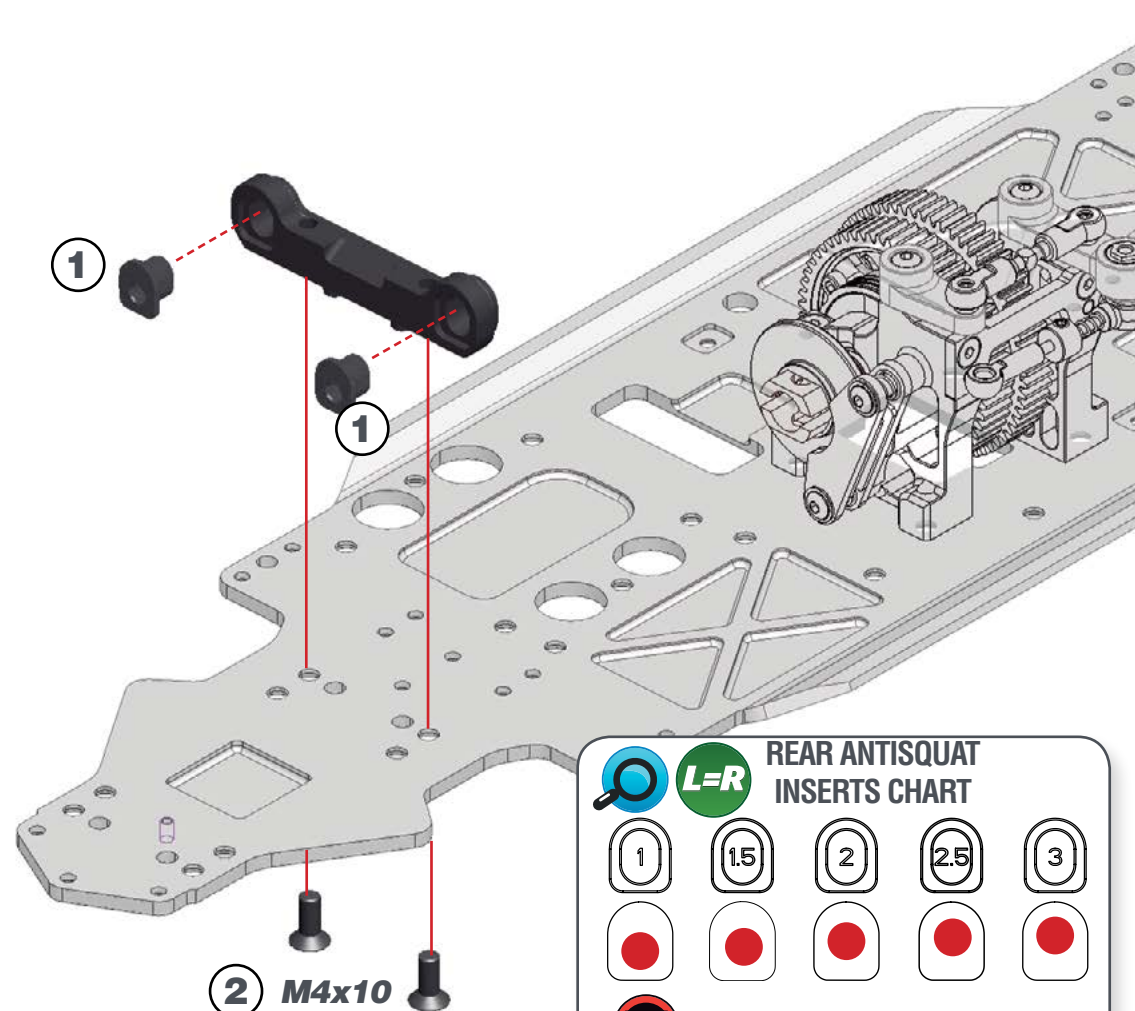


11.2



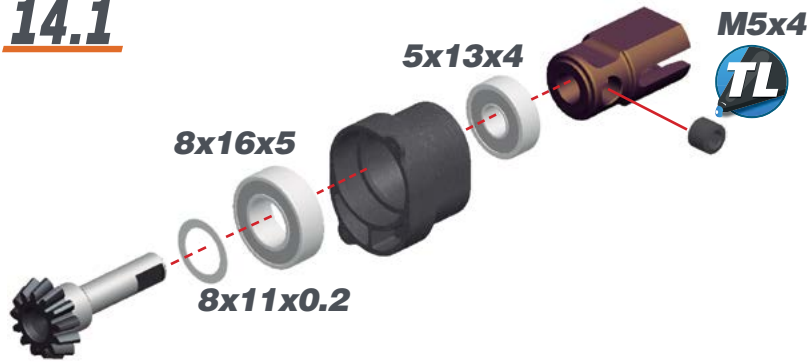
STEP 12

BAG 3



STEP 14

14.1



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

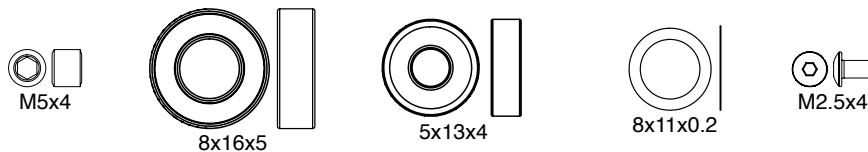
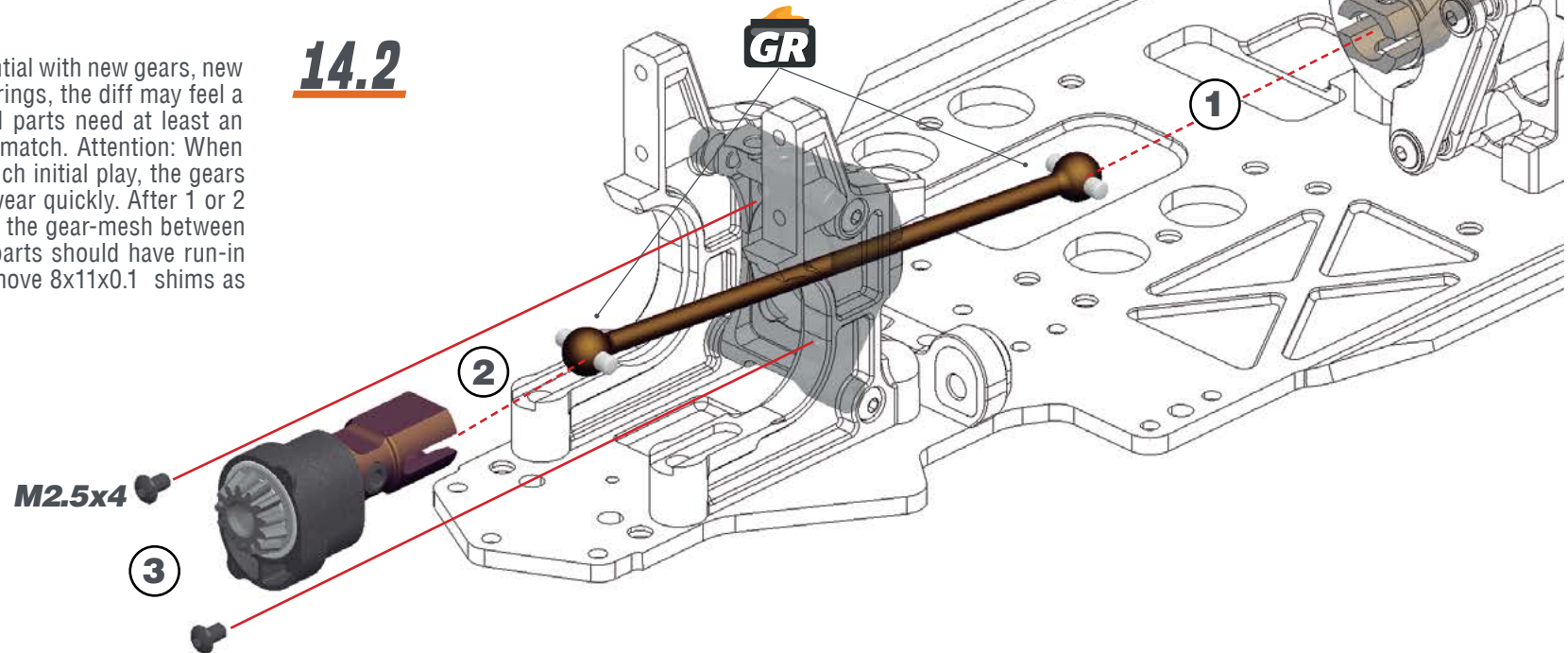
LOW	MID LOW	MID HIGH	HIGH

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



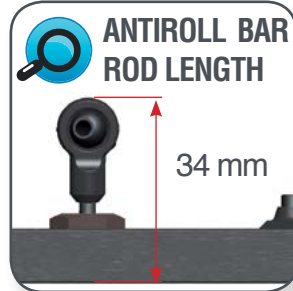
STEP 15

BAG 4

15.1 L=R

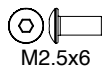


Tighten anti-roll bar cap until there is no play, and it moves freely.



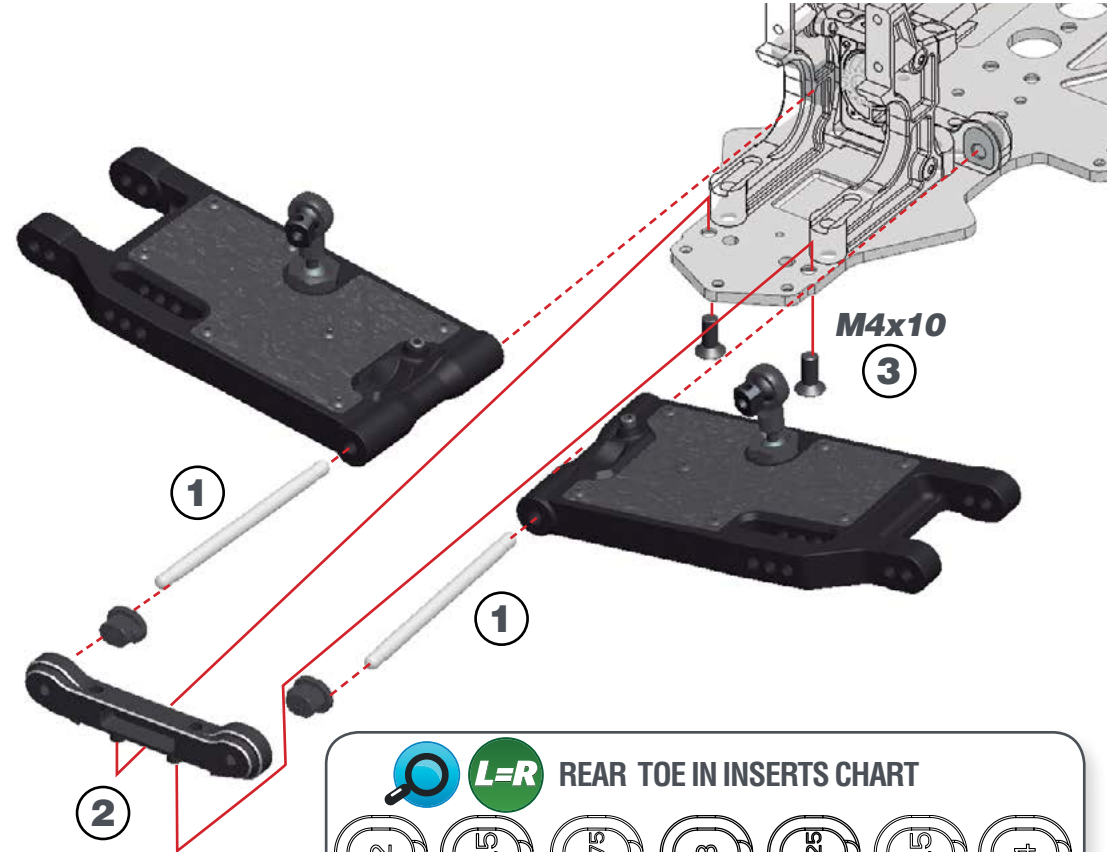
15.2

M2.5x6



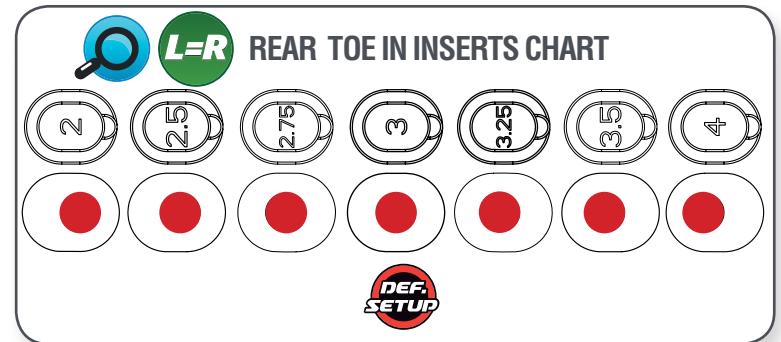
M2.5x6

STEP 16



M4x10

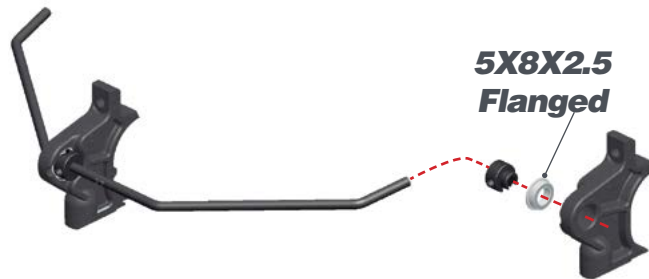
3



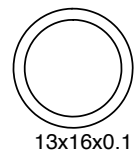
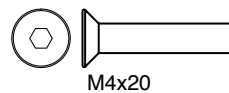
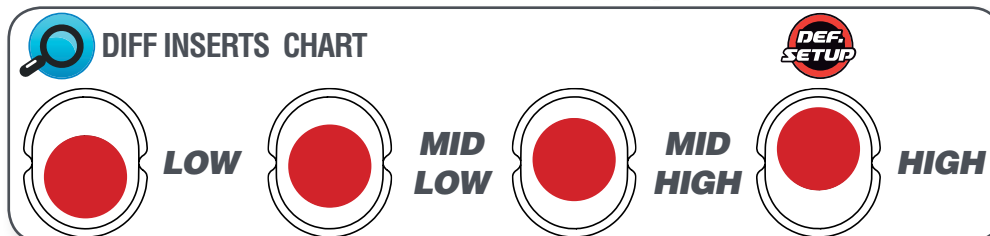
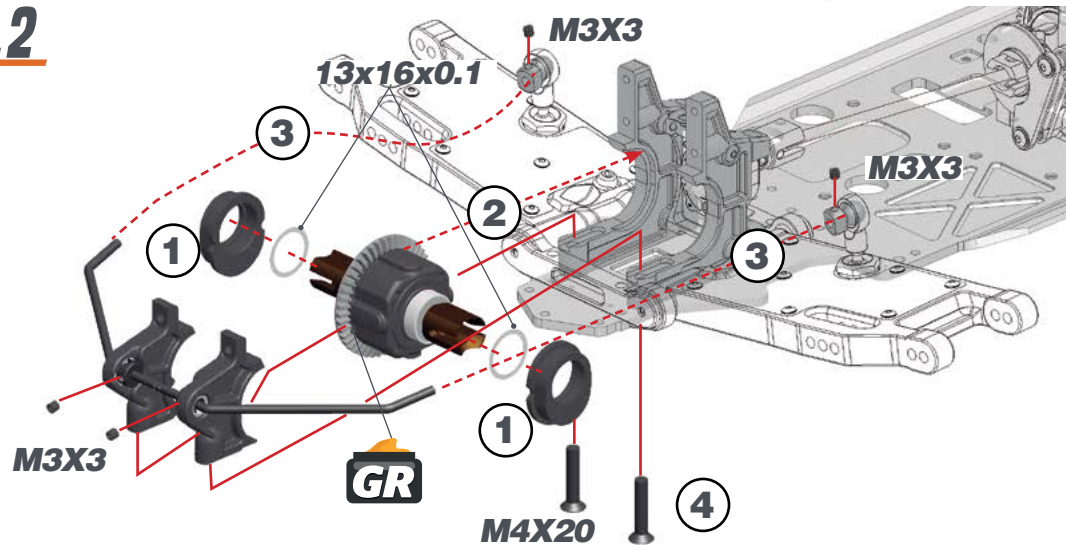
M4x10

STEP 17

17.1

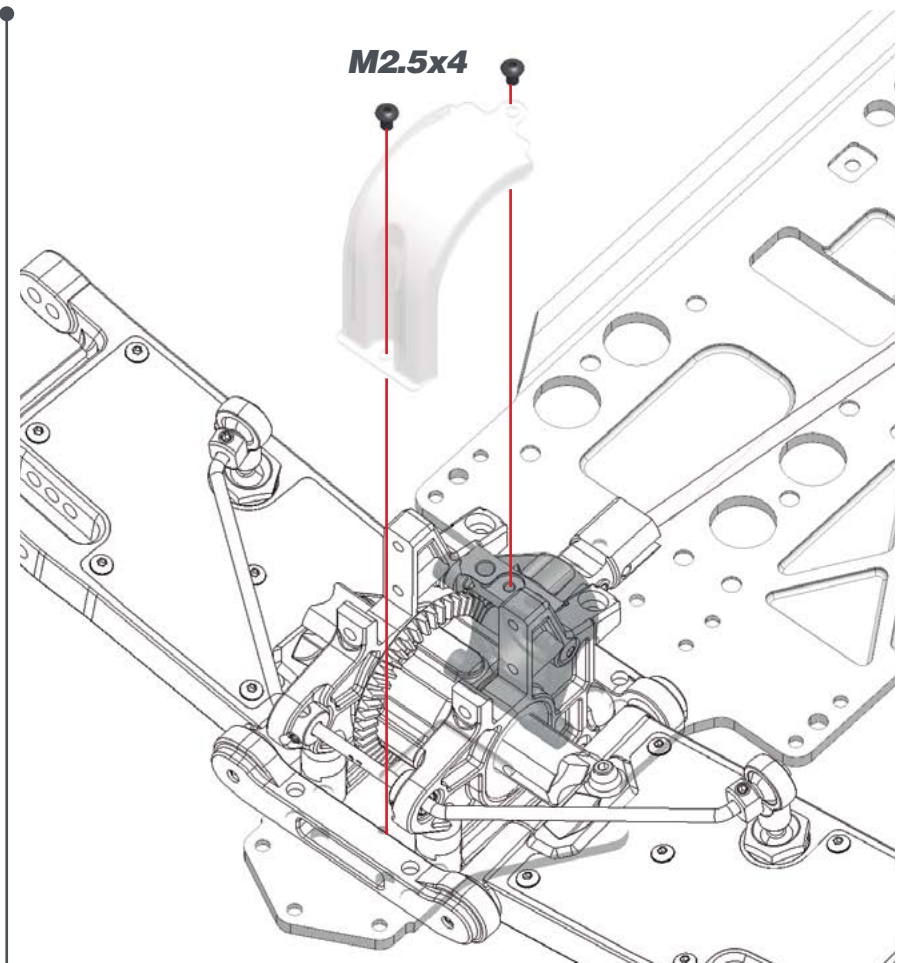


17.2



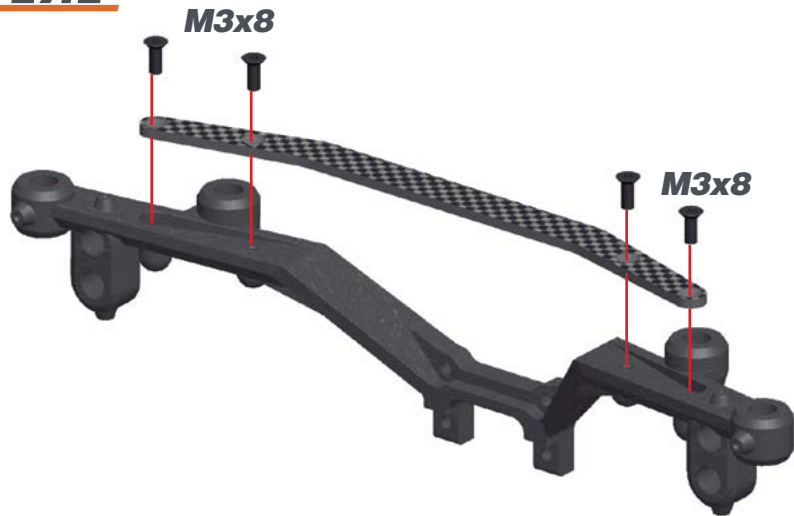
STEP 18

BAG 5

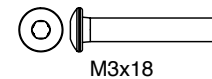
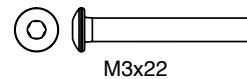
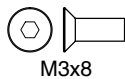
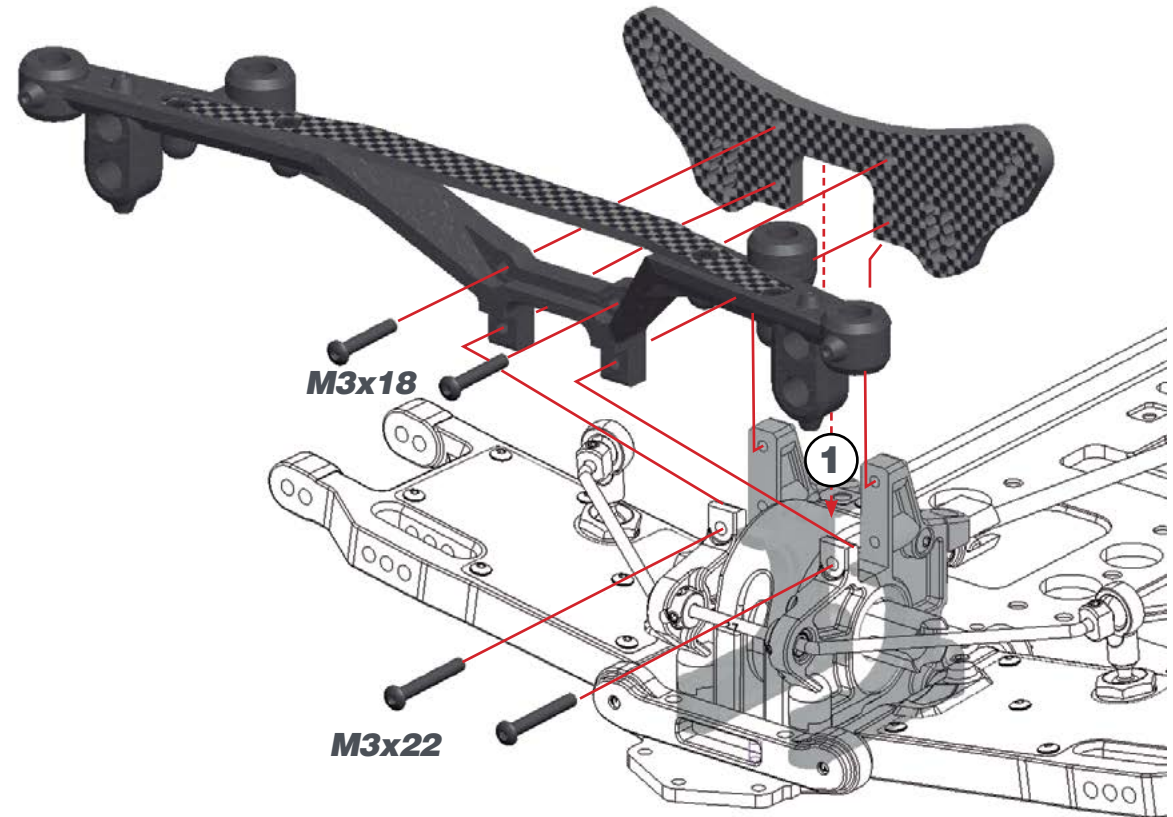


