



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.

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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.

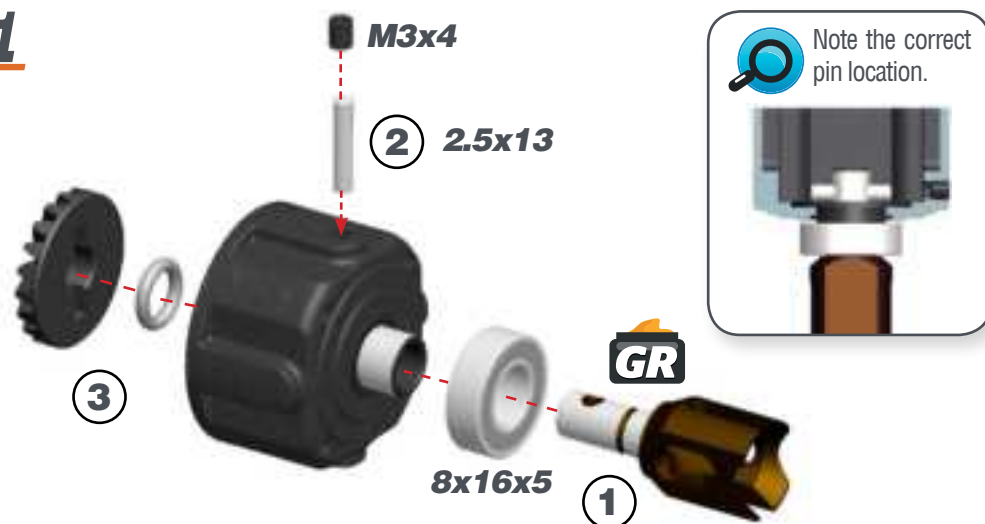


Optional part, not standard in the kit.

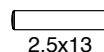
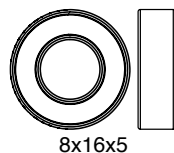
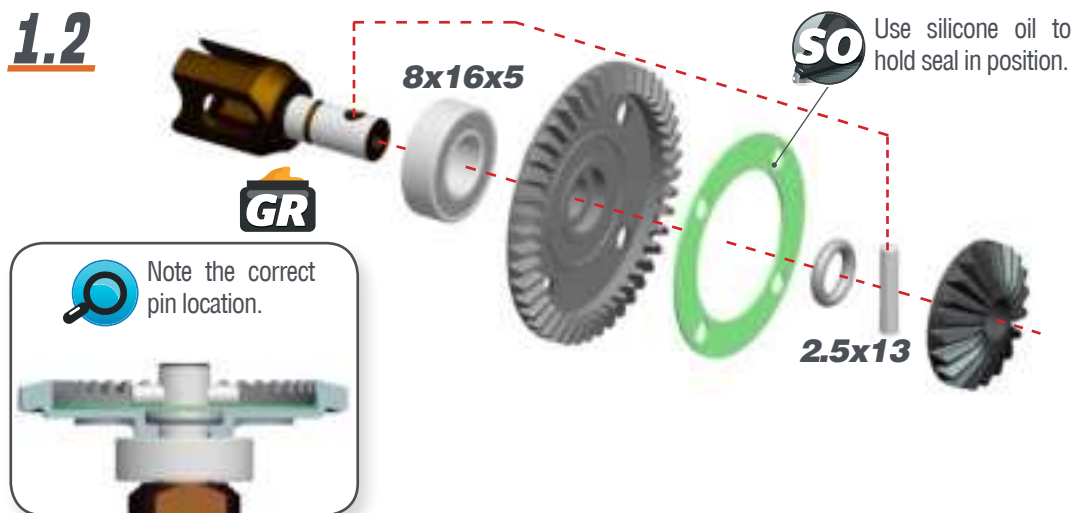
STEP 1

DIFF BAG FR/RR

1.1



1.2



STEP 2

2.1

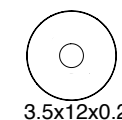
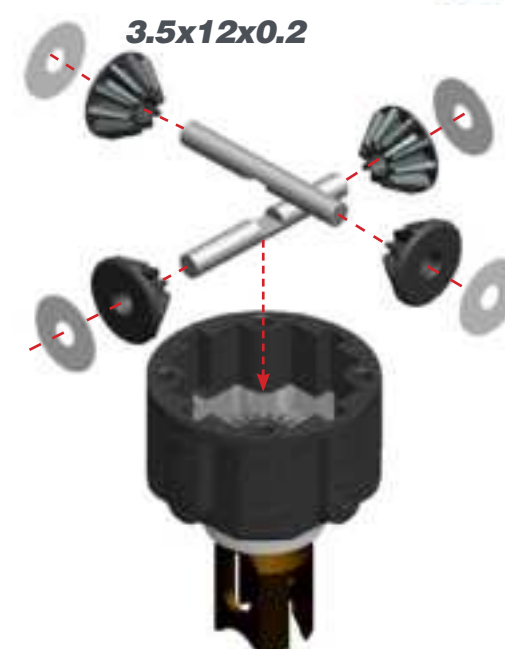
Add just enough oil to cover the large gear before assembling the small satellite gears and cross pins.