STEP 19

19.1

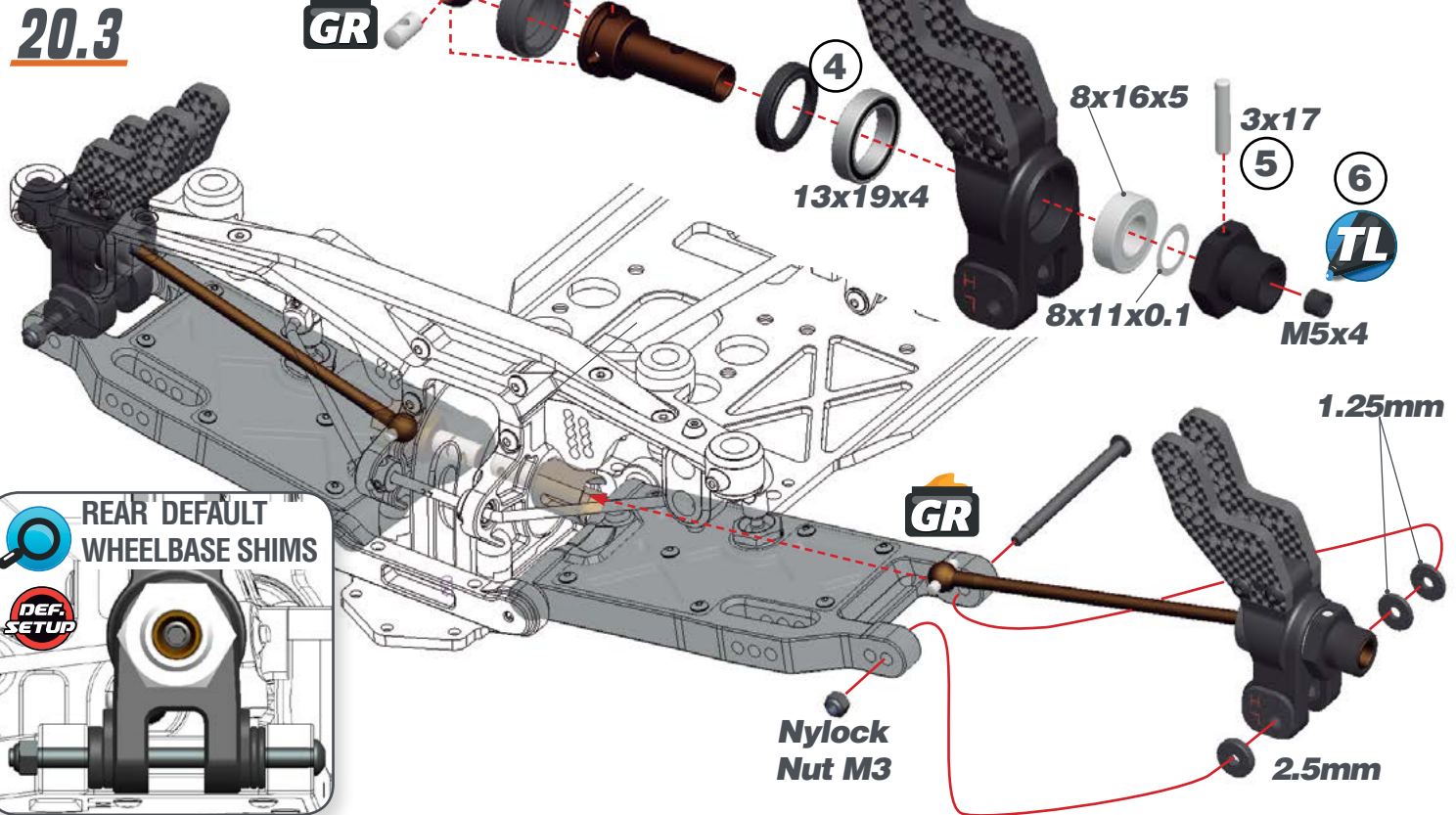
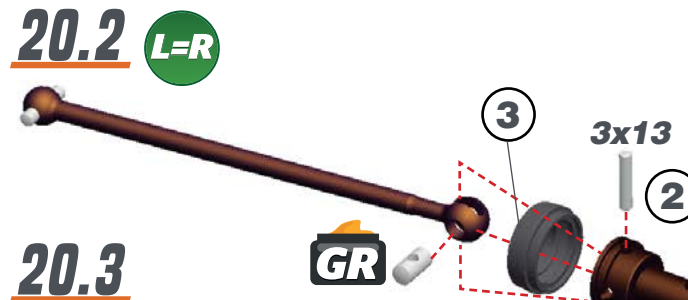


19.2



STEP 20

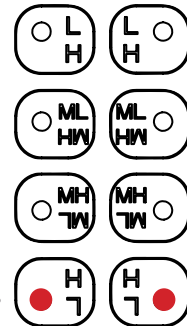
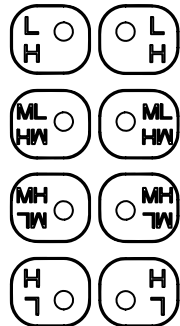
BAG 6



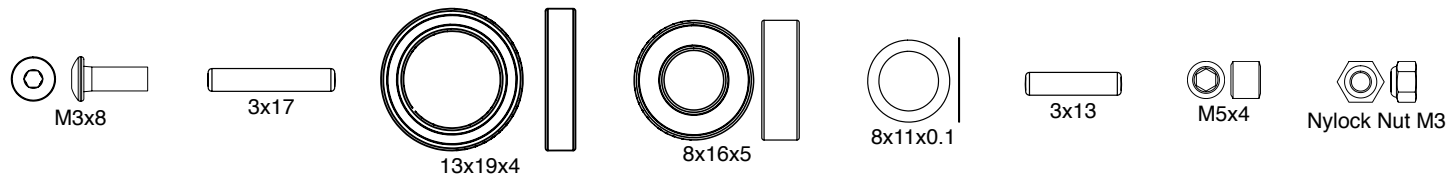
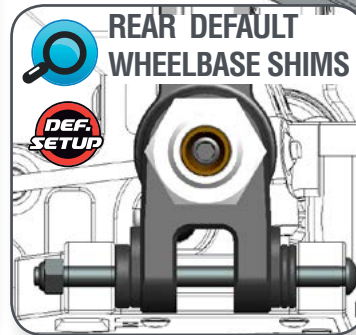
REAR UPRIGHT ROLL CENTER INSERTS CHART

NARROW

WIDE

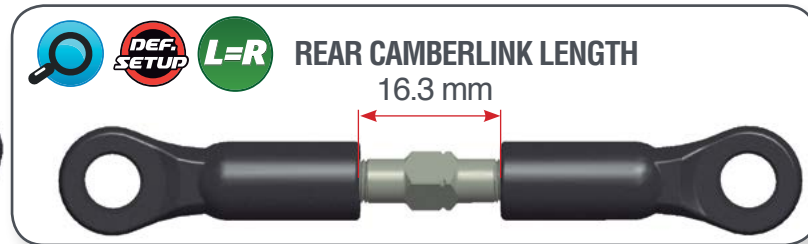


DEF. SETUP

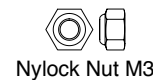
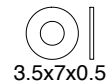
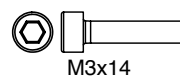
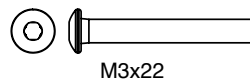
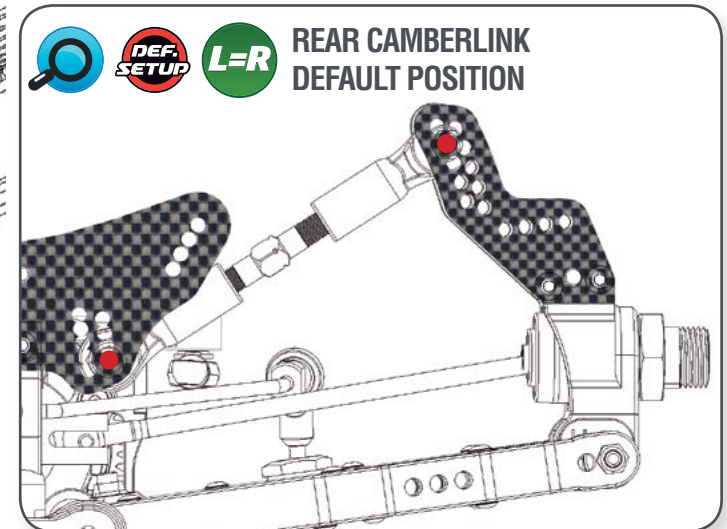
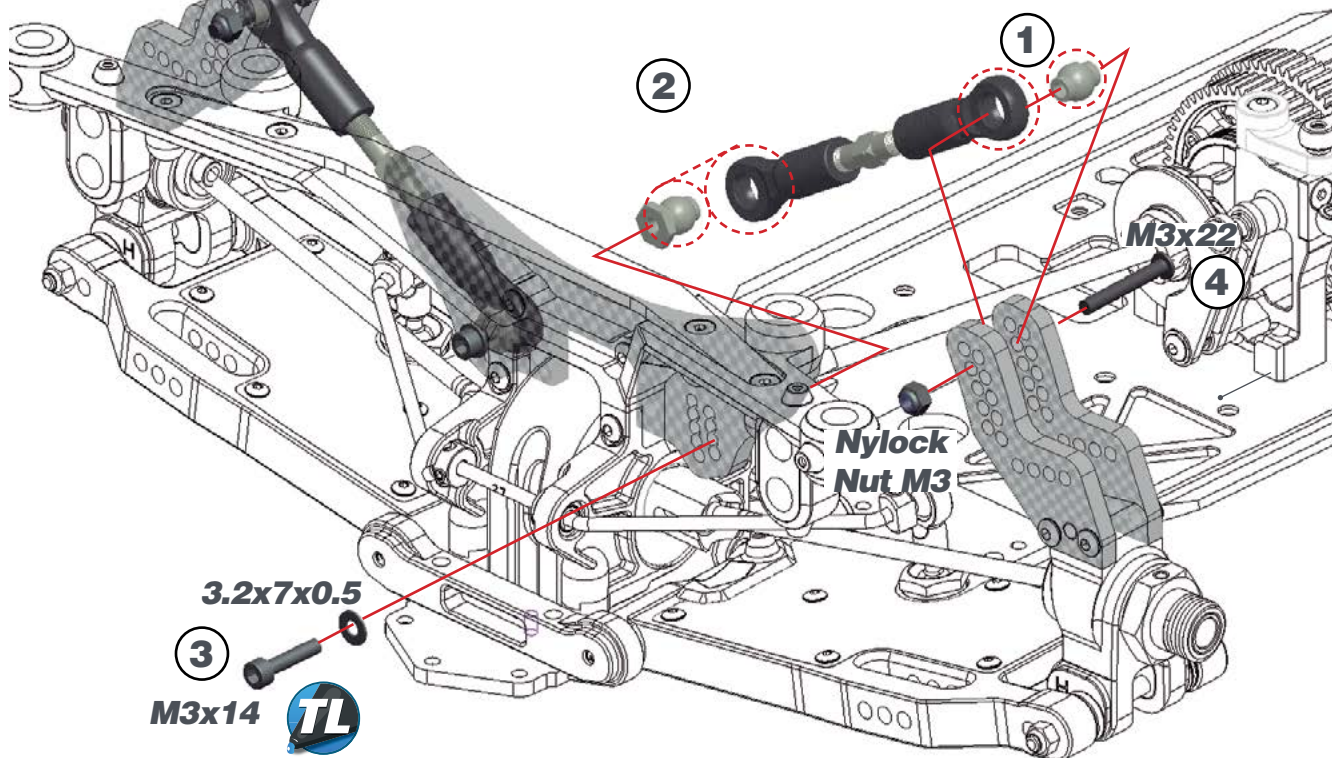


STEP 21

21.1

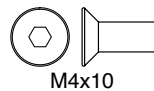
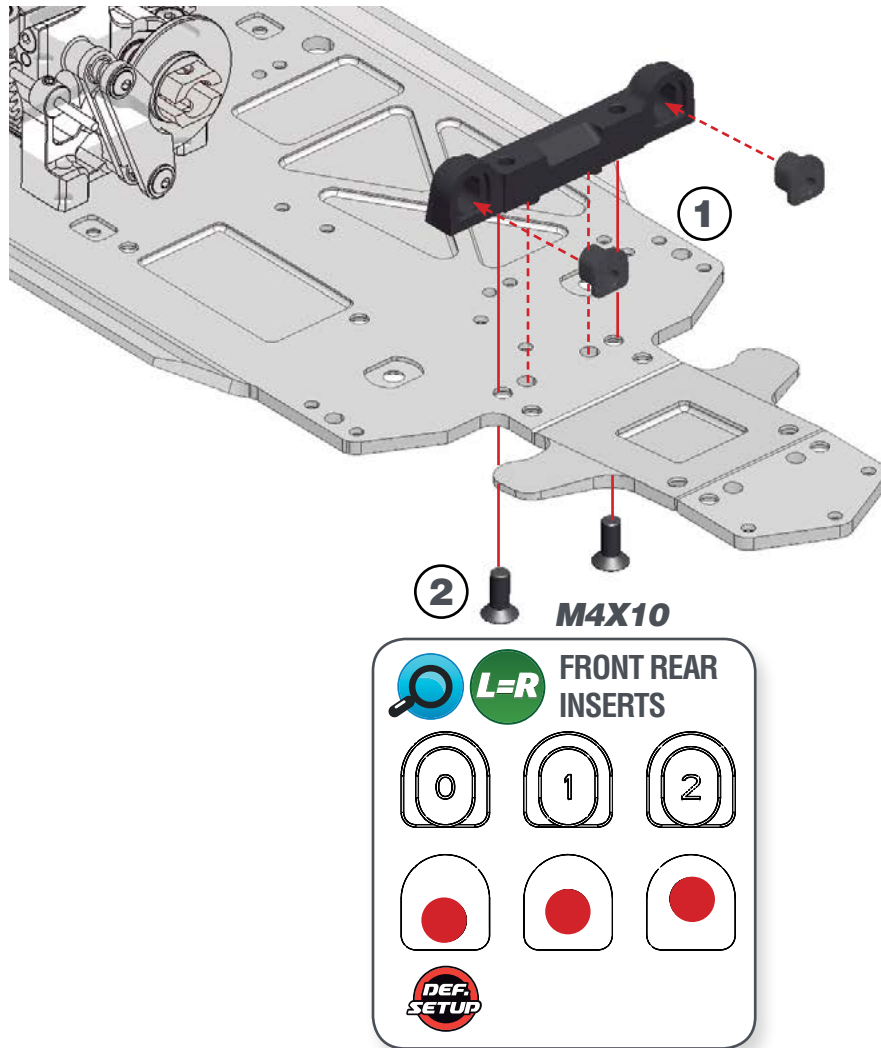


21.2

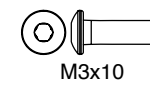
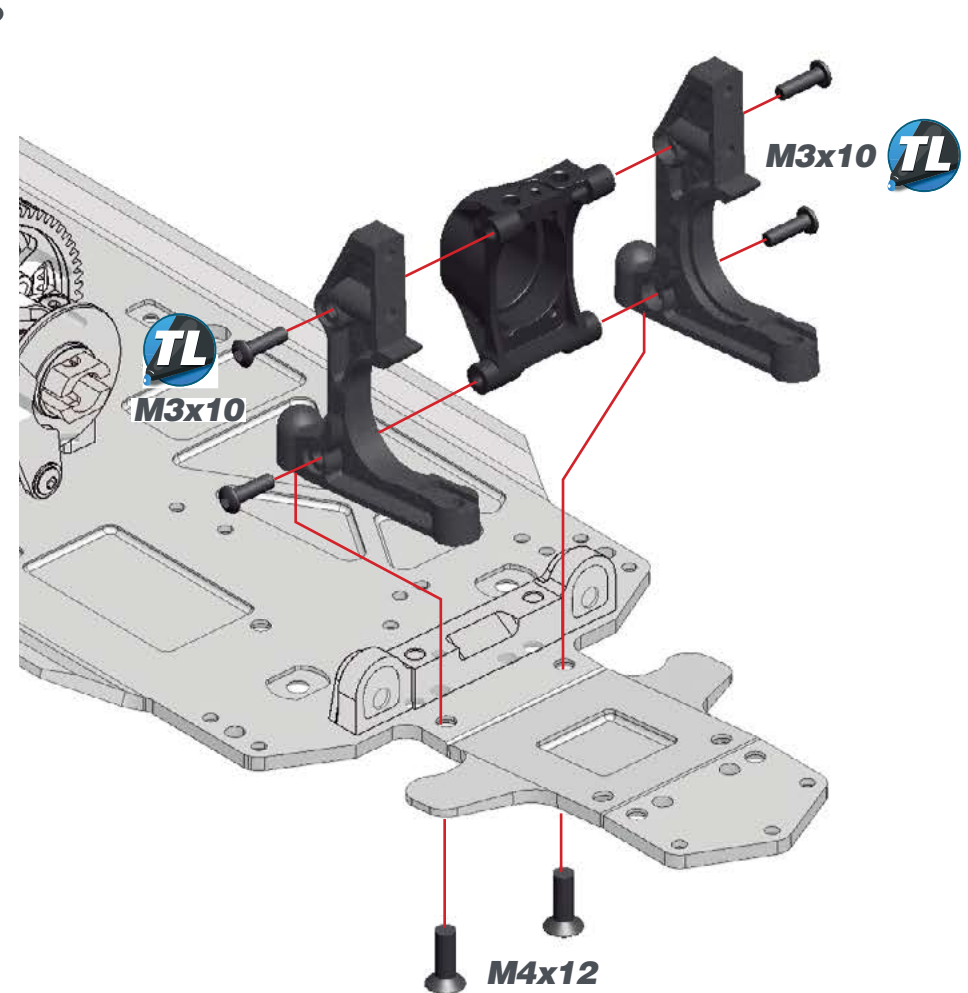


STEP 22

BAG 7

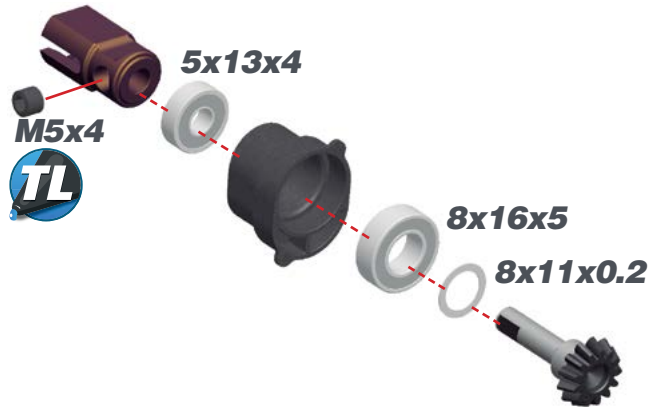


STEP 23



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 8x11x0.2 shims as needed.

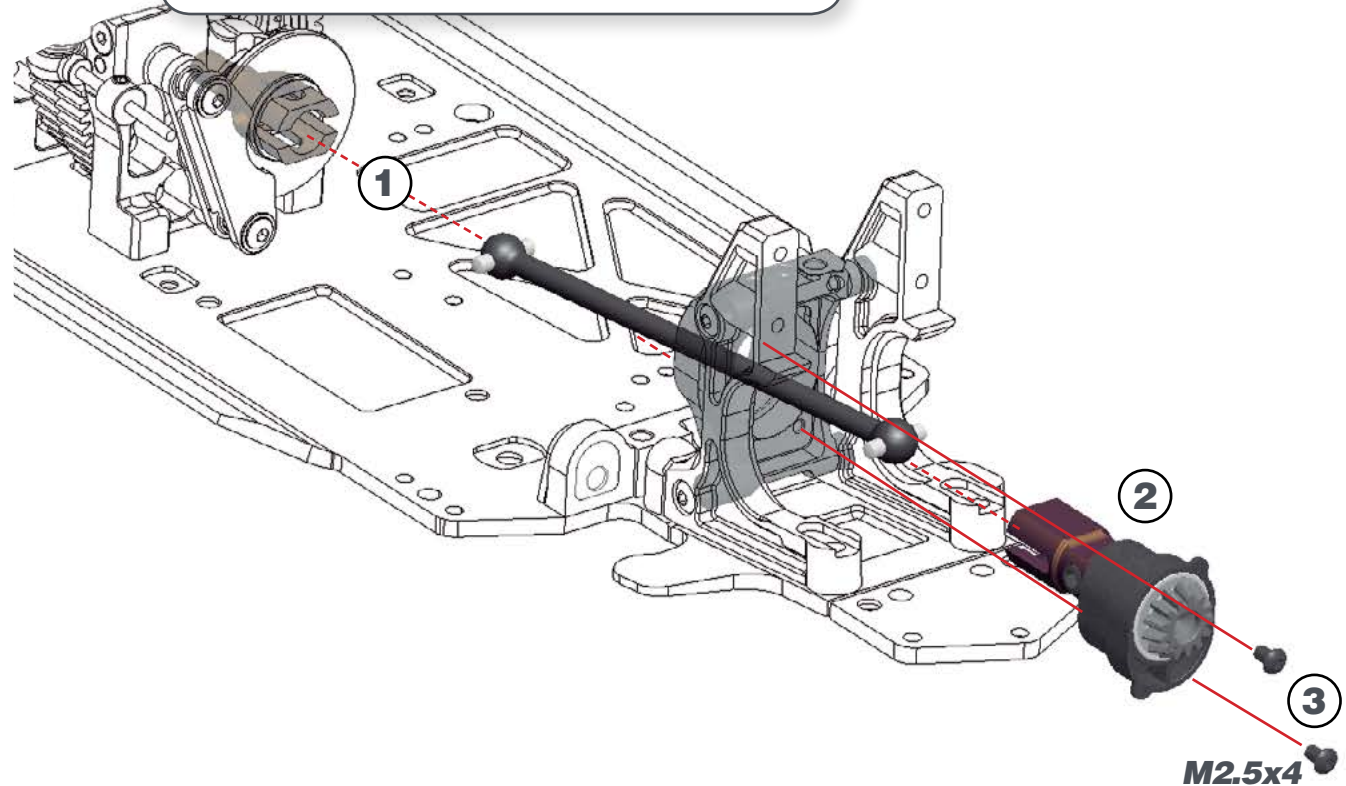
24.2



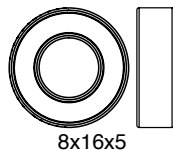
INDRIVE BRACKETS CHART

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

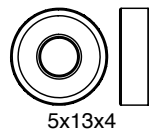
LOW MID LOW MID HIGH HIGH



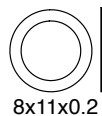
M5x4



8x16x5



5x13x4



8x11x0.2



M2.5x4

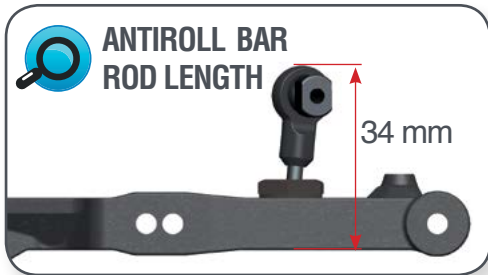
STEP 25

BAG 8

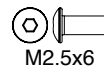
25.1



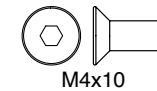
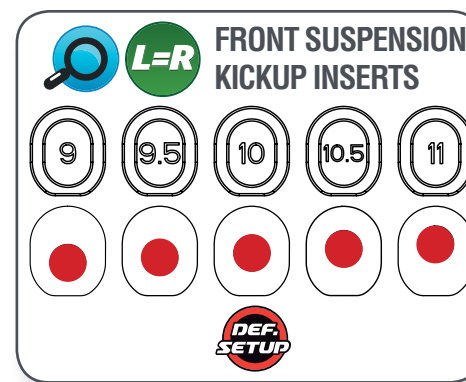
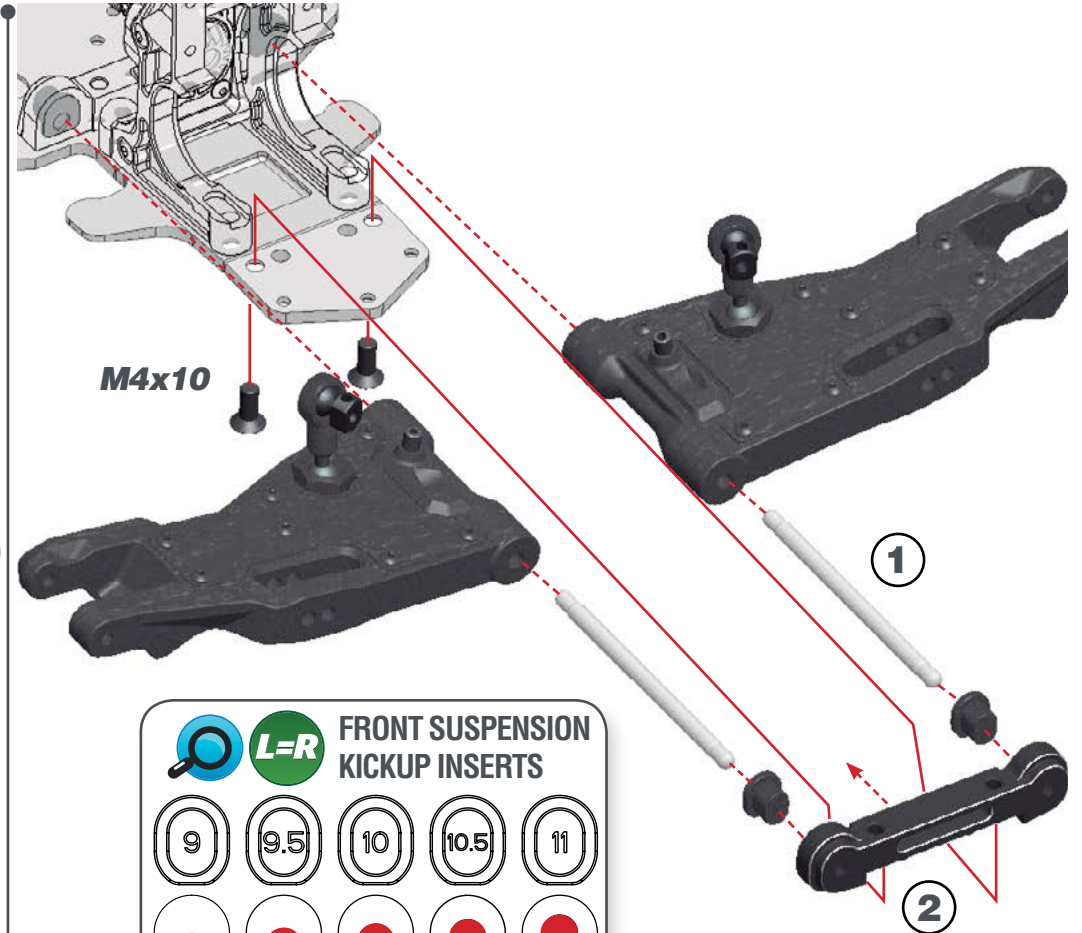
Tighten anti-roll bar cap until there is no play, and it moves freely.



25.2

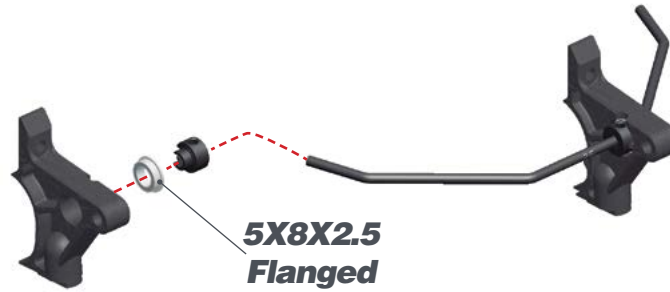


STEP 26

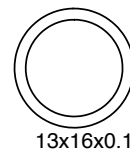
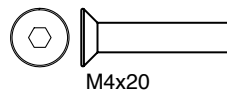
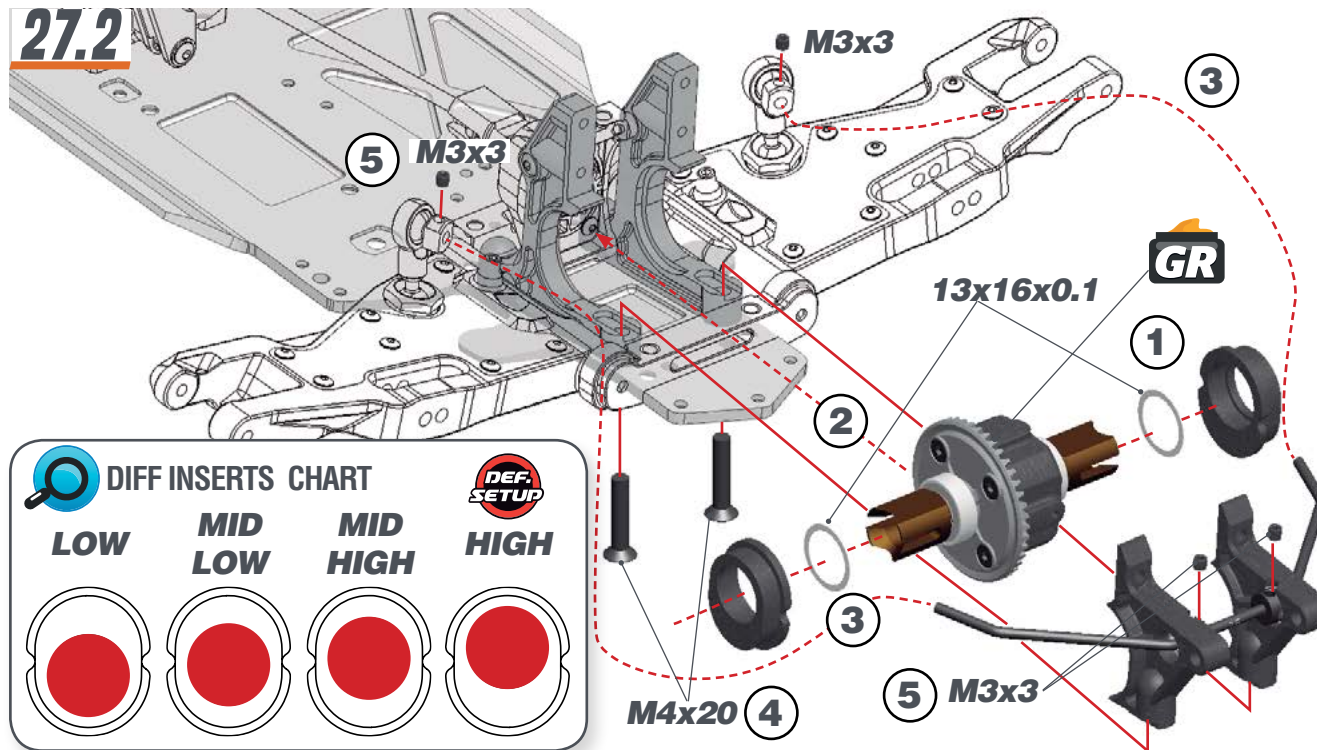


STEP 27

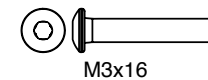
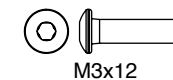
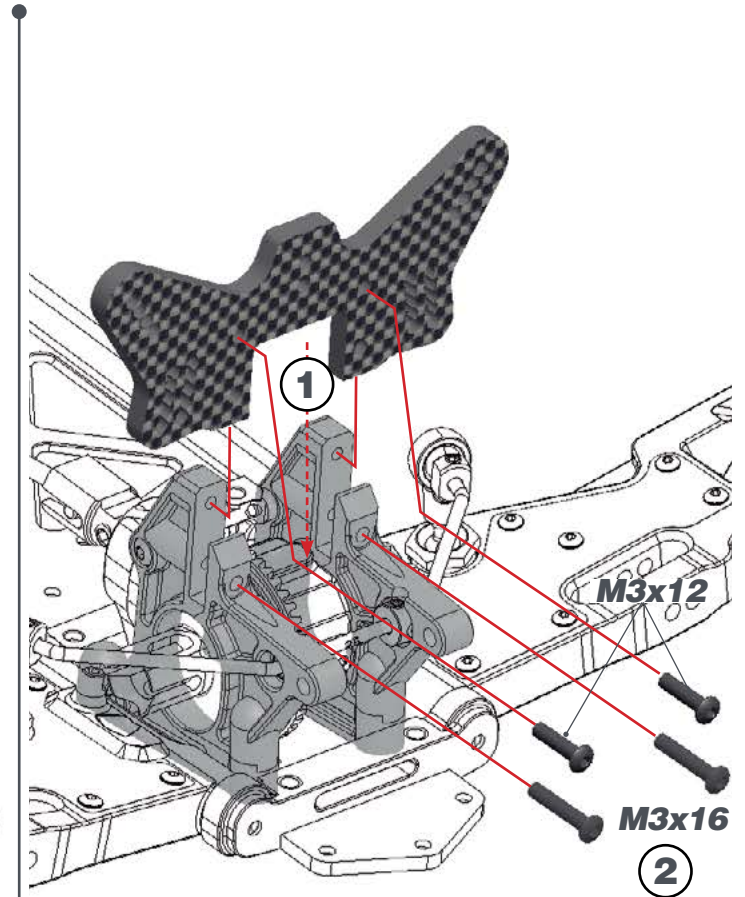
27.1



27.2



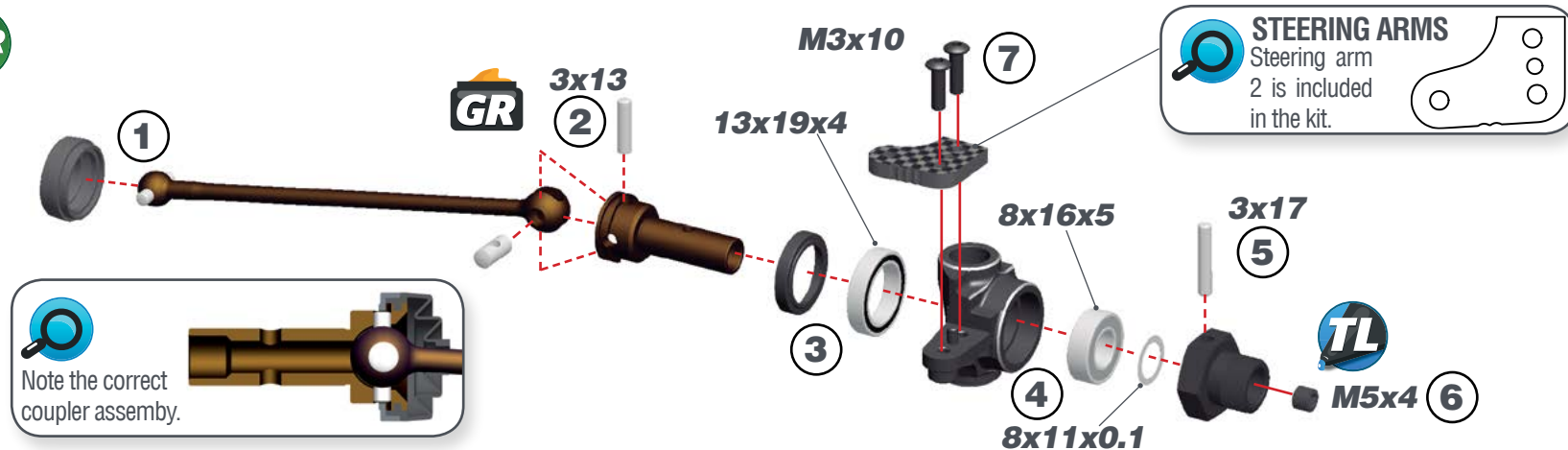
STEP 28



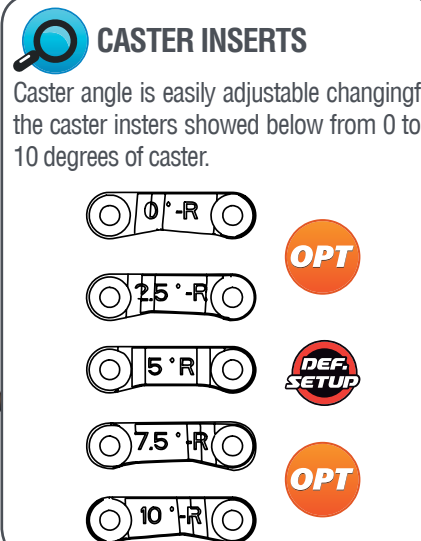
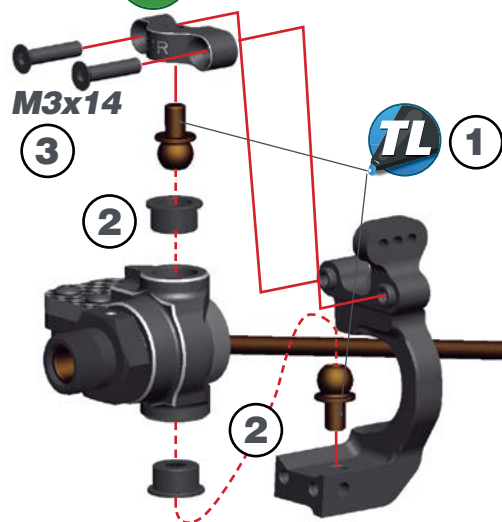
STEP 29

BAG 9

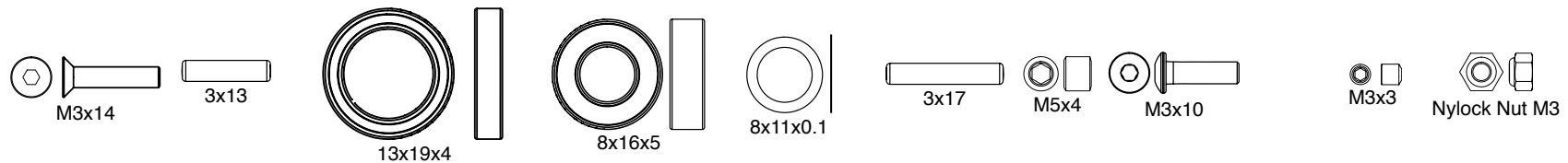
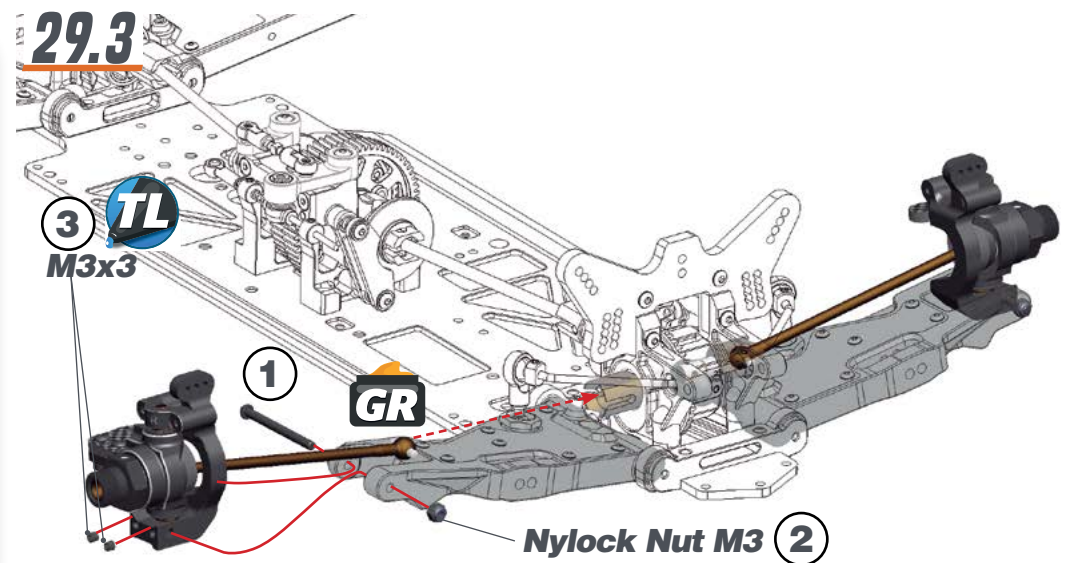
29.1 L=R



29.2 L=R

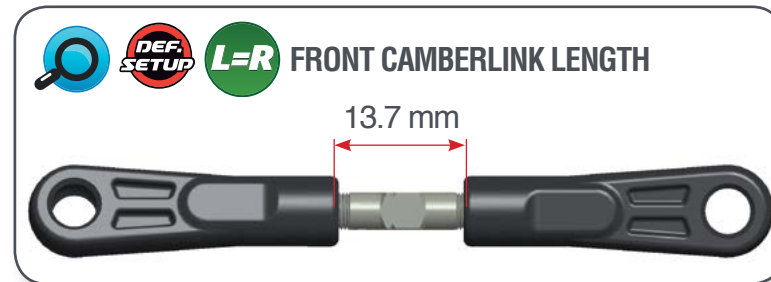


29.3

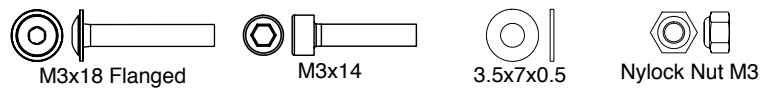
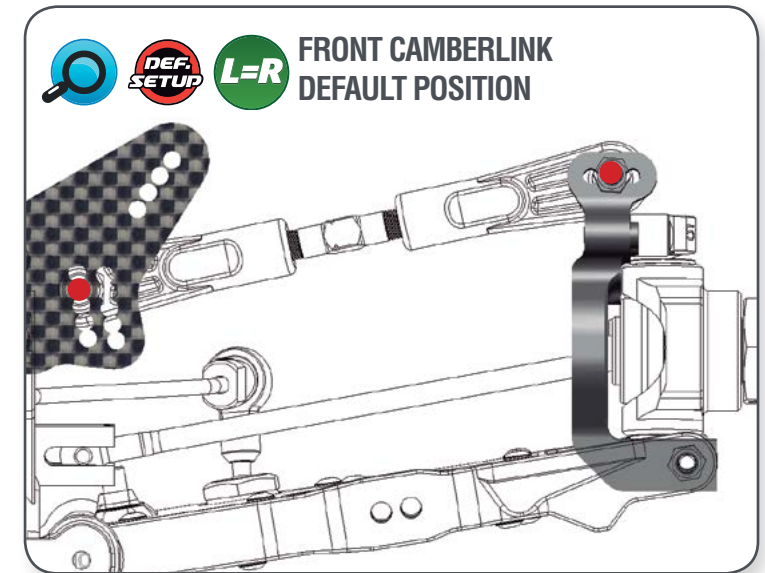
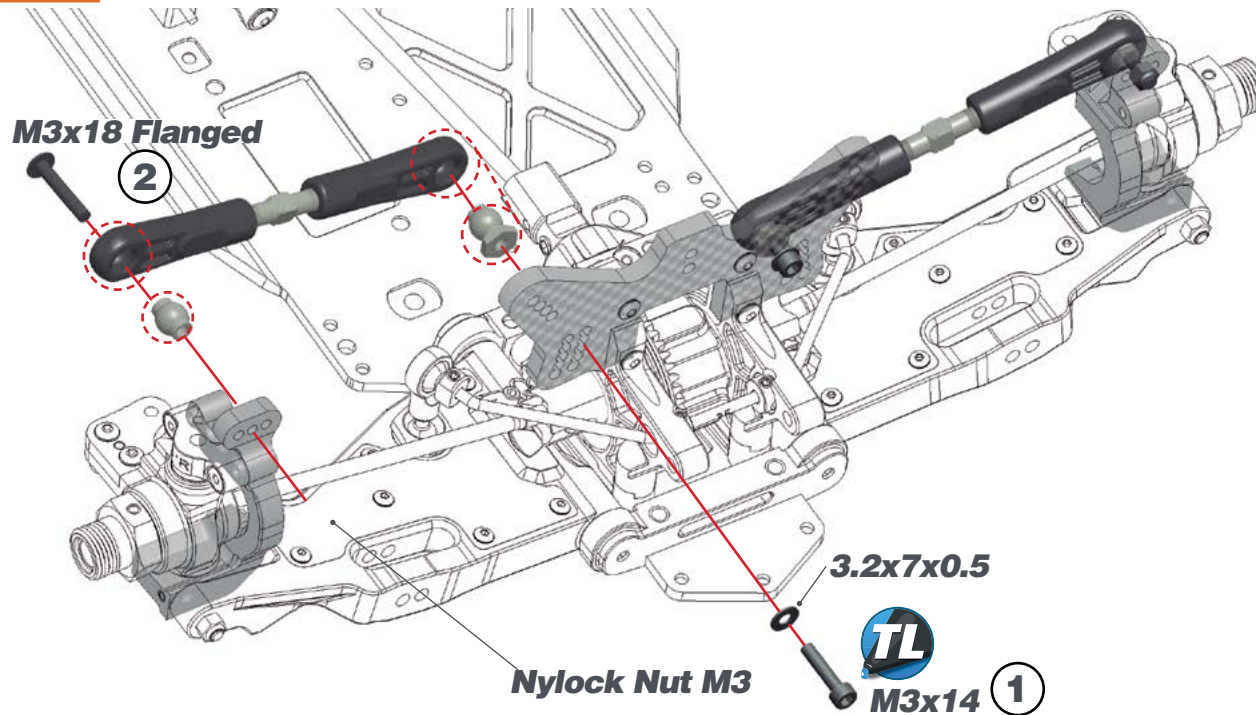


STEP 30

30.1



30.2



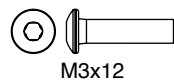
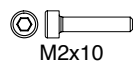
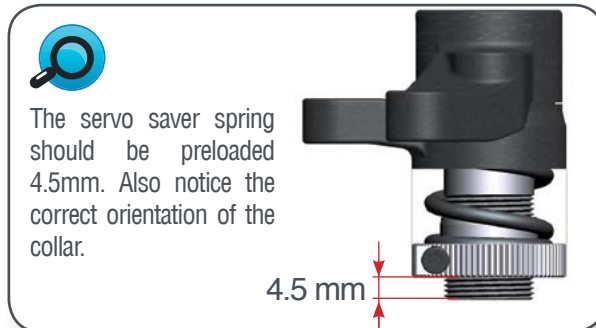
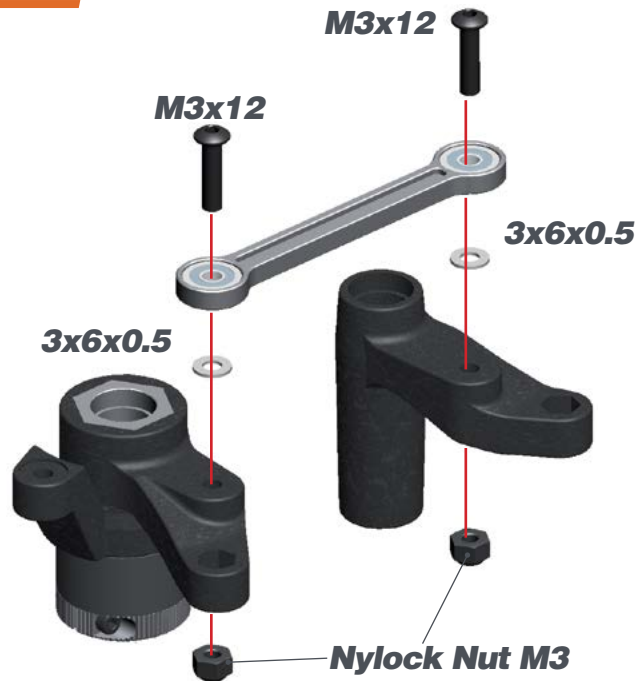
STEP 31

BAG 10

31.1



31.2



STEP 32

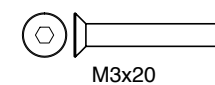
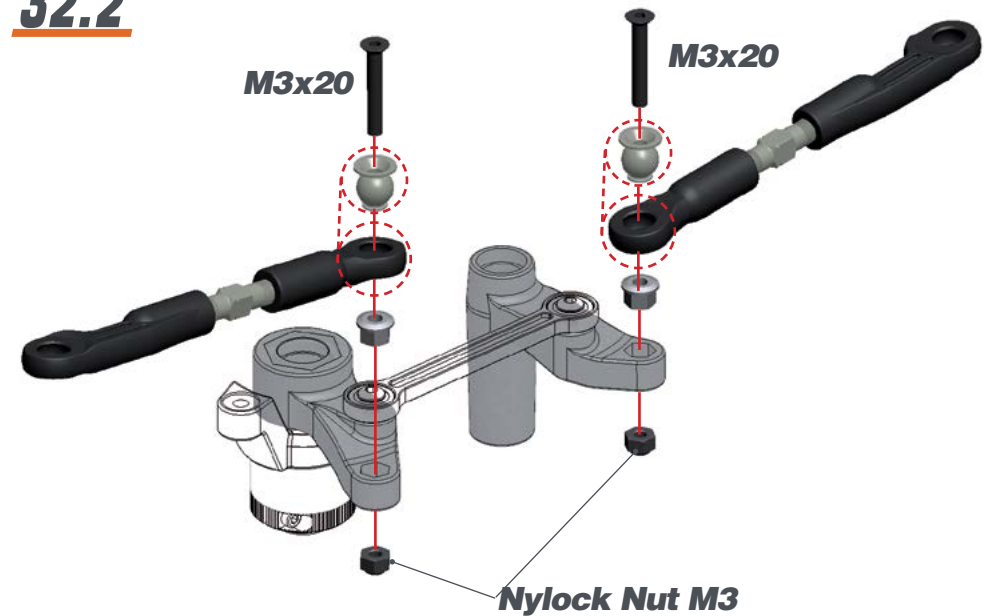
32.1