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

SO

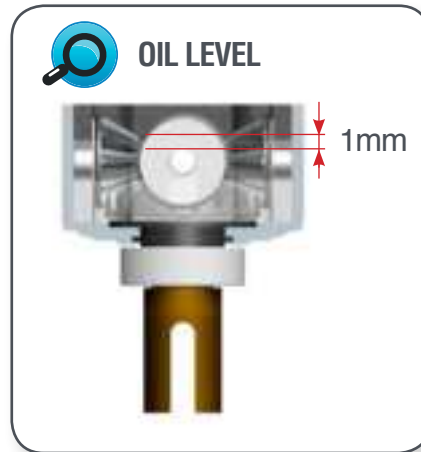


2.2



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

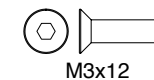
Use a digital scale to measure the exact amount of oil in the diff.

Differential weight should be 45.7-45.8 grams.



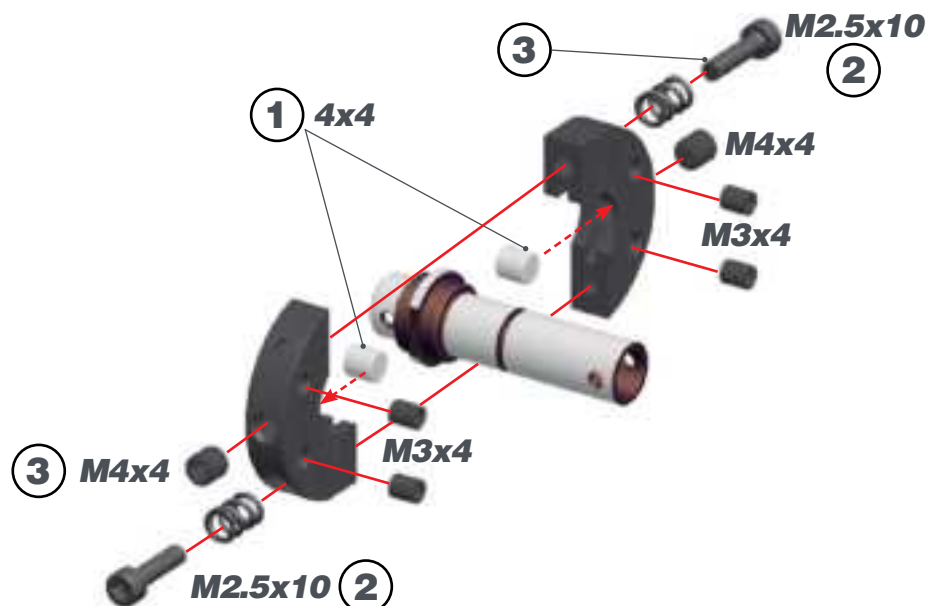
STEP 4

M3x12



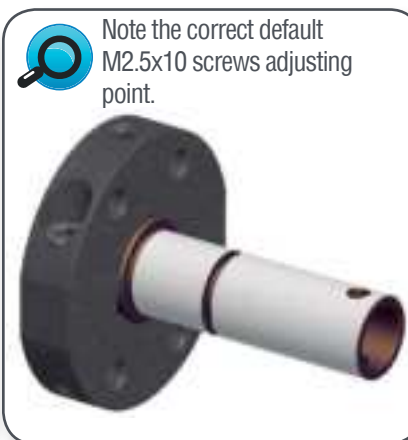
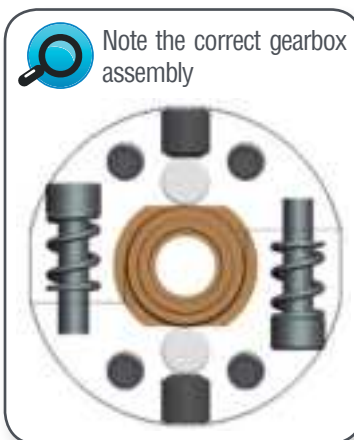
STEP 5

BAG 1



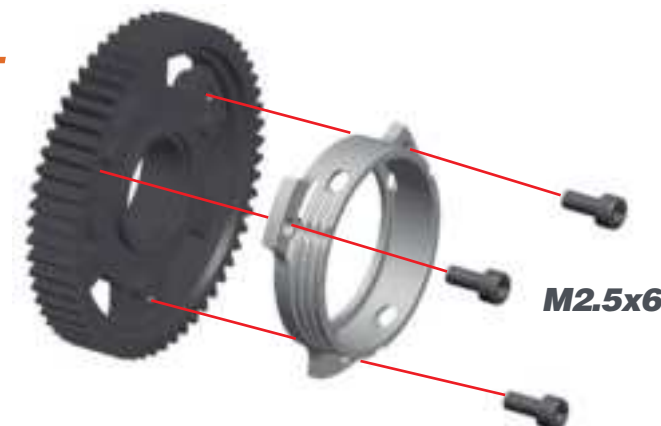
! 1- The M2.5x10 screws adjust the SHIFT POINT. As default adjustment screw them until the screws will be leveled with the hole as in the right pictures.