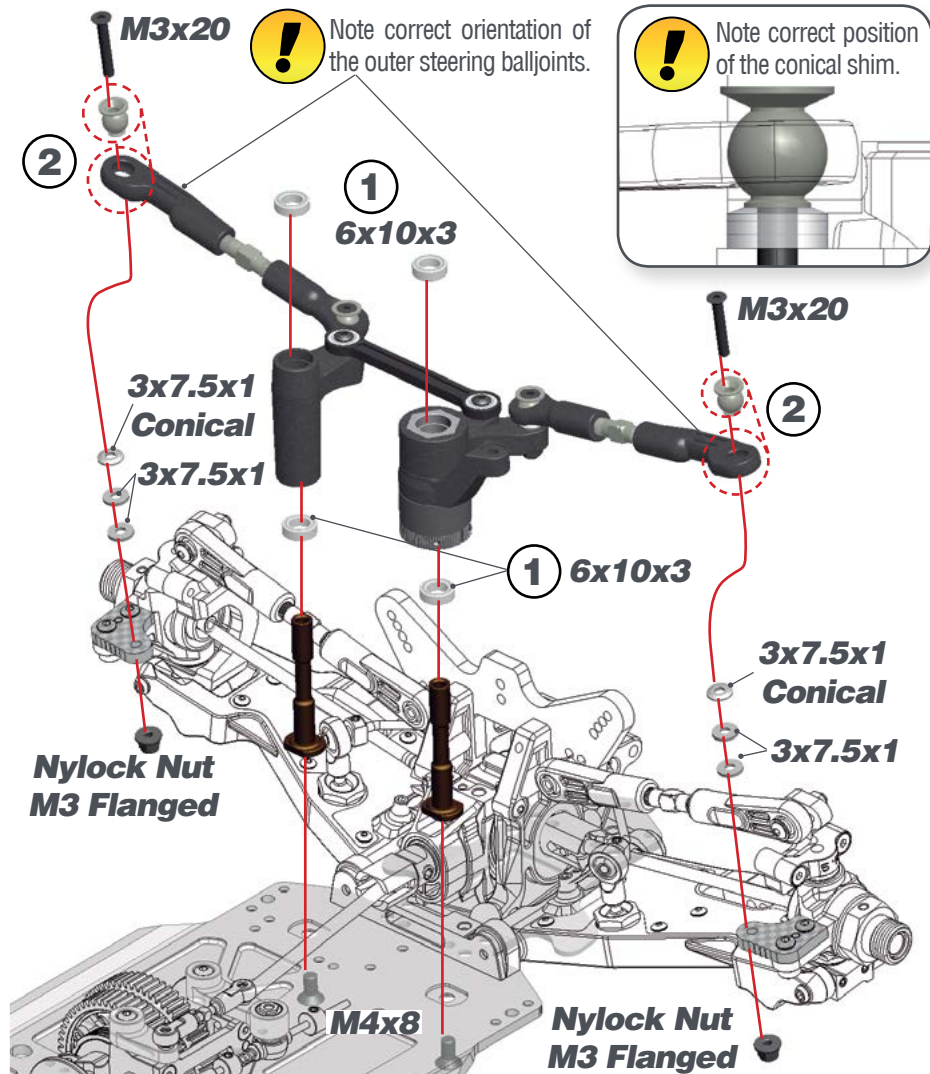
STEERING TRACKROD LENGTH



32.2

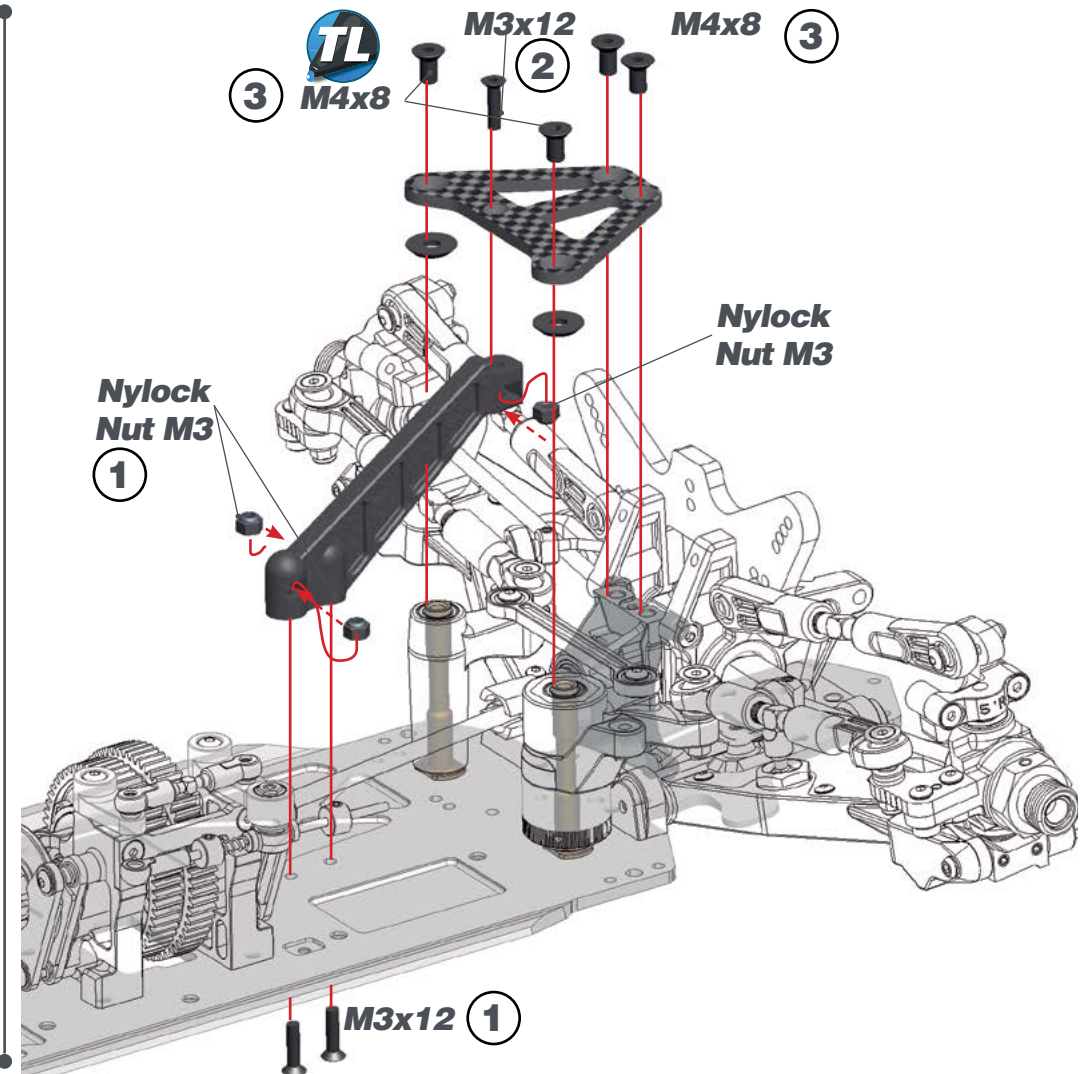


STEP 33

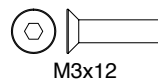
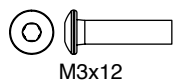
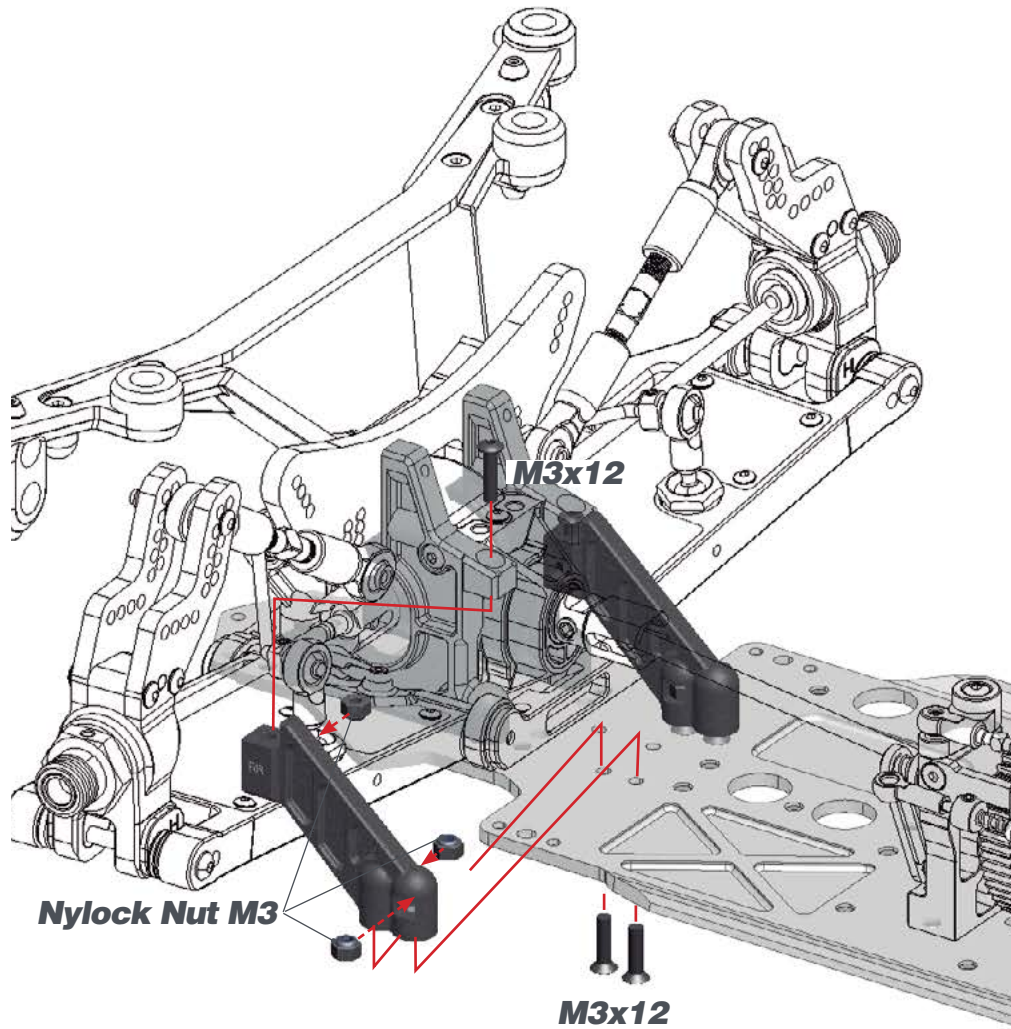


STEP 34

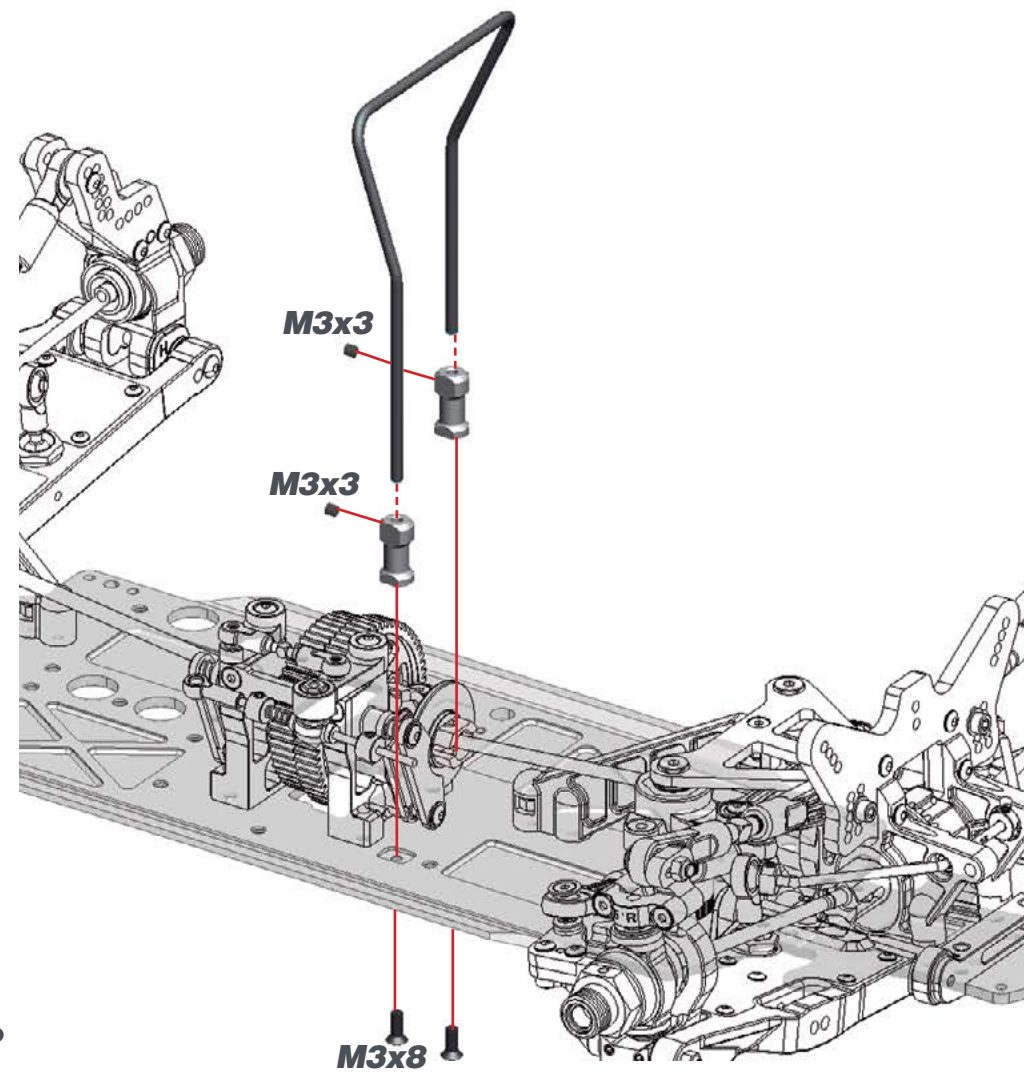
BAG 11



STEP 35

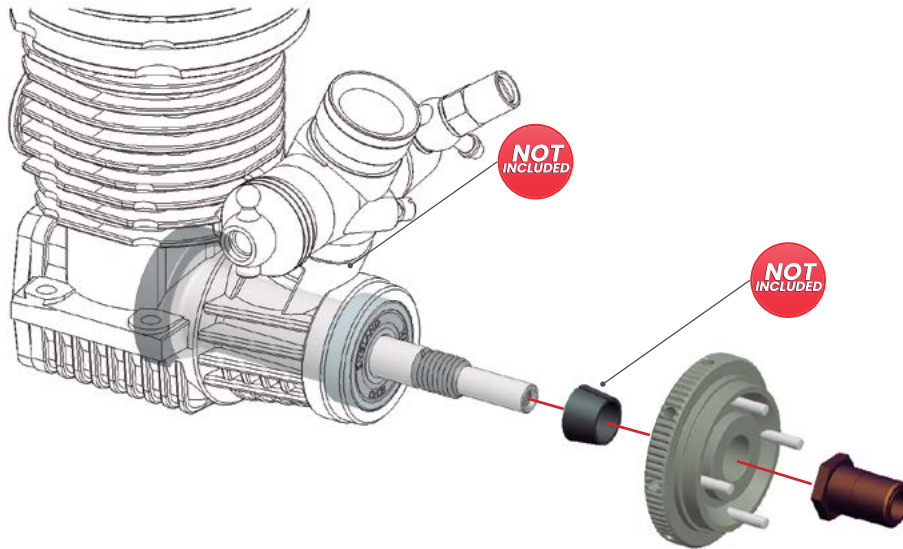


STEP 36



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.

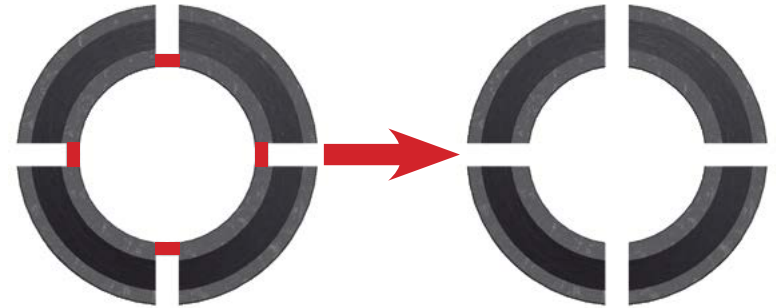
2- The holes in the side of the flywheel can be used to block the flywheel (with short allen tool) through the bottom of the chassis, when the engine/clutch is mounted in the car. It's easier to tighten or loosen the pre-load on the clutch spring that way.

STEP 38

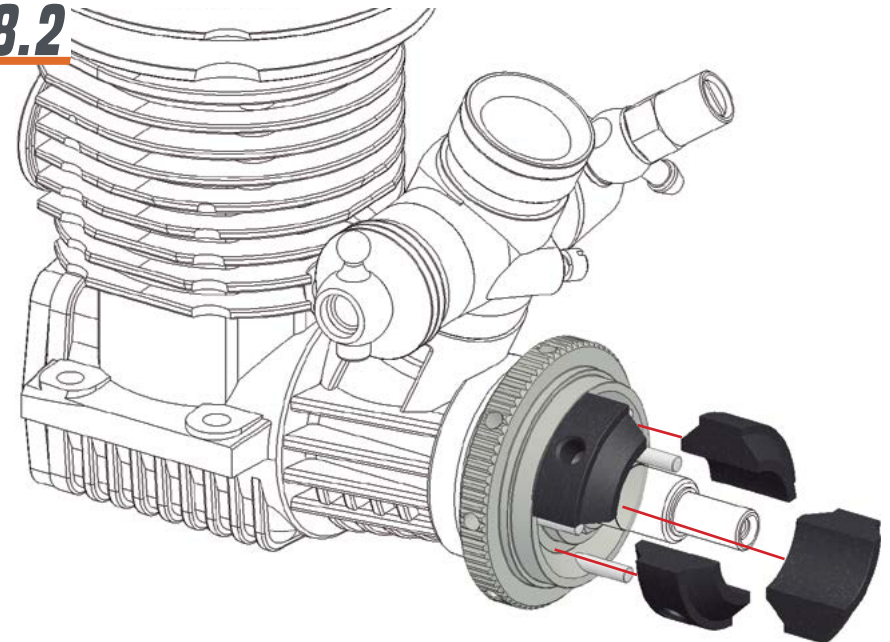
38.1



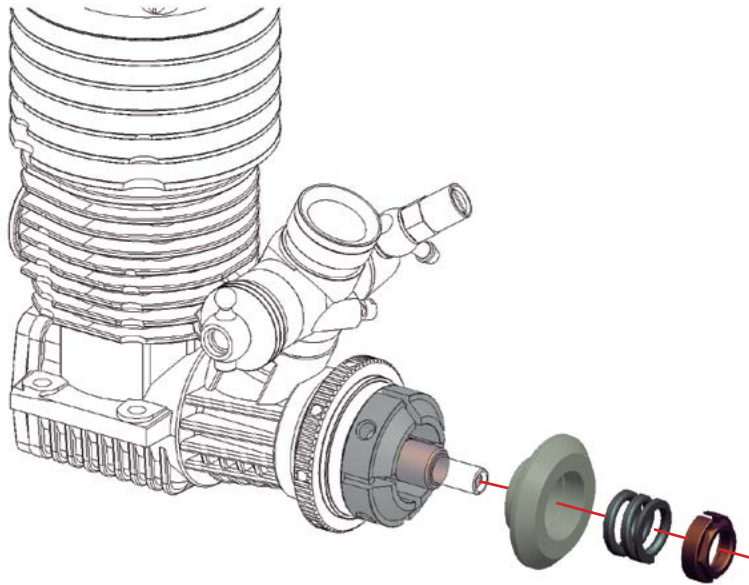
Before to assemble clutch shoes, carefully remove the red area and smoothen the cut surface in order to have four clutch shoes with the same shape.



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



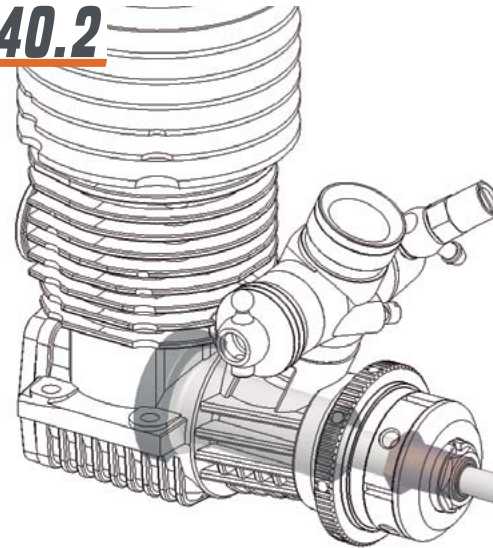
Note the orientation of the gears



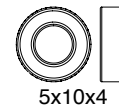
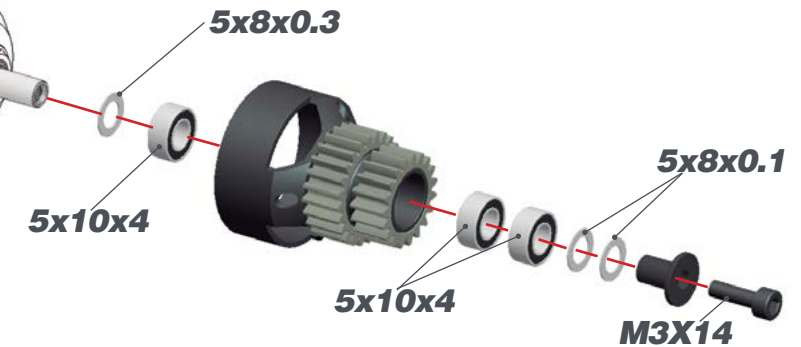
2ND

1ST

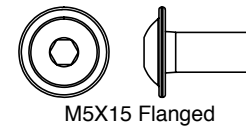
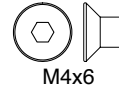
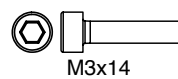
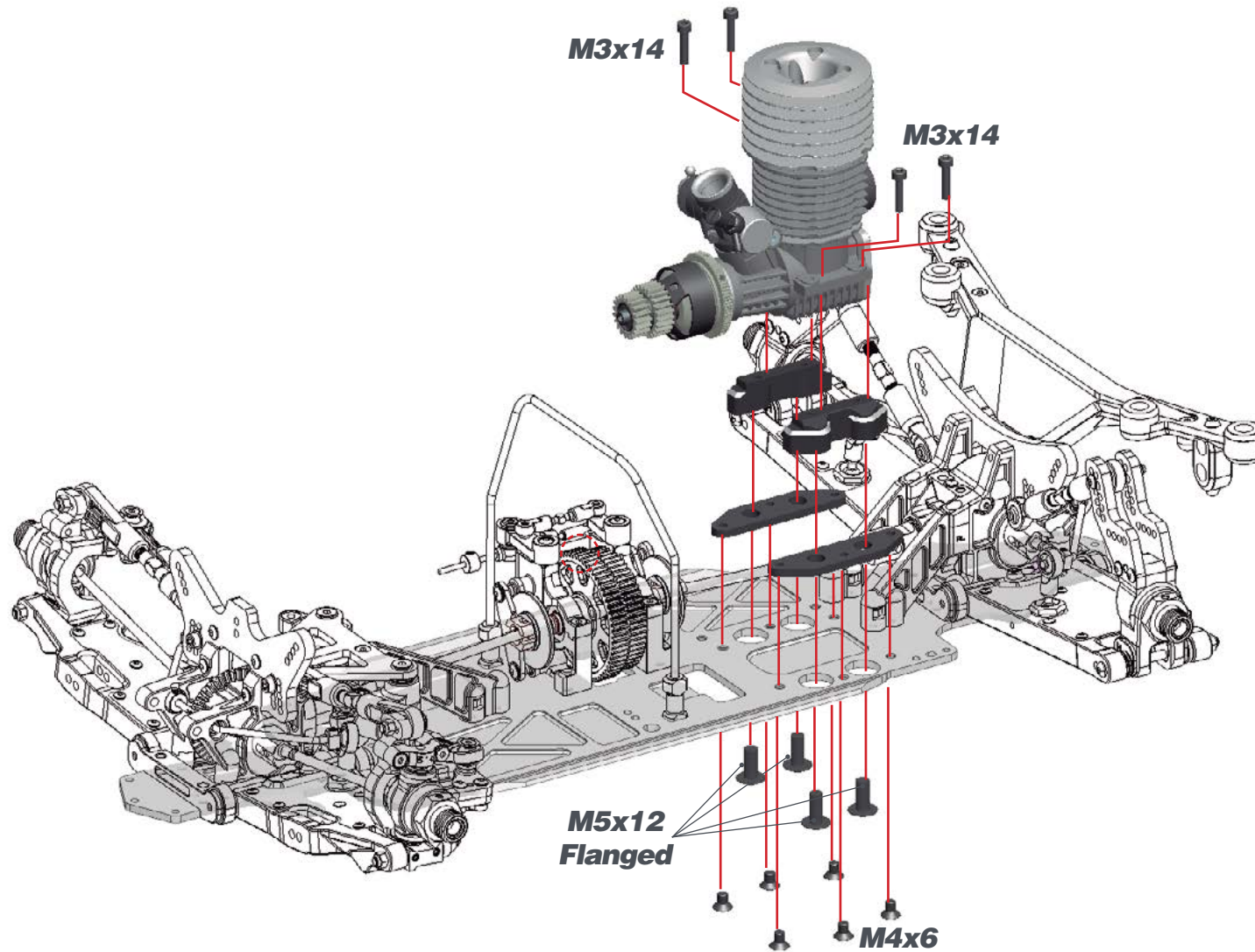
40.2



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



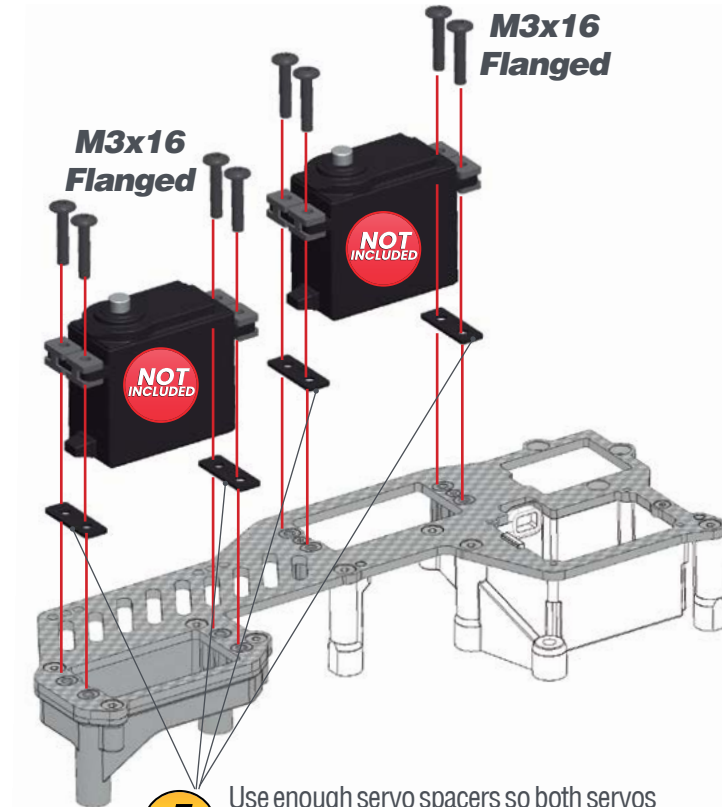
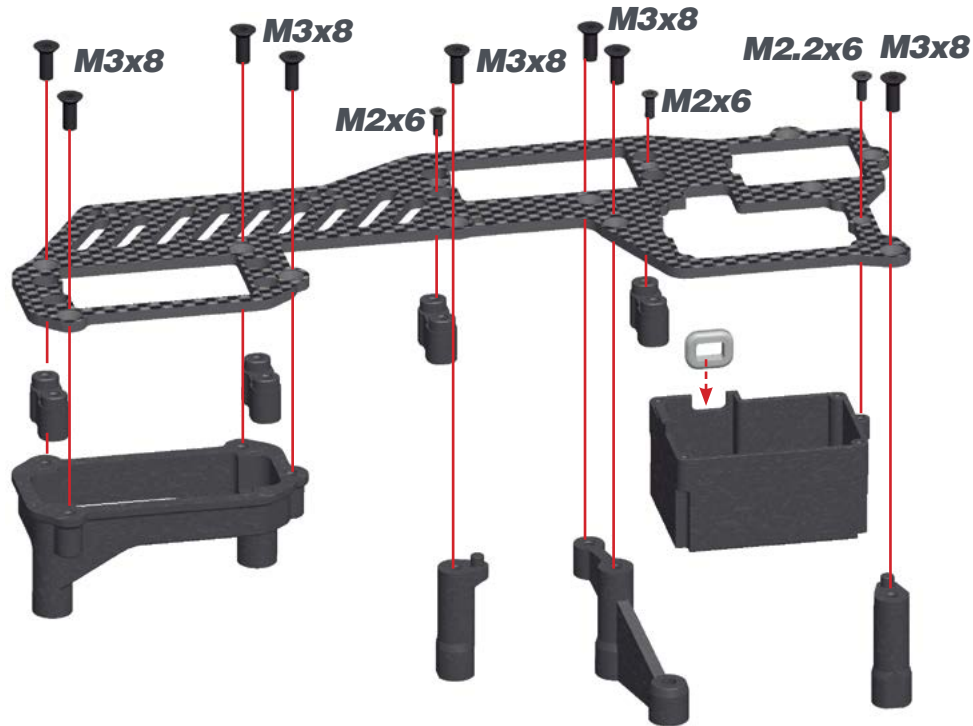
STEP 41



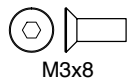
STEP 42

BAG 13

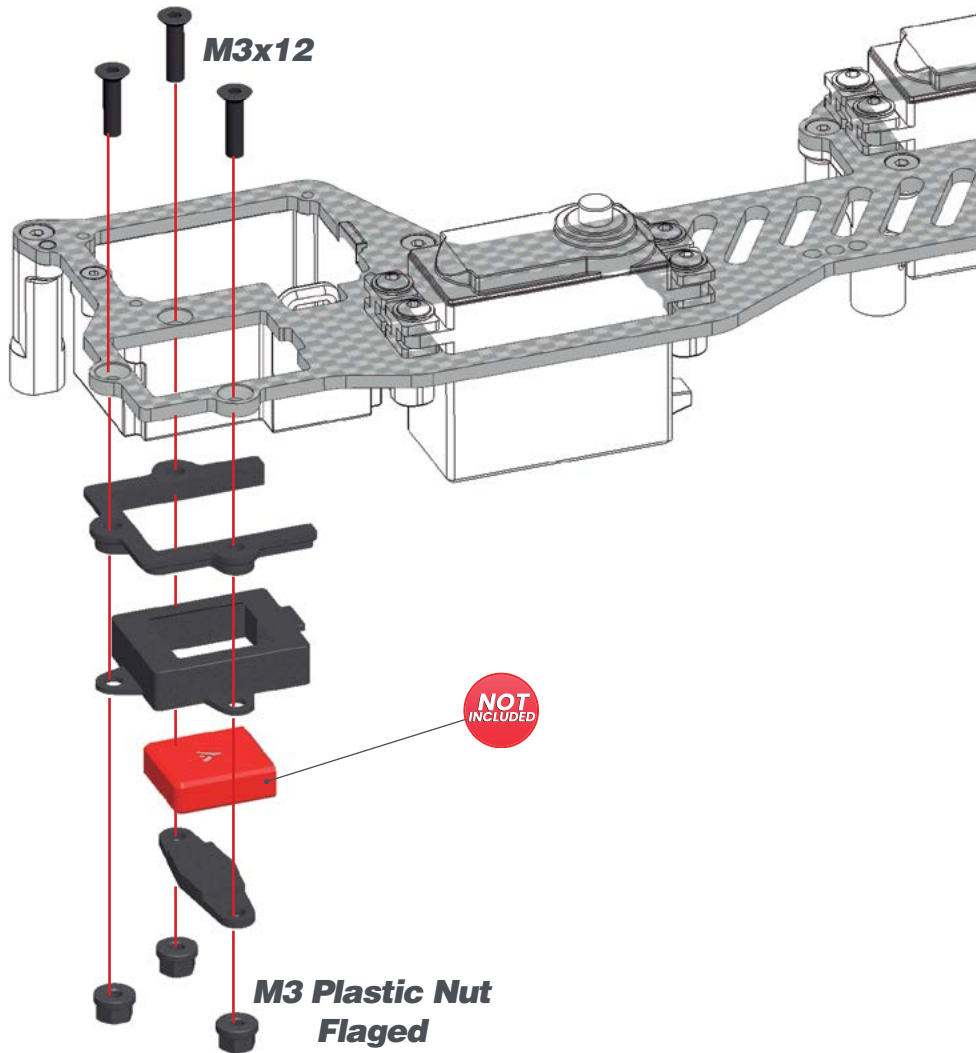
STEP 43



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.

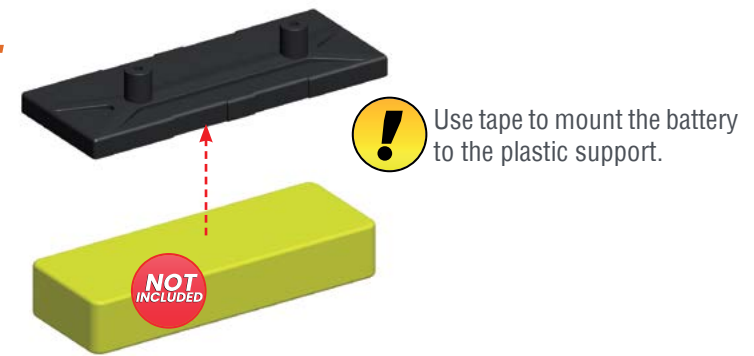


STEP 44

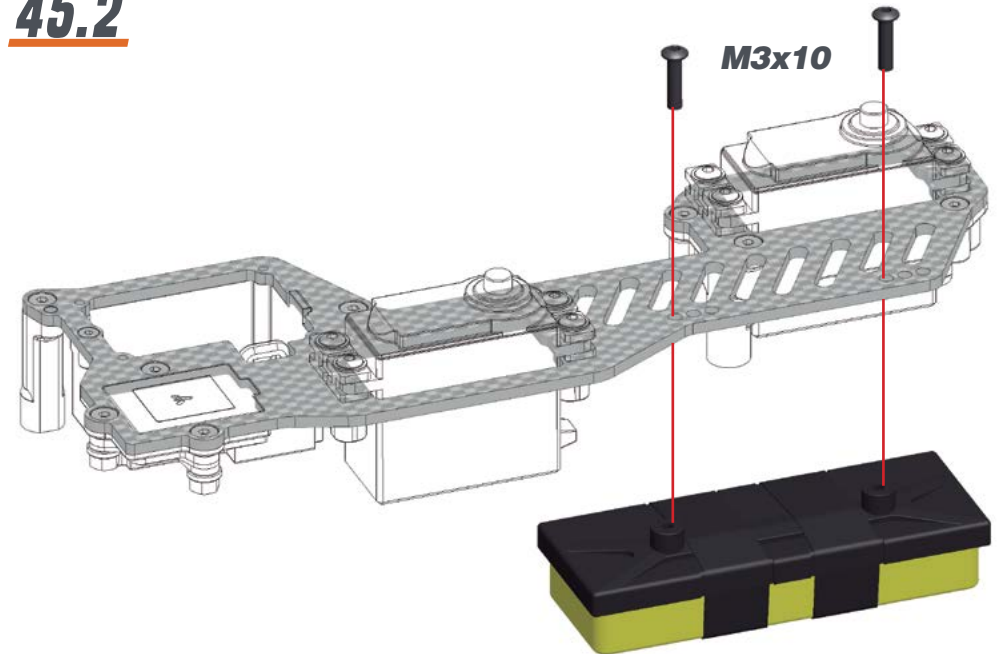


STEP 45

45.1



45.2

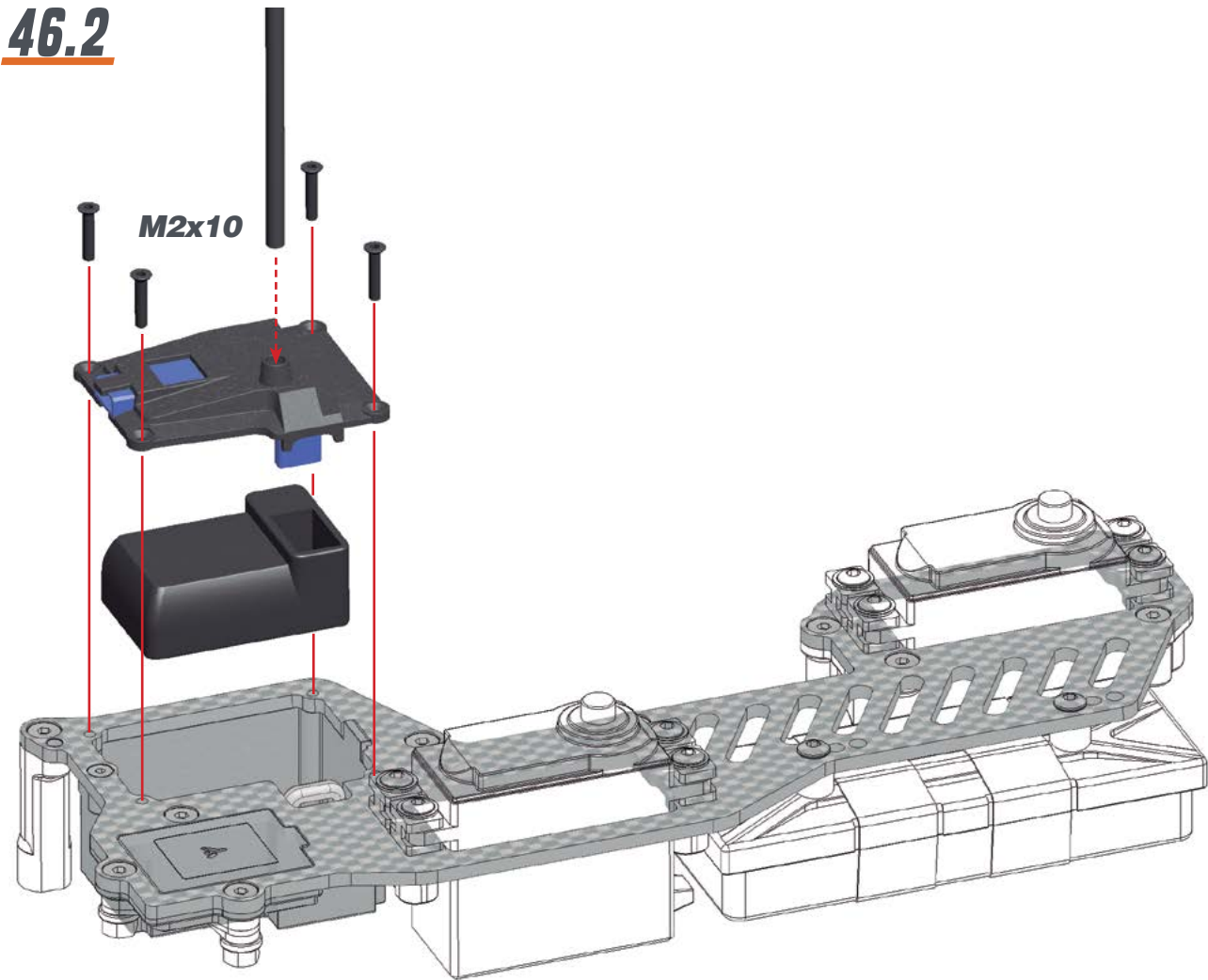


STEP 46

46.1

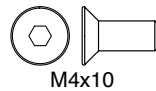
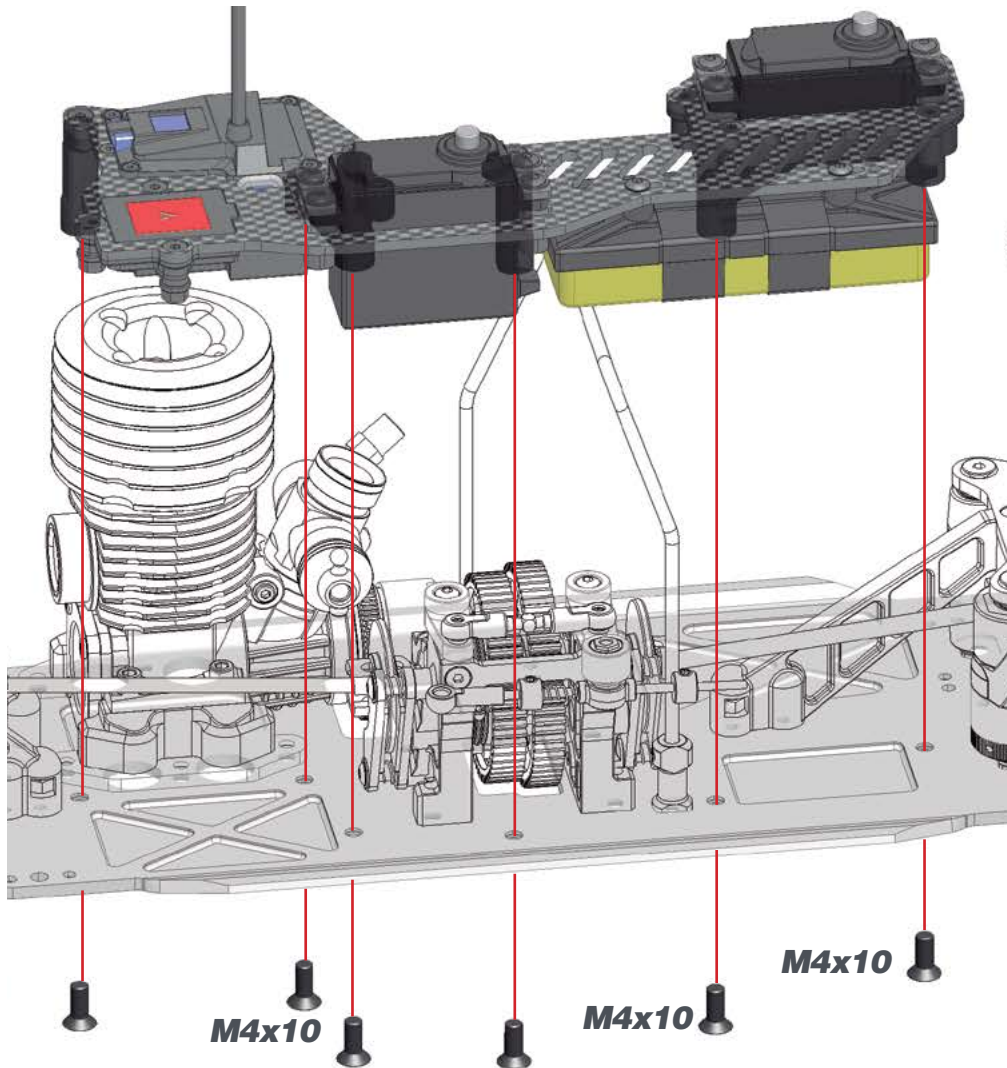


46.2



M2x10

STEP 47



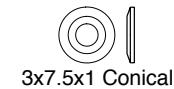
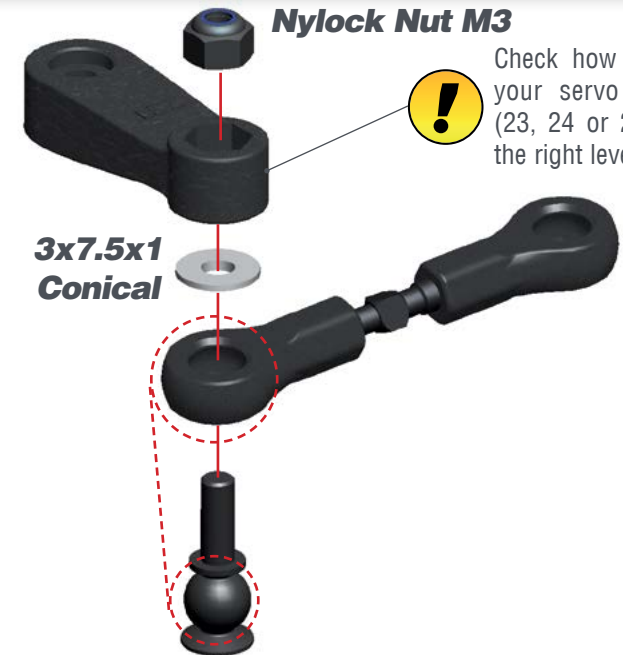
STEP 48



STEERING LINK LENGTH

Between different servo brands there could be slight differences.

6.5 - 7 mm



STEP 50

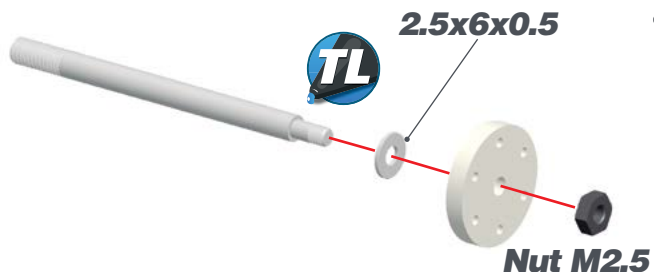
49.2



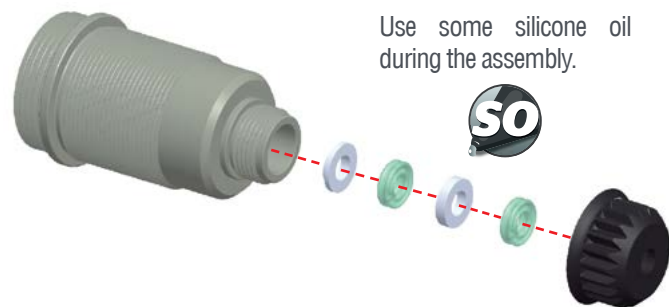
STEP 51

SHOCK BAG

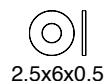
51.1



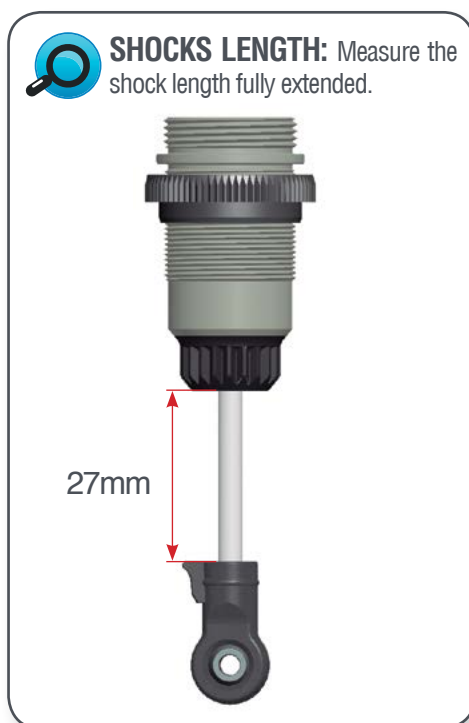
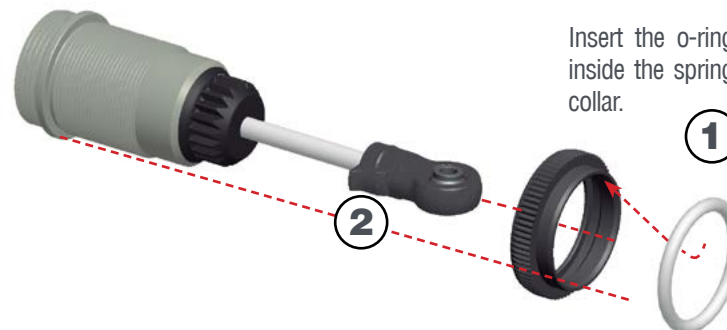
51.2



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

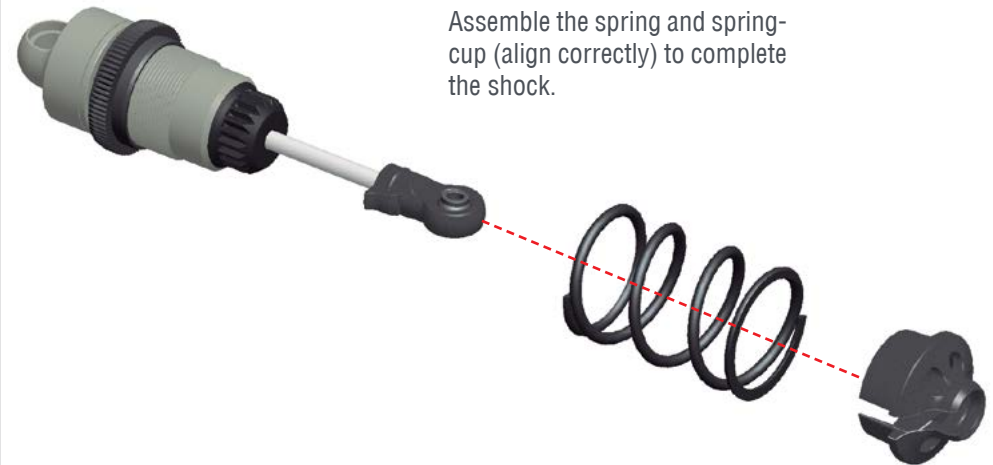
1-Bleed: push the shock-rod all the way in slowly, to allow excessive oil to escape.