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.

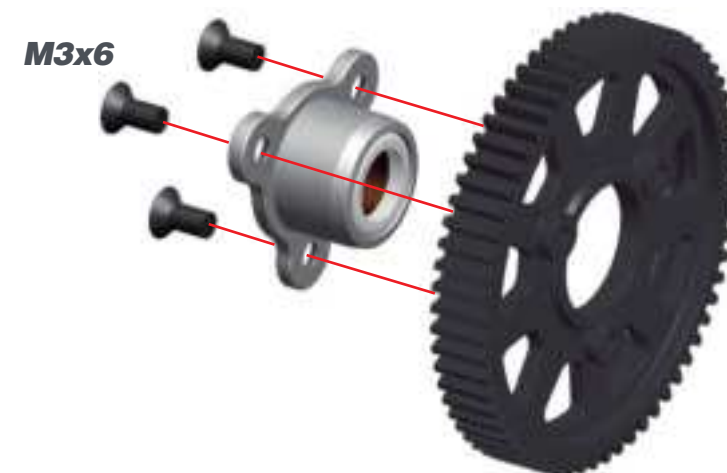


STEP 6

6.1

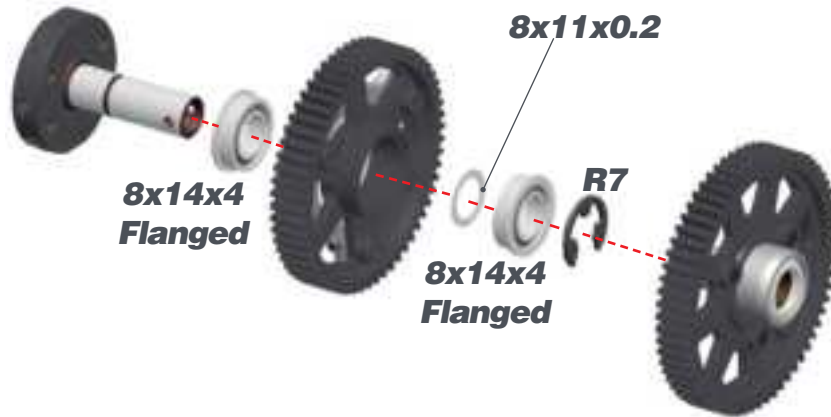


6.2

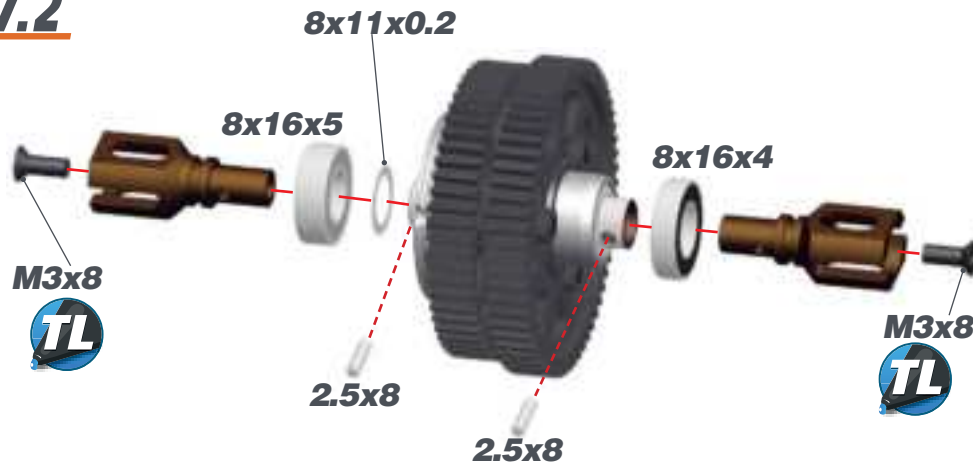