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



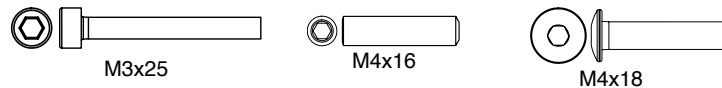
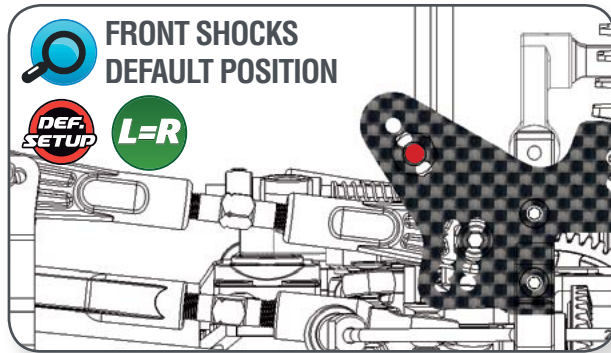
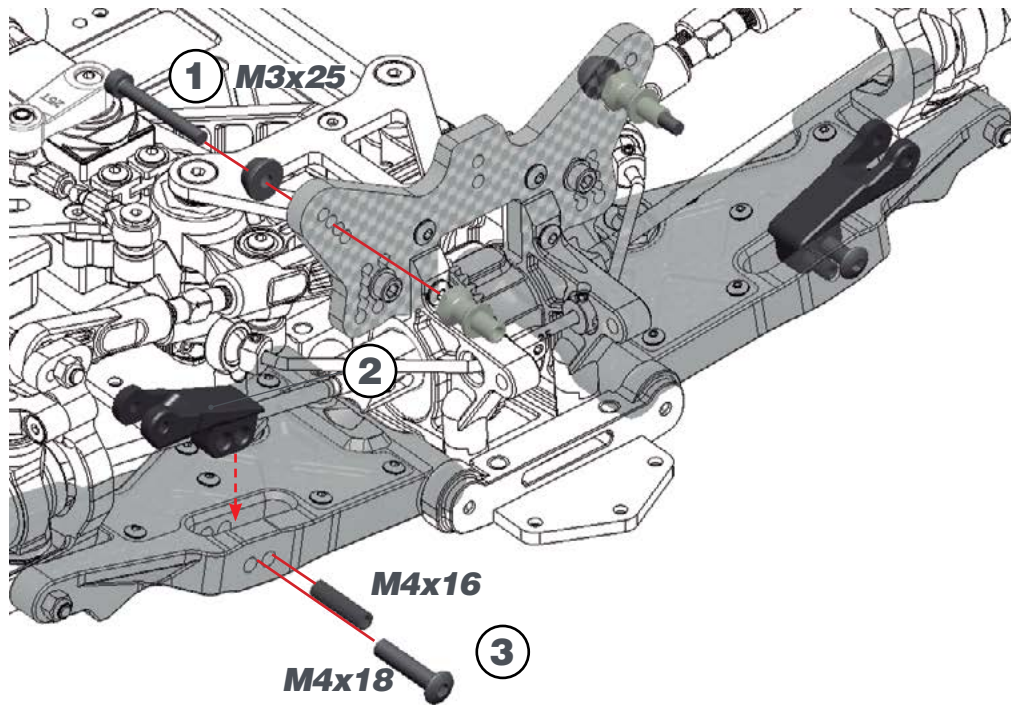
STEP 56

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

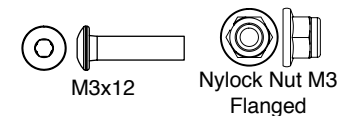
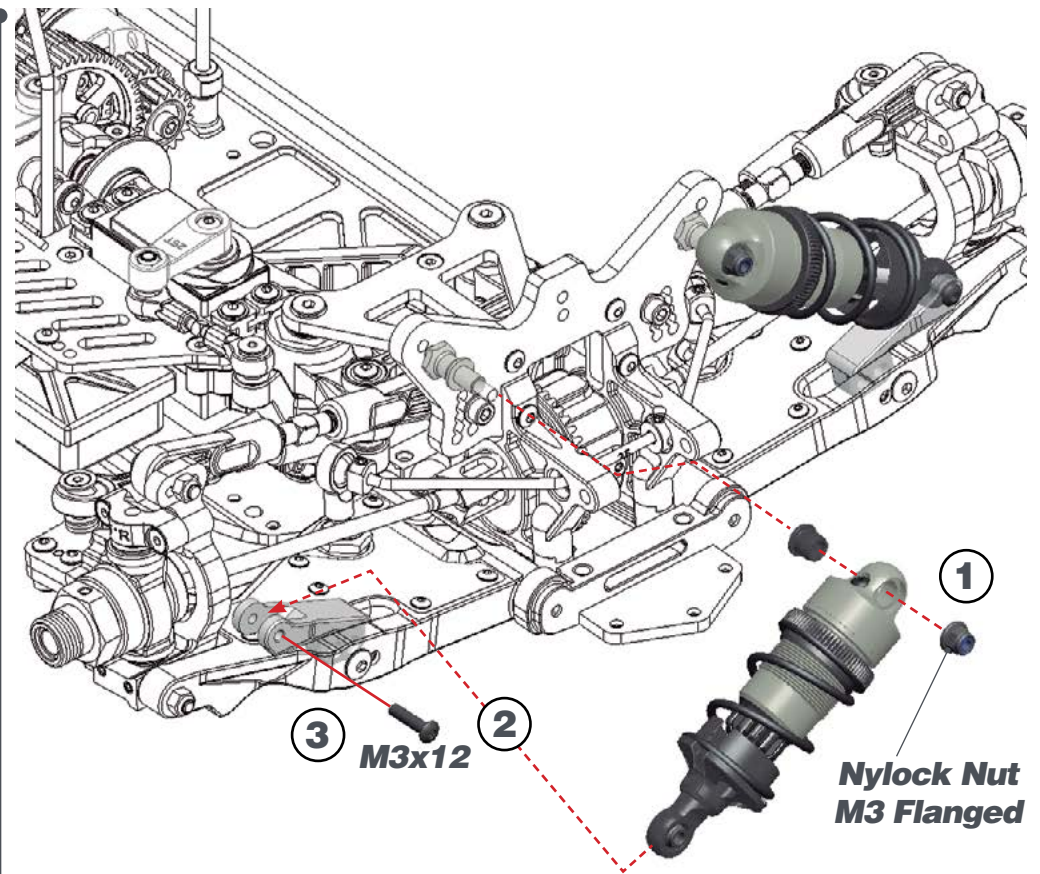


M2.3x4

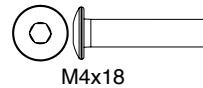
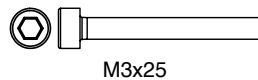
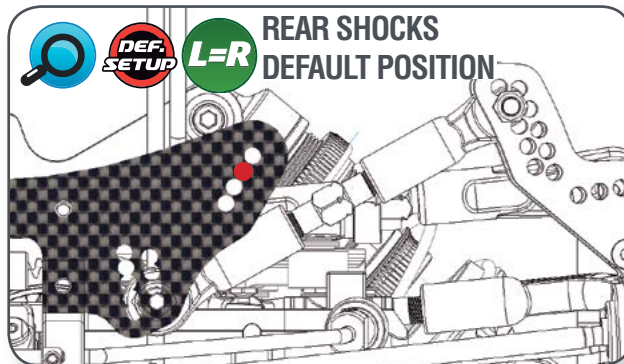
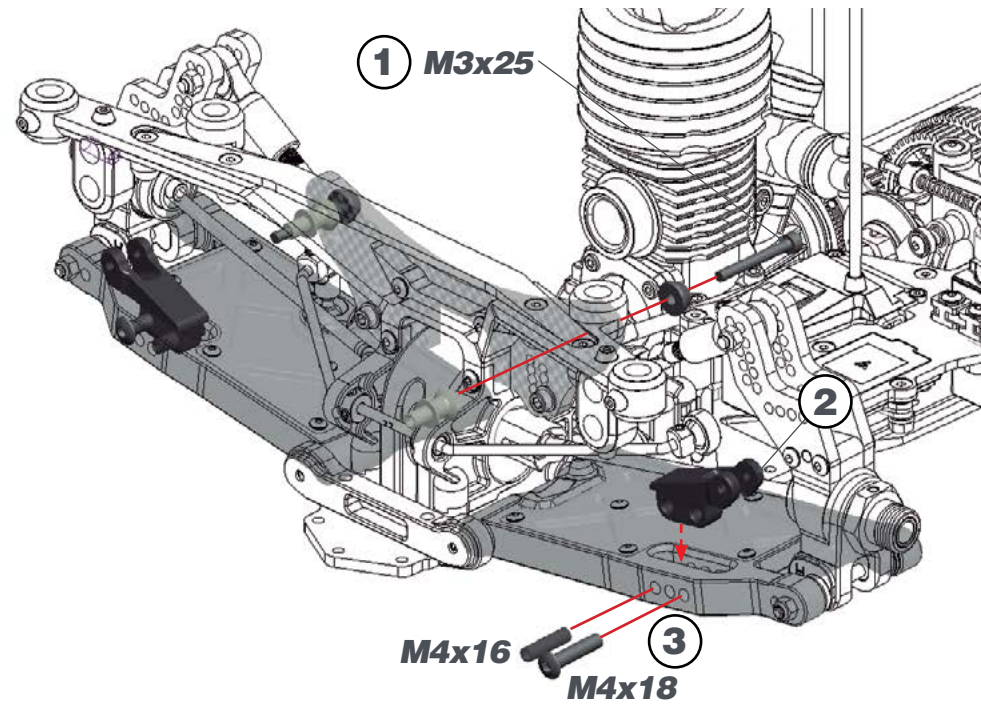
STEP 57



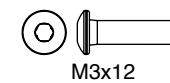
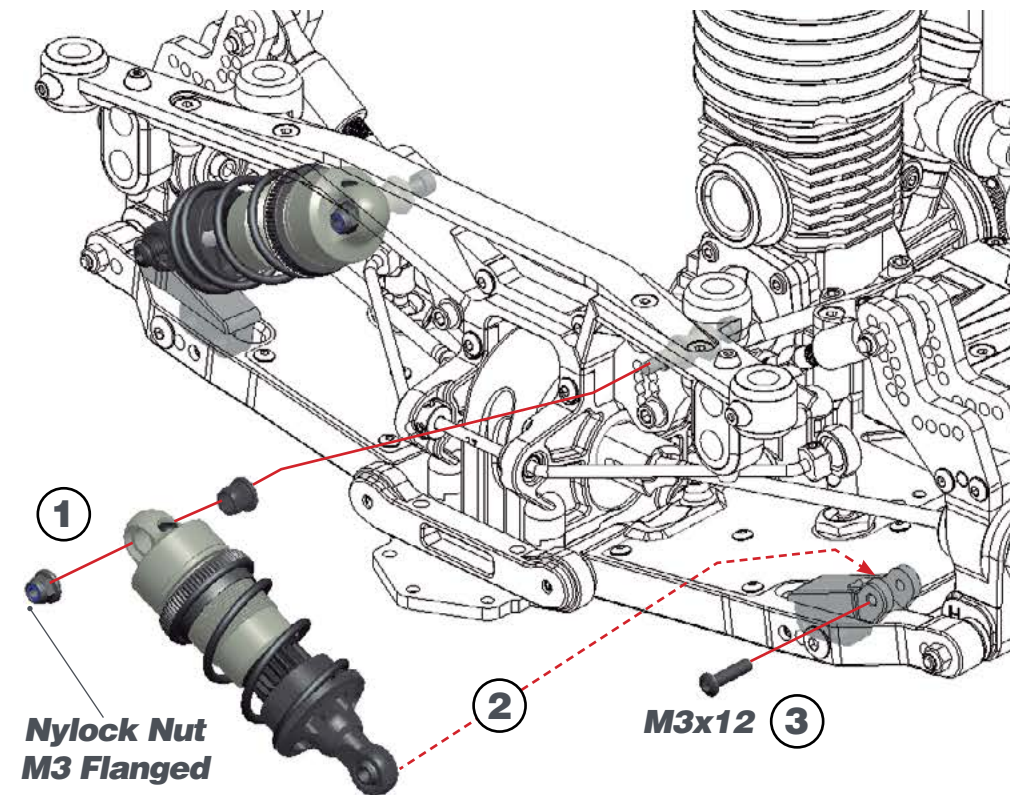
STEP 58



STEP 59



STEP 60



STEP 61

BAG 14

61.1



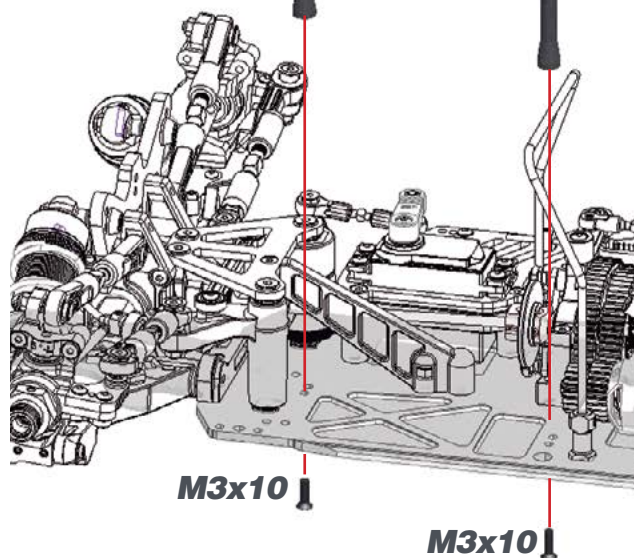
61.3

M3x12
Flanged

M3x12
Flanged

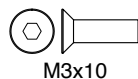


62.2

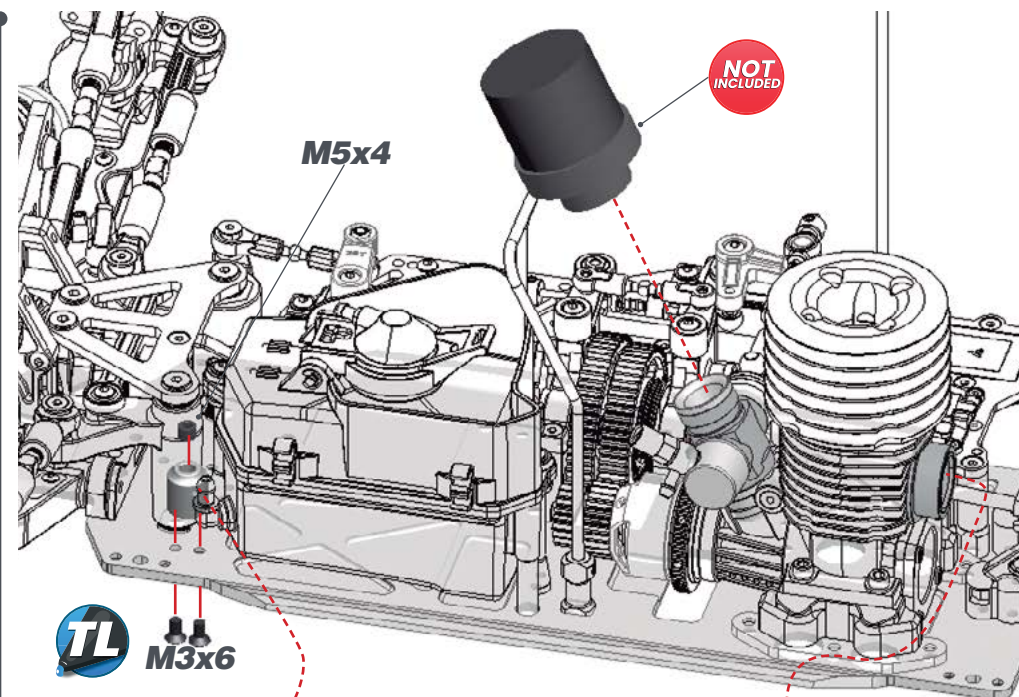


M3x10

M3x10



STEP 62



M5x4



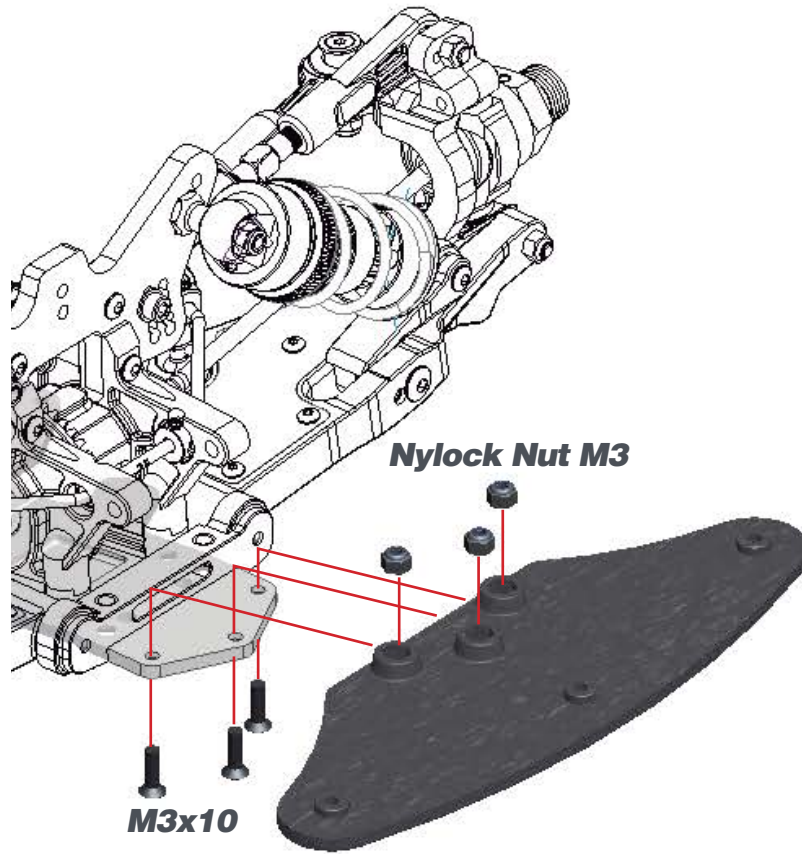
M3x6

NOT
INCLUDED

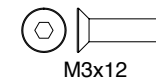
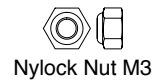
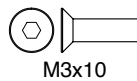
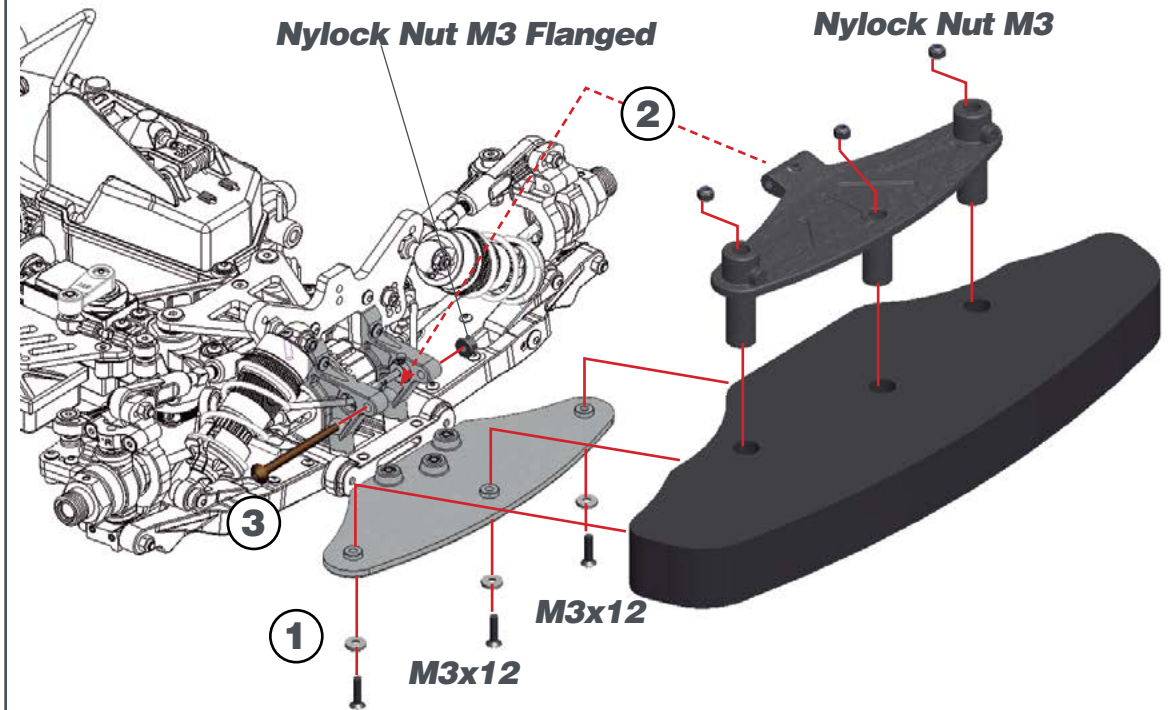


STEP 63

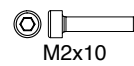
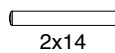
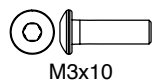
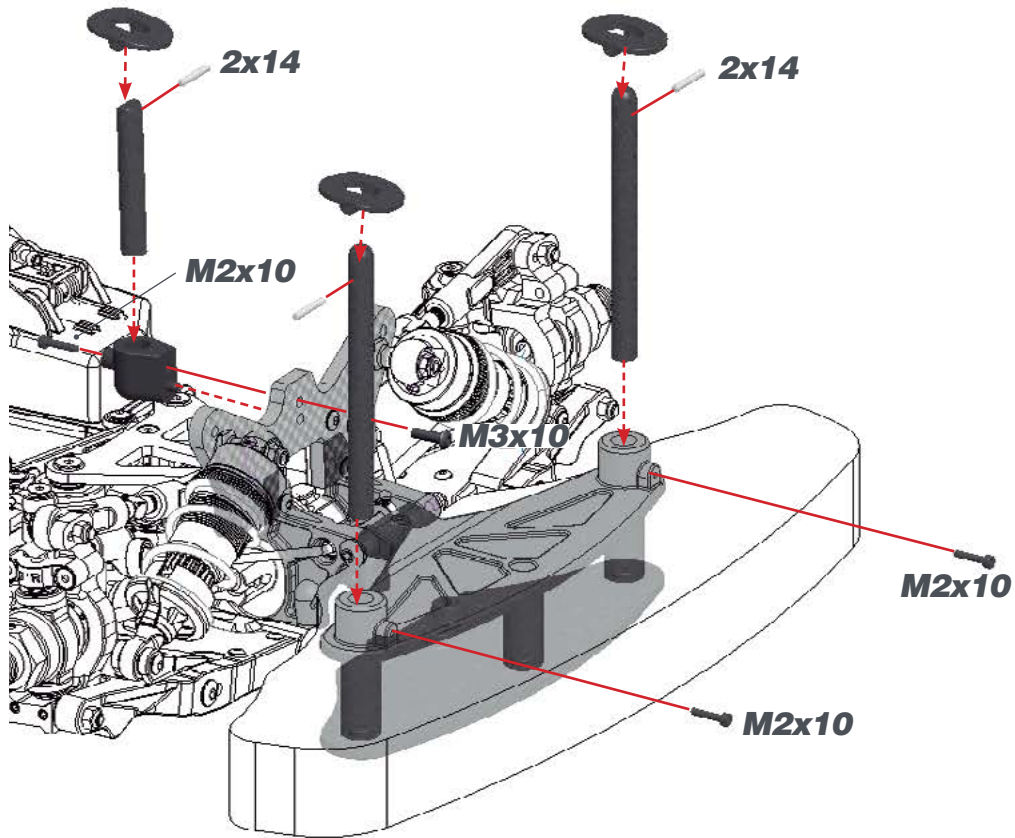
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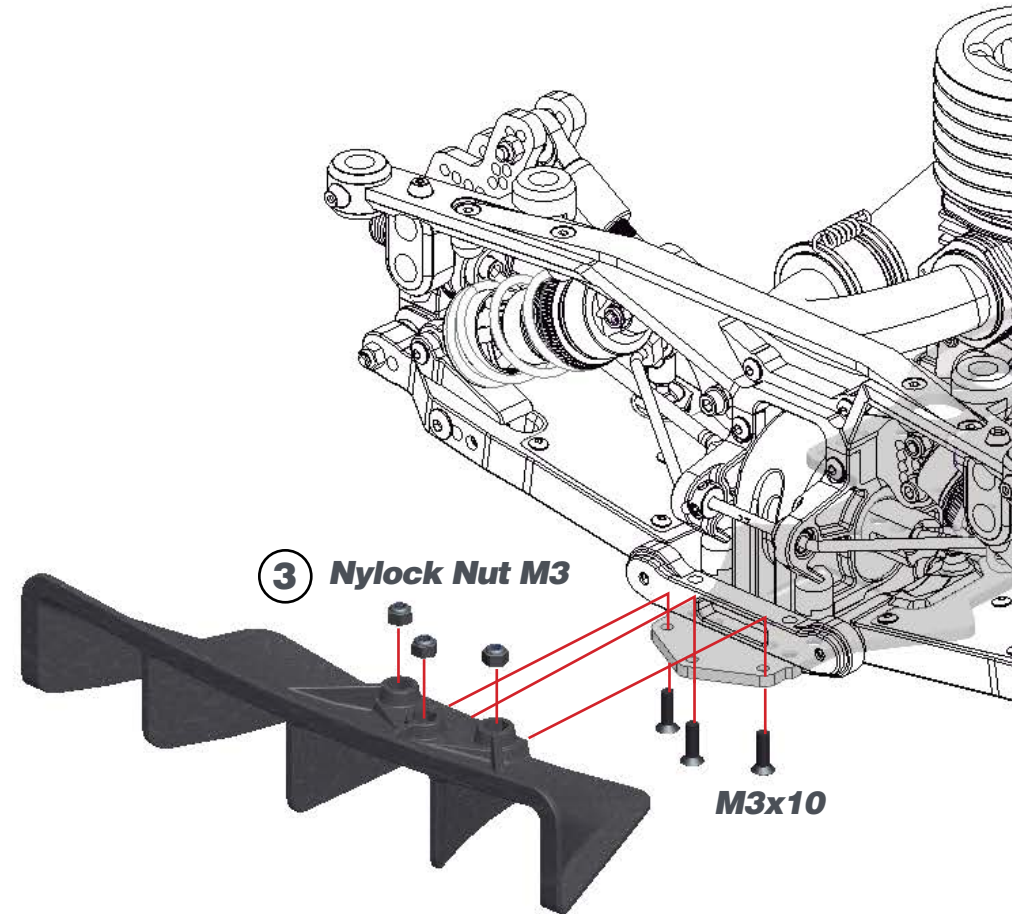
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STEP 65