STEP 7

7.1

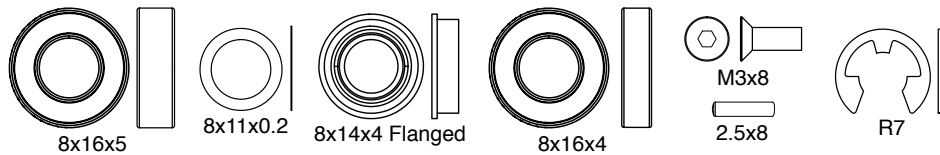
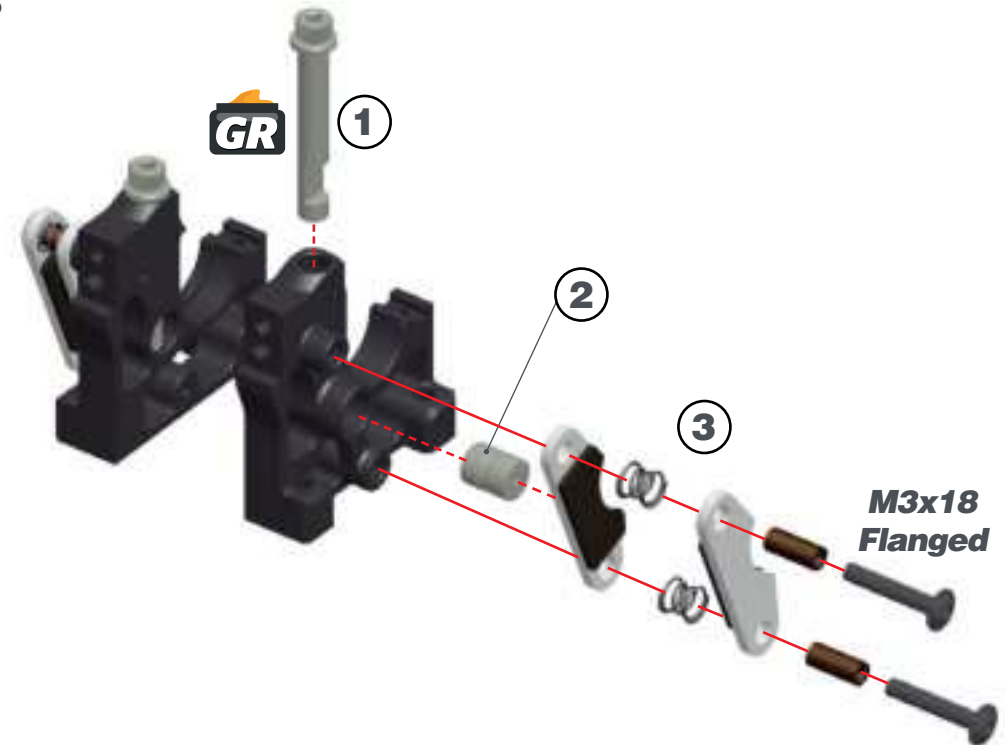


7.2

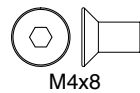
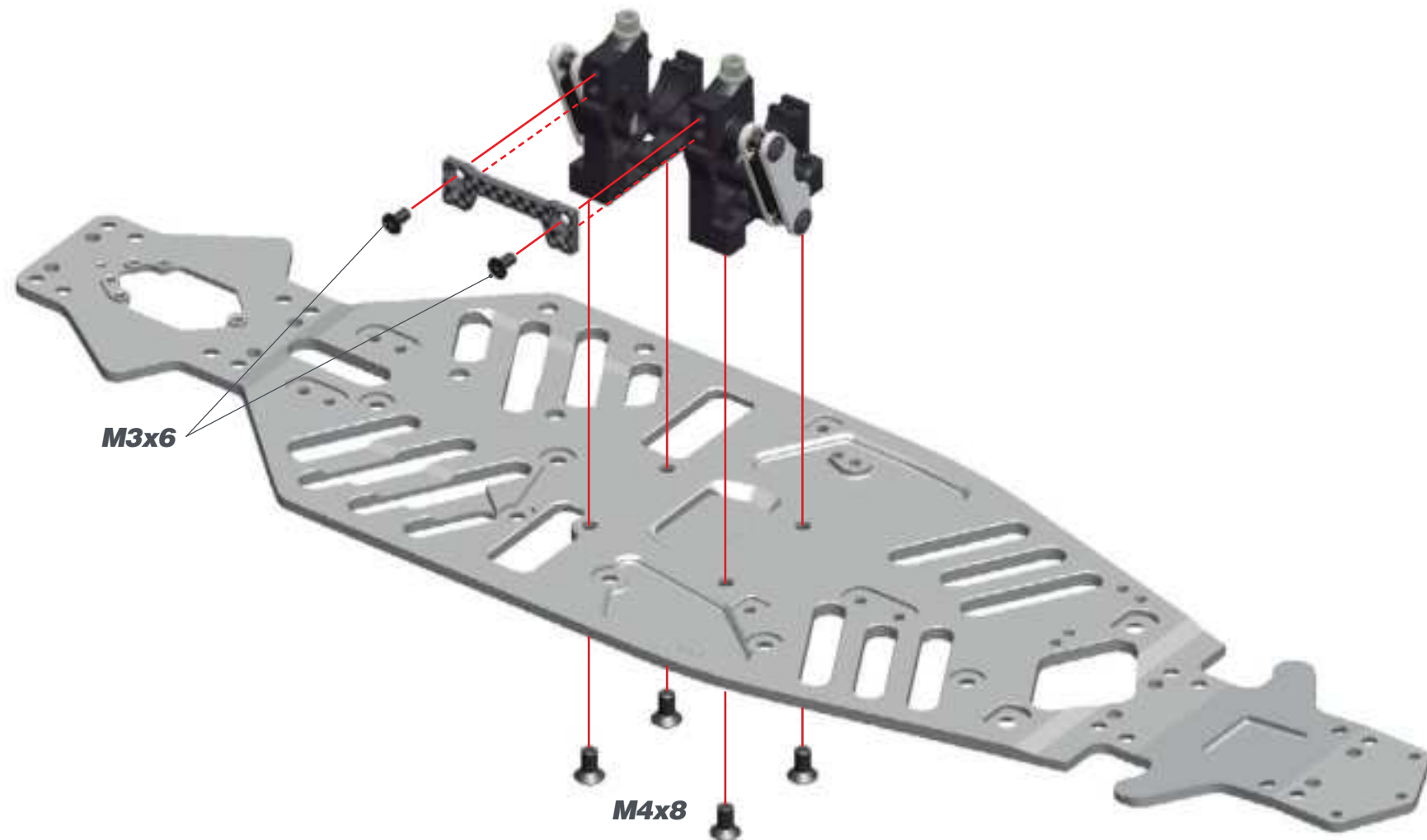


STEP 8

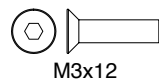
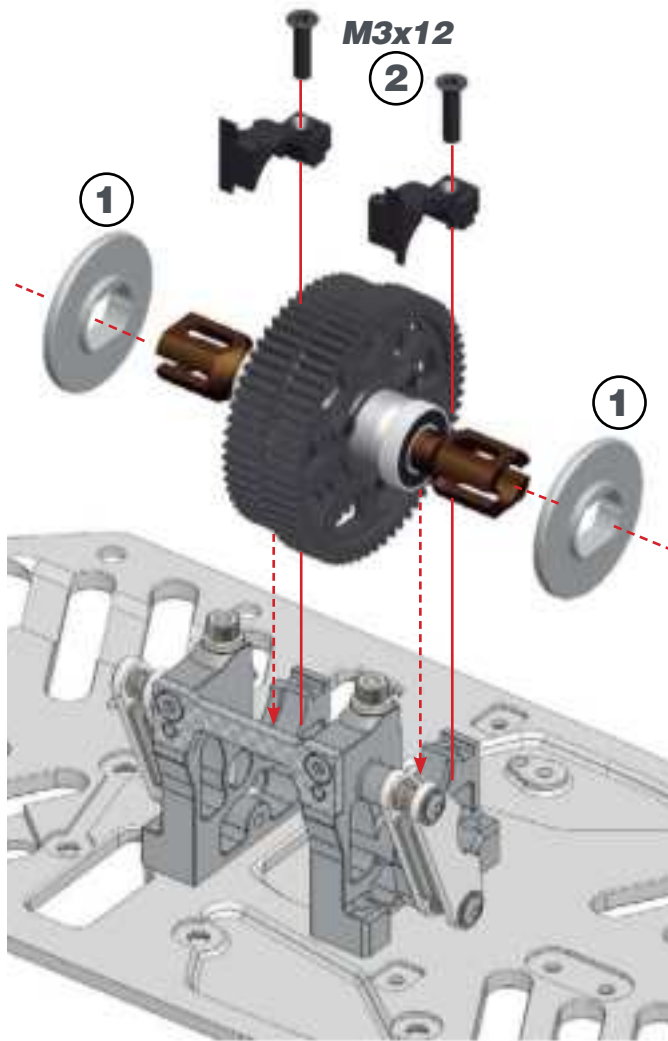
BAG 2