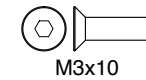
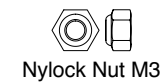


STEP 66

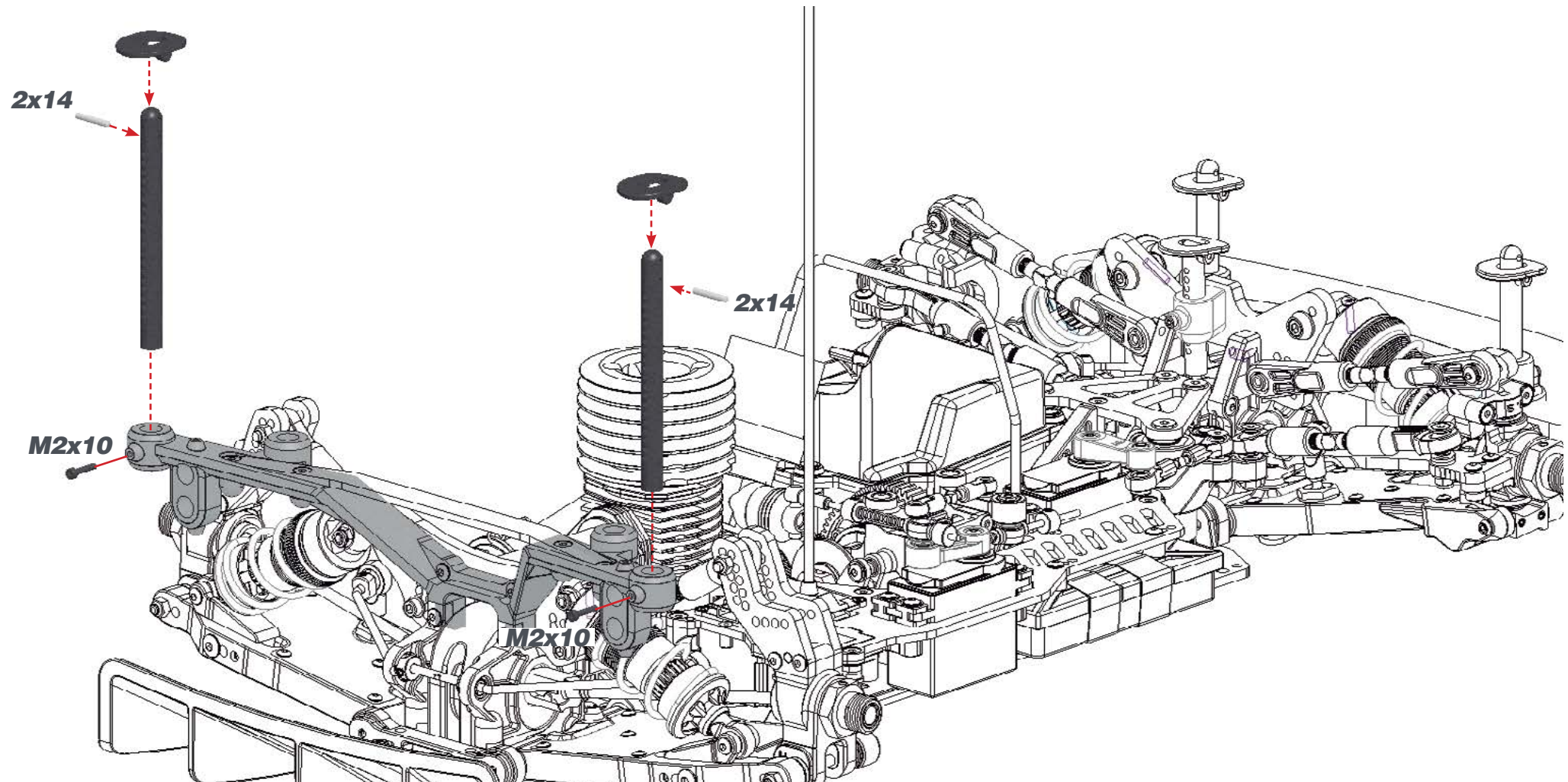


③ Nylock Nut M3

M3x10

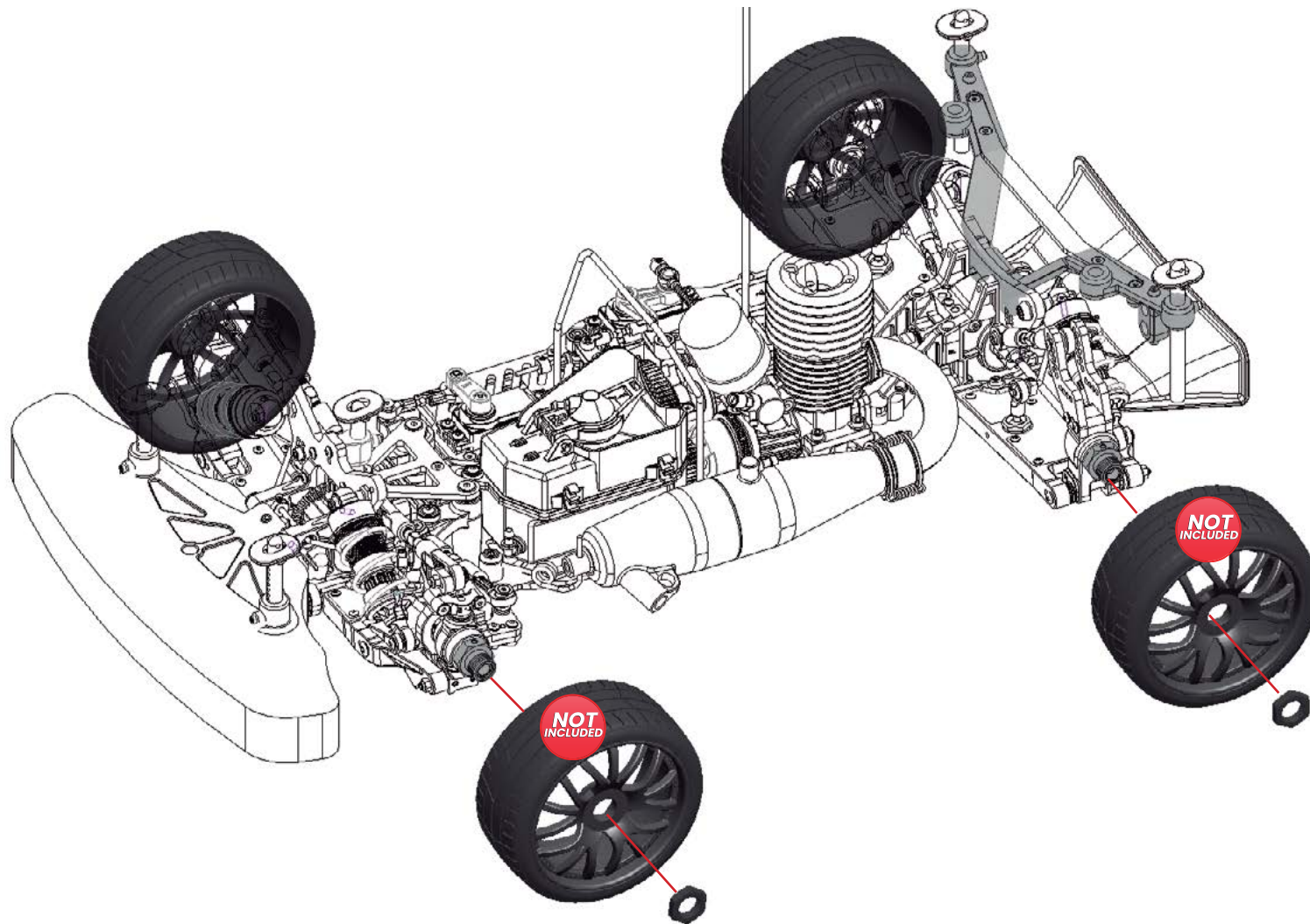


STEP 67



2x14 M2x10

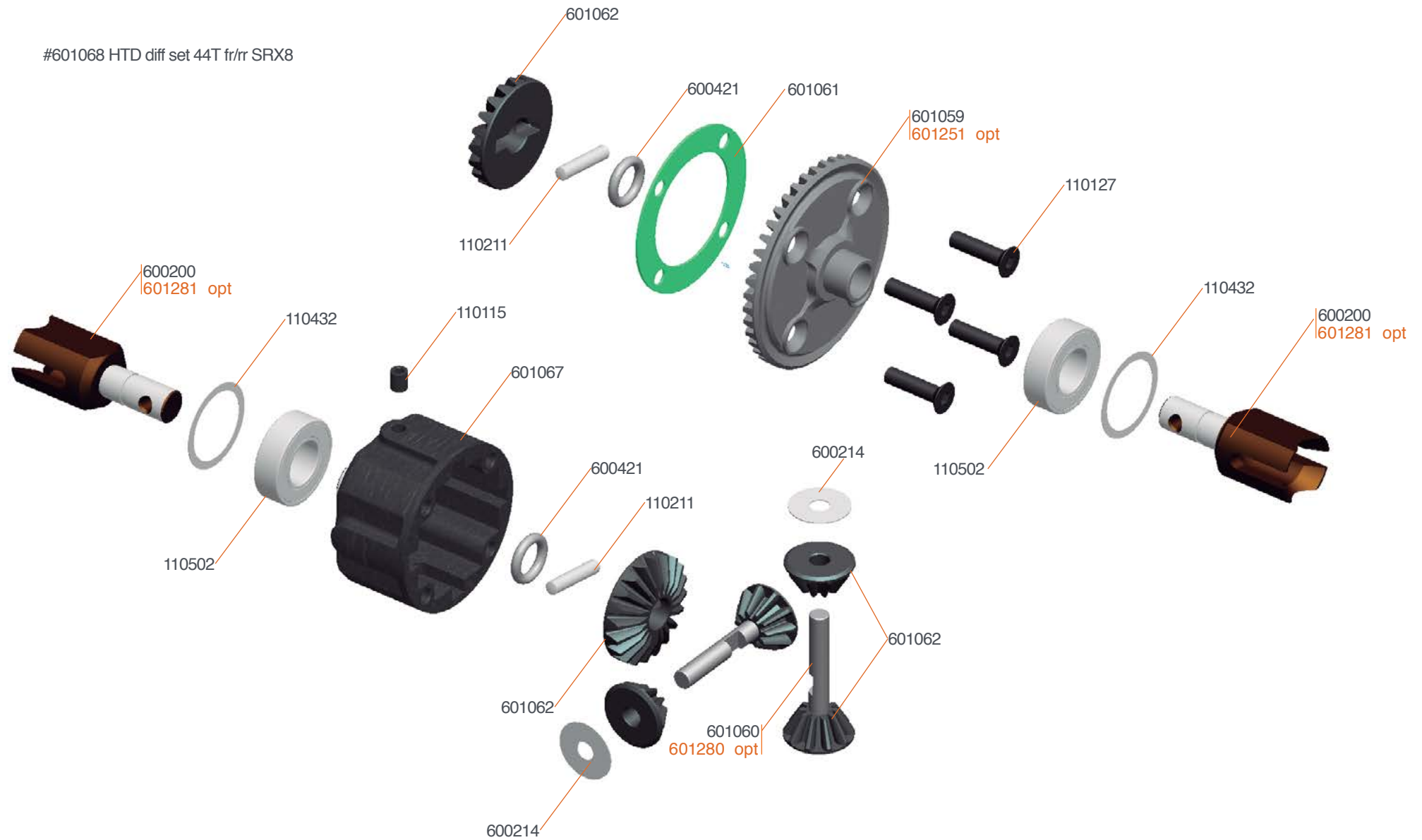
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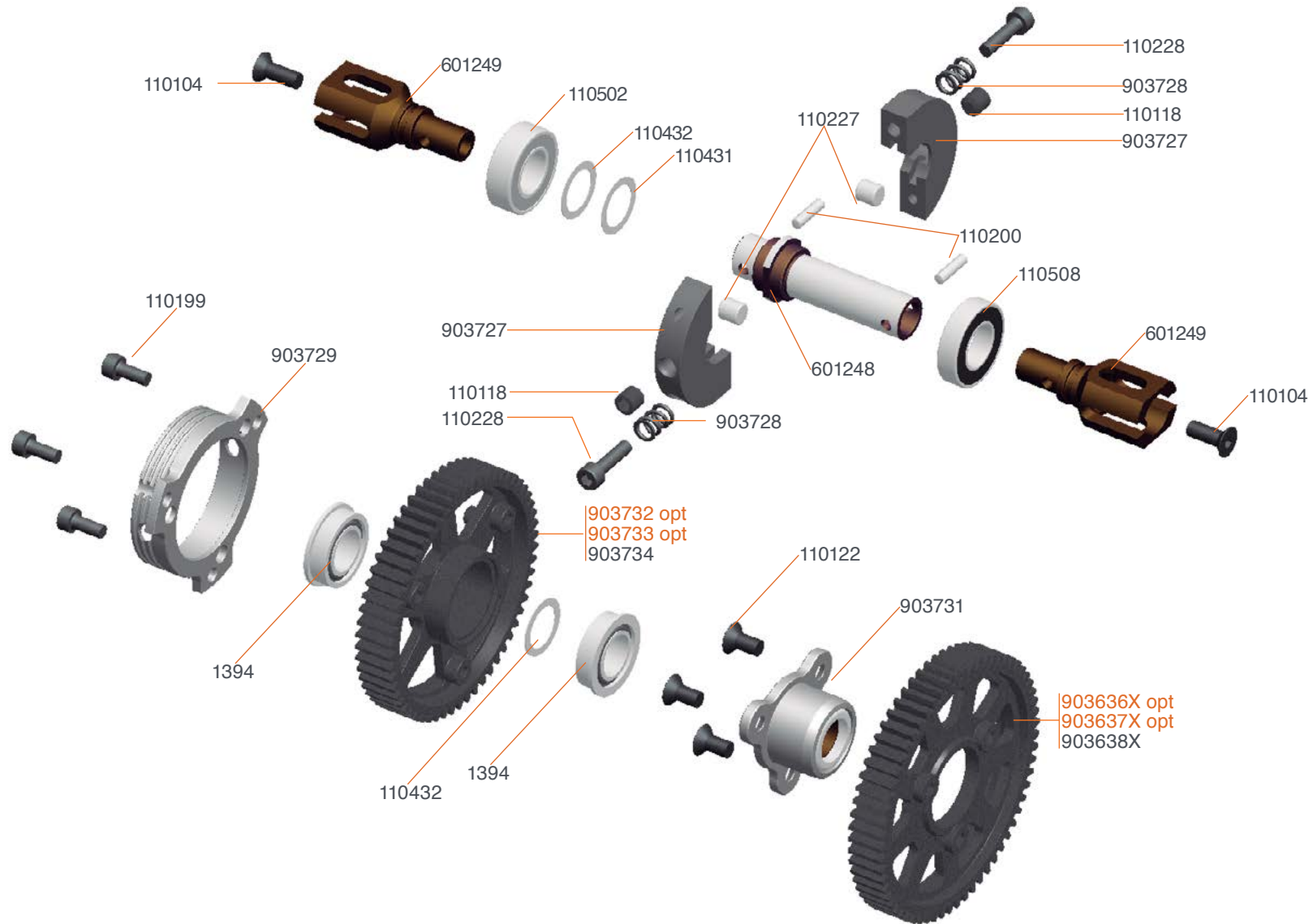
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GEARBOX EXPLODED VIEW	45
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CLUTCH EXPLODED VIEW	51
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#601068 HTD diff set 44T fr/r SRX8



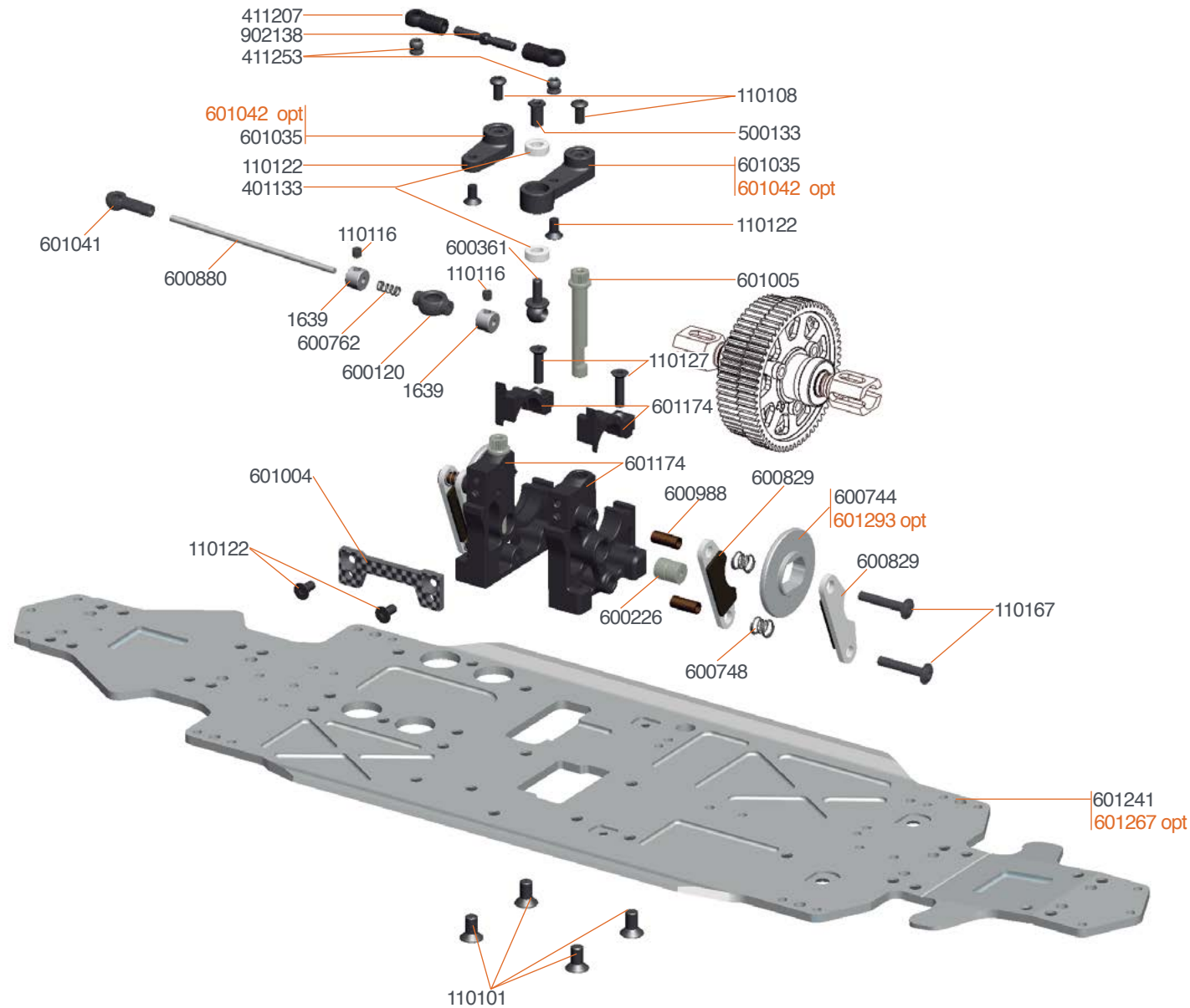
601250 HTD diff set 44T SRX8 GT V2
 601251 HTD diff gear 44T SRX8 GT V2
 601280 HTD diff X-shaft alu SRX8

601281 Diff outdrive (2) V2



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

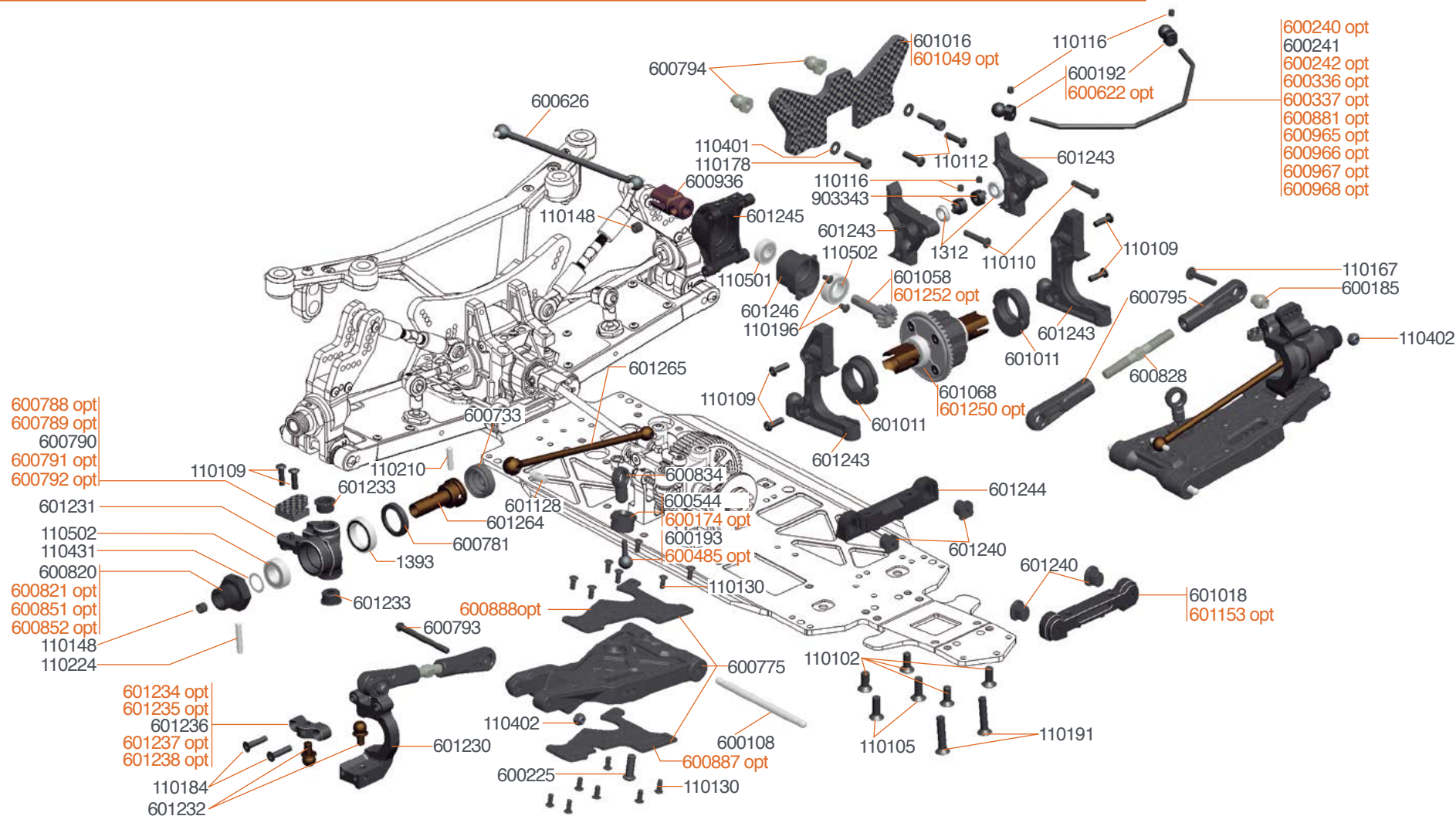


601042 Brake lever fr / rr alu SRX8 GT
 601266 Chassis set 4mm SRX8 GT
 601267 Chassis 4mm SRX8 GT

601268 Chassis inserts carbon SRX8 GT
 601293 Brakedisk pro (2) SRX8



- | | |
|--------|-------------------------------------|
| 600972 | Antiroll bar rear 2.8 mm |
| 601048 | Shock Tower RR Straight arm SRX8-GT |
| 600821 | Wheelhexagon +1mm (2) SRX8 |
| 601152 | Upright magnesium SRX8 GT (2) |
| 601250 | HTD diff set 44T SRX8 GT V2 |
| 601252 | HTD diff pinion 12T SRX8 GT V2 |