STEP 9

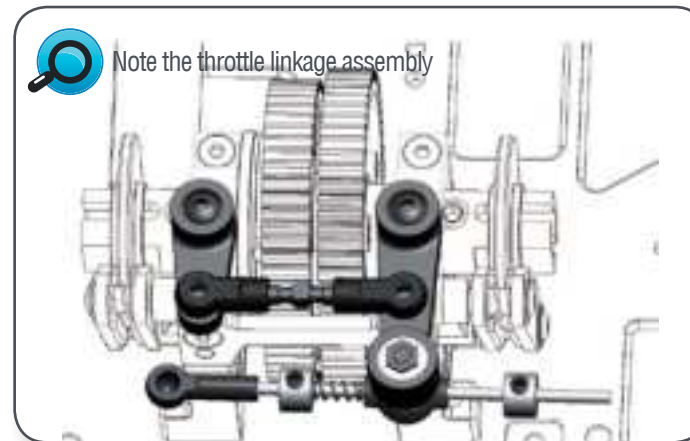
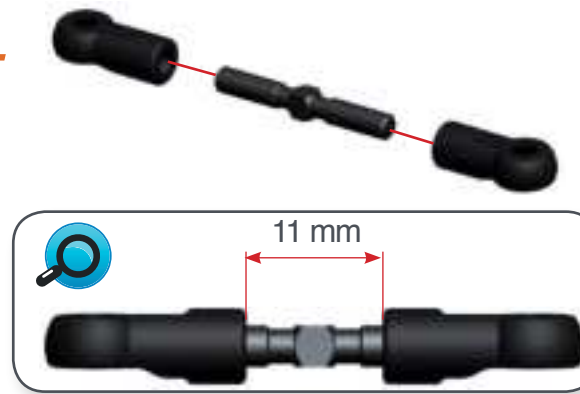


STEP 10

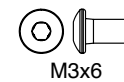
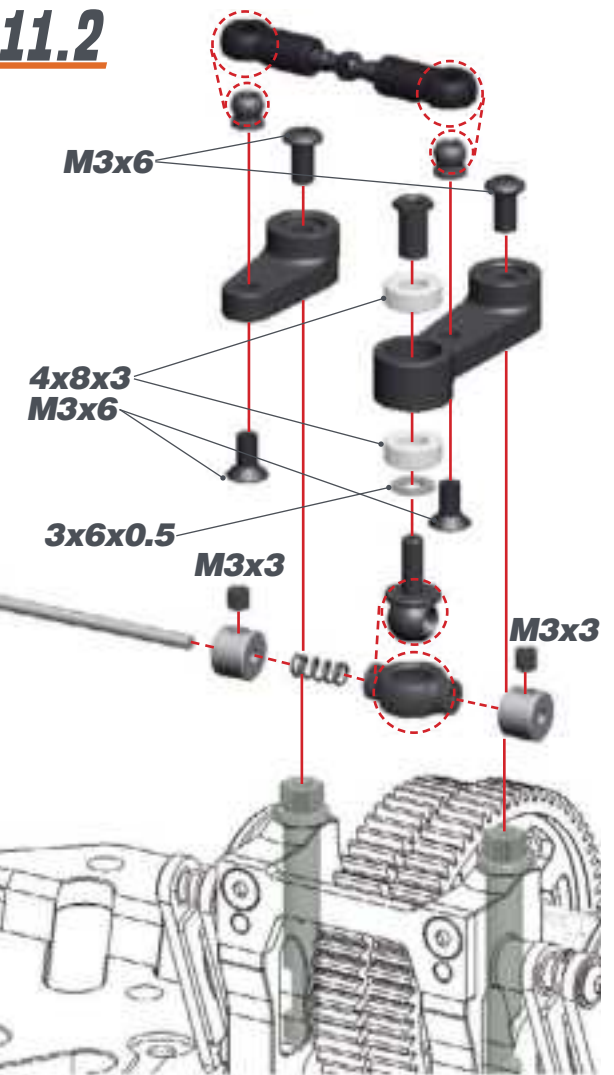


STEP 11

11.1

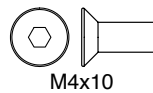
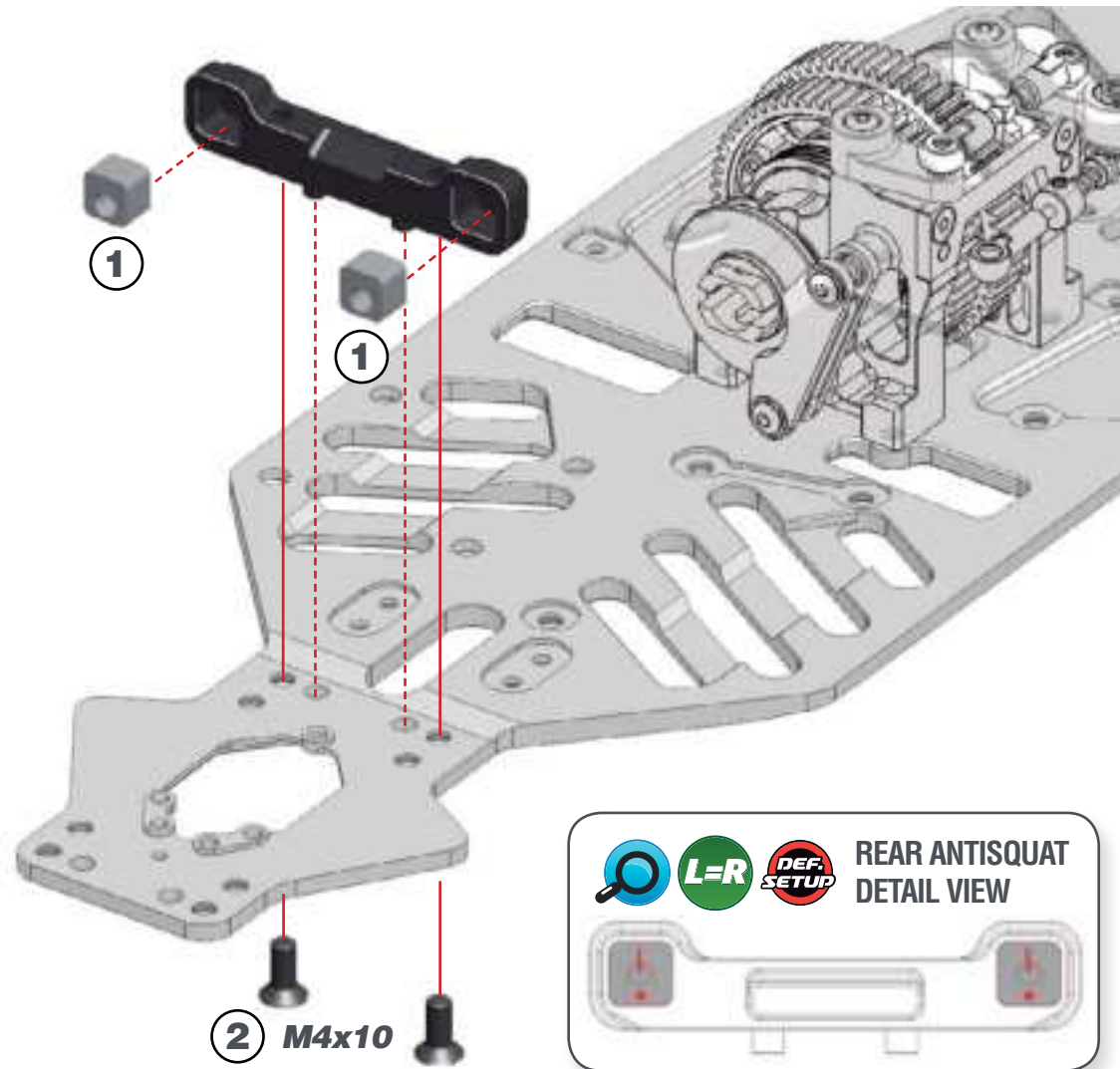


11.2

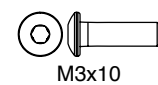
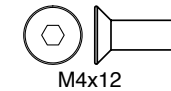
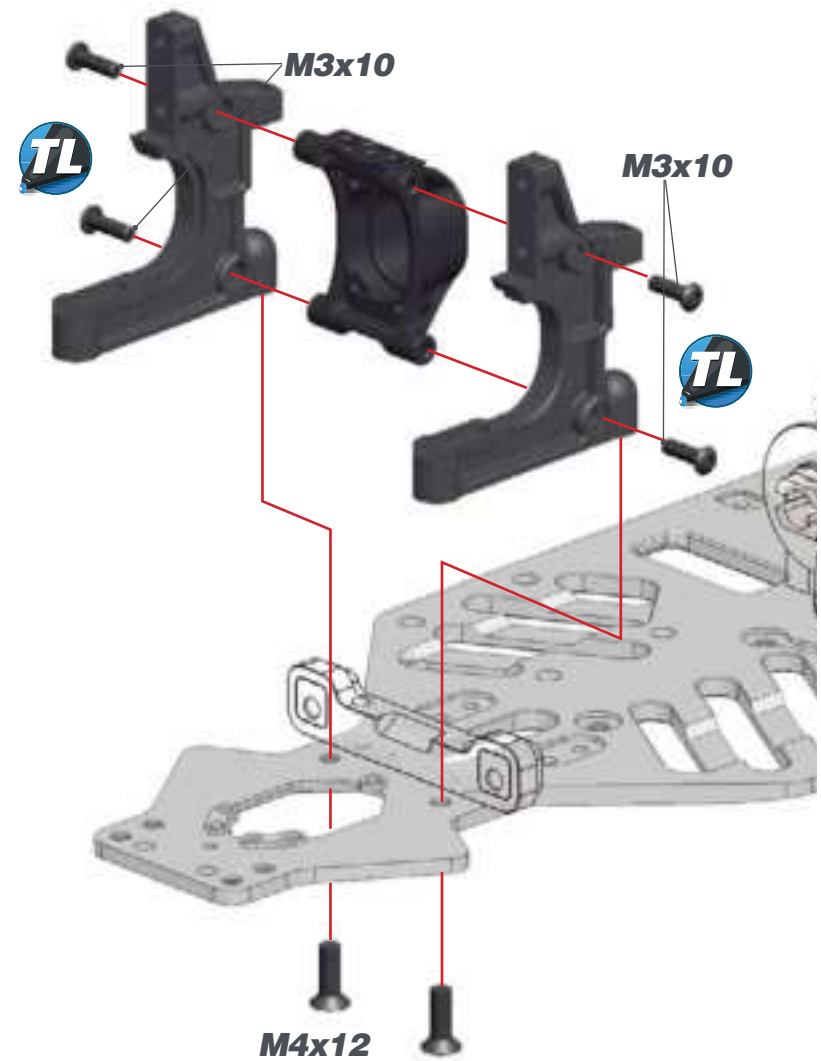