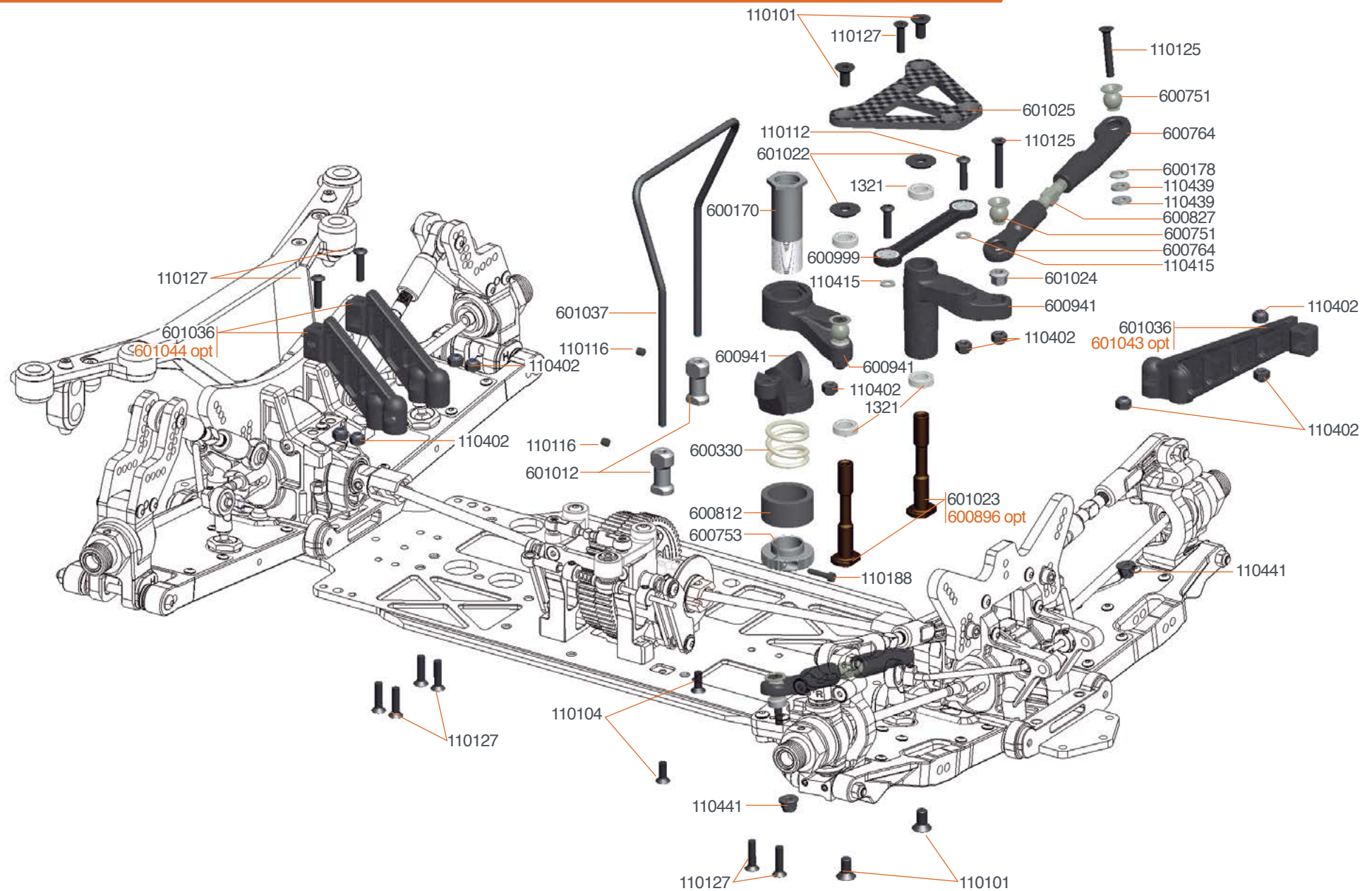


- 600174 Antirollbar nut (2)
- 600336 Antiroll bar front 1.8mm
- 600337 Antiroll bar front 2.0mm
- 600240 Antiroll bar front 2.3mm
- 600242 Antiroll bar front 2.7mm
- 600484 Antirollbar spacer 3mm alu (2)
- 600485 Pivotball threaded anti roll bar alu (2)
- 600622 Pivotball antirollbar alu (4)
- 600788 Steering arm 0 carbon (2) SRX8
- 600789 Steering arm 1 carbon (2) SRX8

- 600791 Steering arm 3 carbon (2) SRX8
- 600792 Steering arm 4 carbon (2) SRX8
- 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 SRX8 (2)
- 600888 Wishbone insert carbon FR Upper SRX8
- 600965 Antiroll bar front 2.2 mm

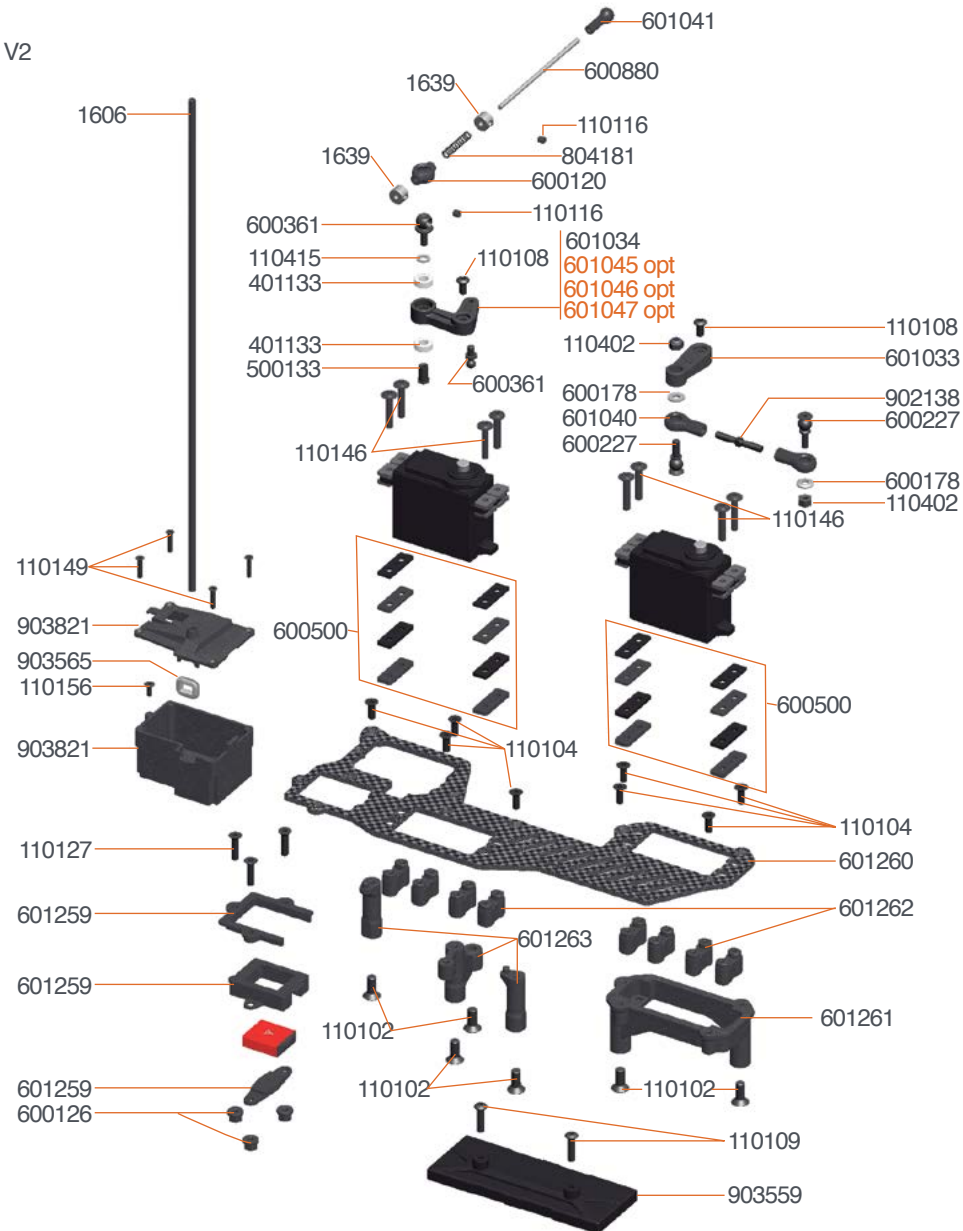
- 600966 Antiroll bar front 2.4 mm
- 600967 Antiroll bar front 2.6 mm
- 600968 Antiroll bar front 2.8 mm
- 601049 Shock Tower FR Straight arm SRX8
- 600821 Wheelhexagon +1mm (2) SRX8
- 01234 Adjustable casterblock mount 0deg L+R SRX8 GT
- 601235 Adjustable casterblock mount 2,5deg L+R SRX8 GT
- 601237 Adjustable casterblock mount 7,5deg L+R

- SRX8 GT
- 601238 Adjustable casterblock mount 10deg L+R SRX8 GT
- 601250 HTD diff set 44T SRX8 GT V2
- 601252 HTD diff pinion 12T SRX8 GT V2



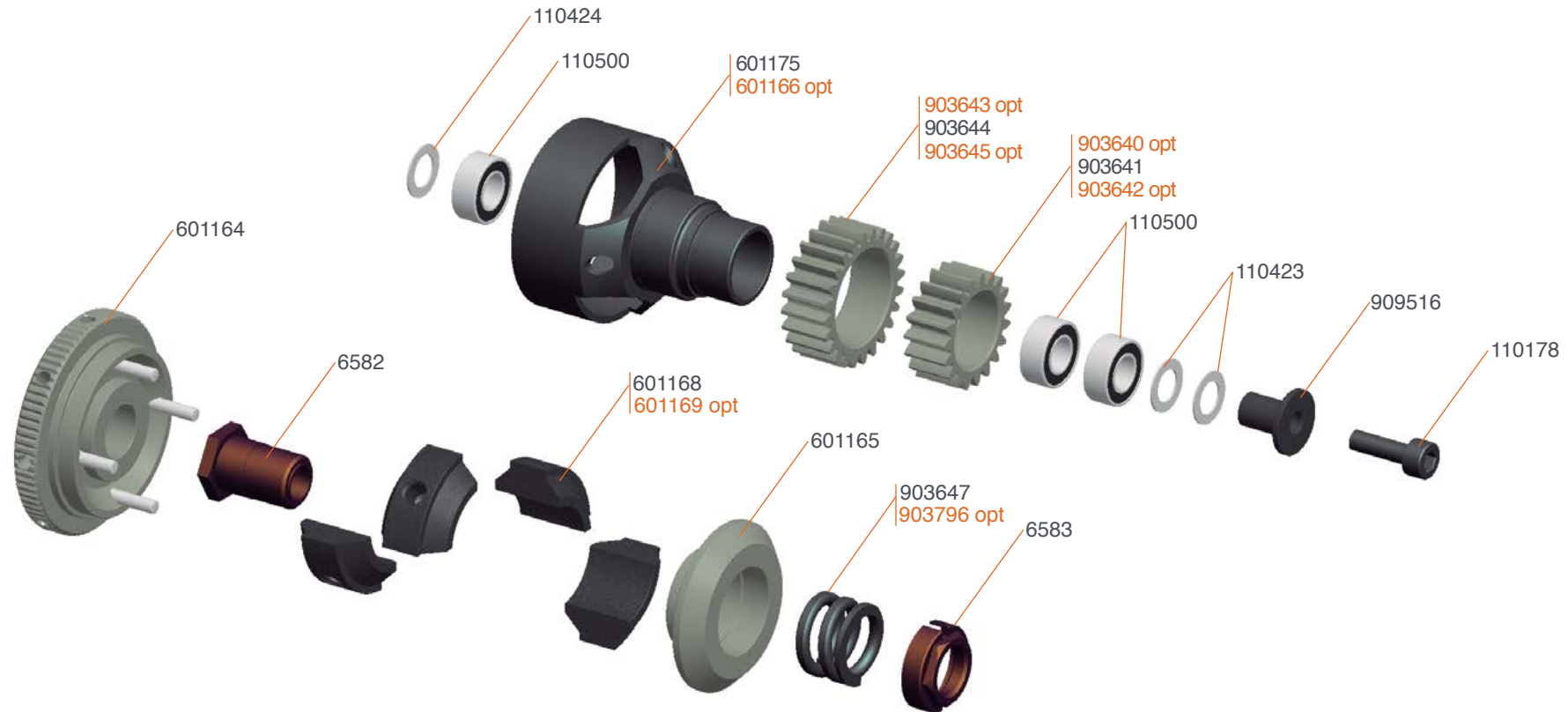
601044 Transmission brace rr alu SRX8 GT (2)
 601043 Transmission brace fr alu SRX8 GT
 601157 Steering post alu SRX8 GT (2)

#601259 Radioplate set carbon SRX8 GT V2



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



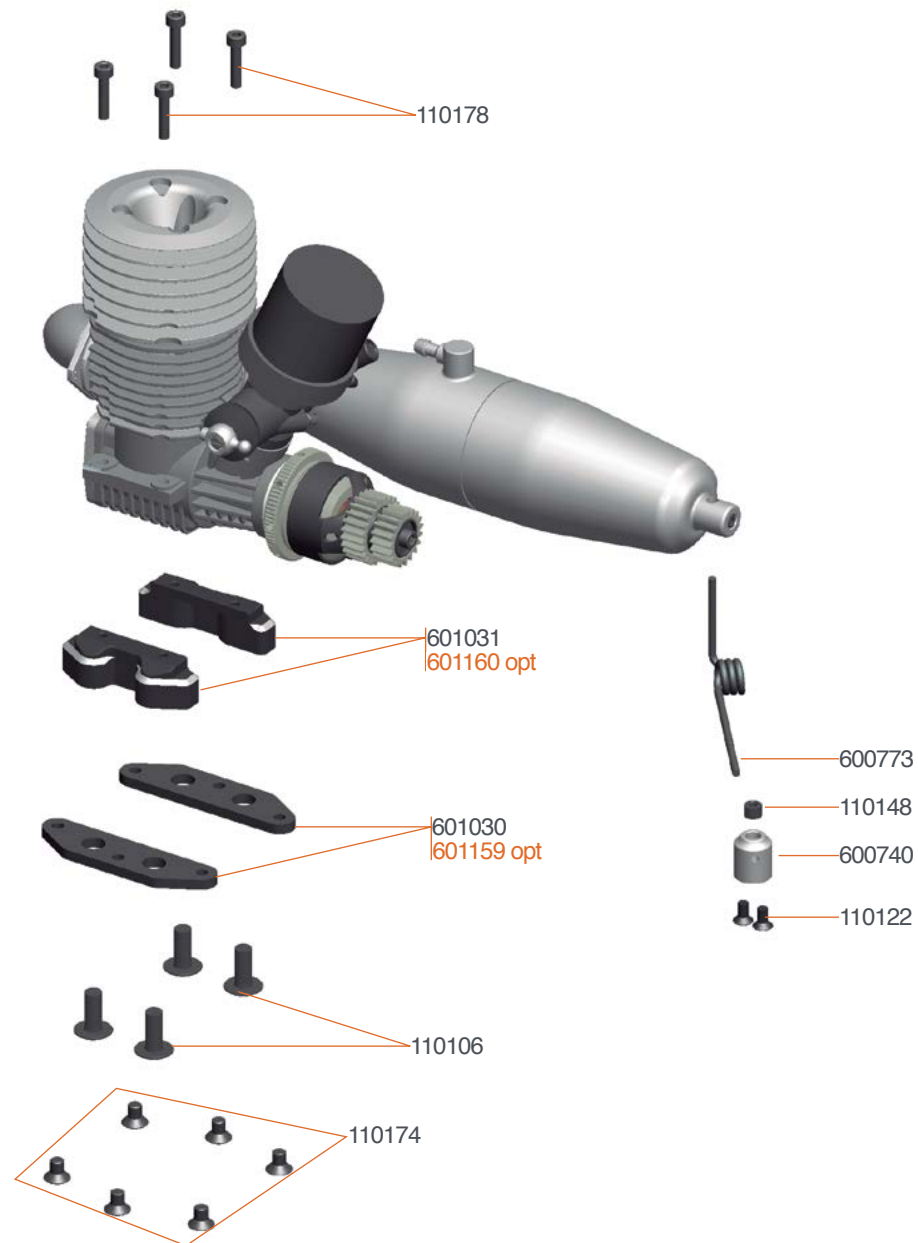
903640 Centax gear-pinion alu 18T XLI
903642 Centax gear-pinion alu 20T XLI
903643 Centax gear-pinion alu 23T XLI

903645 Centax gear-pinion alu 25T XLI
903646 Centax gear-pinion alu set XLI (6)
601169 Adjustable GT clutchshoe yellow

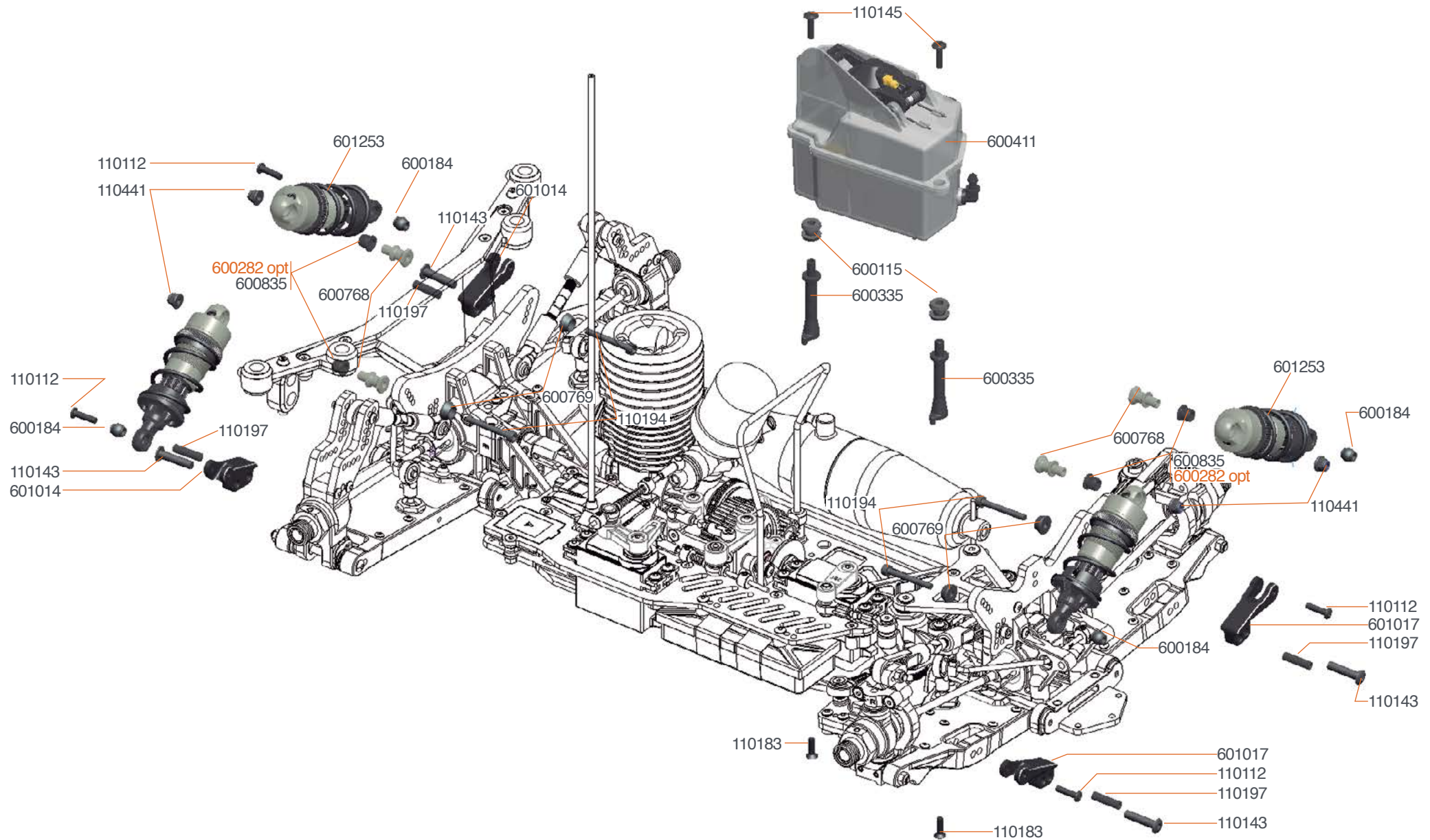
903796 Centax spring XX-hard
601166 Adjustable GT clutchbell alu coated



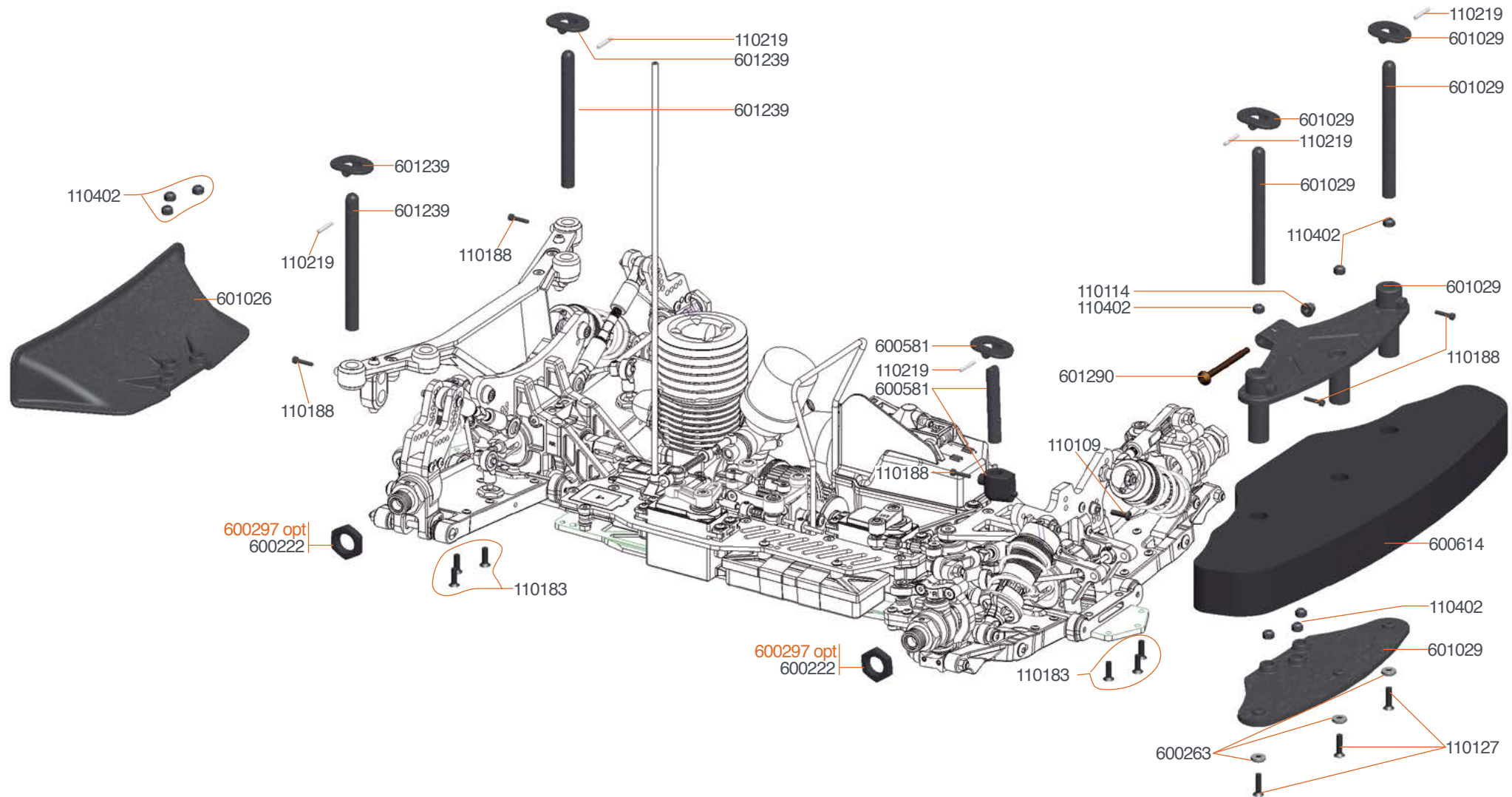
601071 Shock piston angled 1.3mm 8holes
(4) SRX8



601159 Enginemount bottom magnesium SRX8 GT (2)
 601160 Enginemount top magnesium SRX8 GT (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/r SRX8 GT

601269 Aero bumper set SRX8 GT
 601276 Side bodymount set SRX8 GT

TEAM SERPENT NETWORK

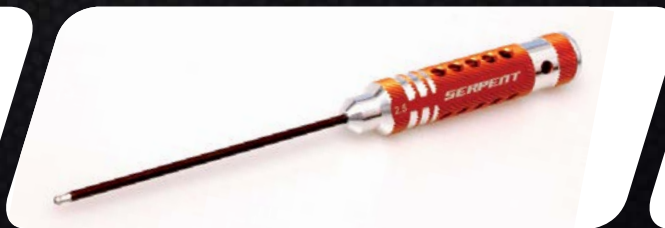
SRX8 GT '23 SPARE PARTS



SRX8 GT '23 OPTIONALS PARTS



SERPENT TOOLS



SERPENT MERCHANDISING



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