STEP 12

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.

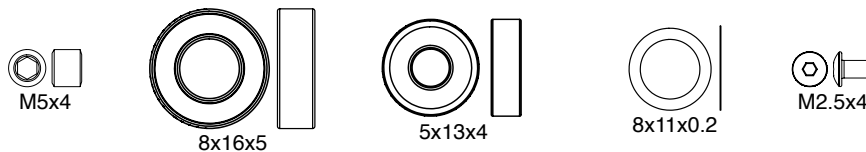
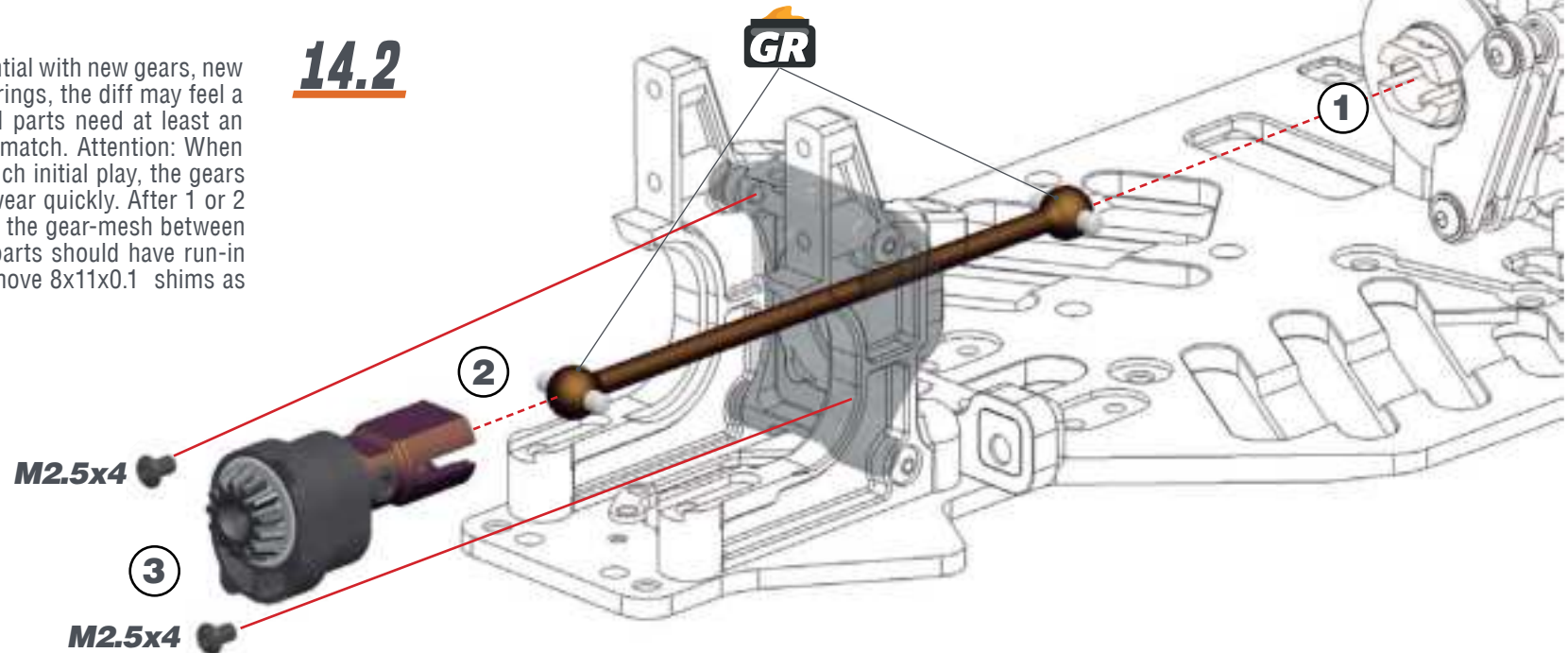
LOW	MID LOW	MID HIGH	HIGH

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



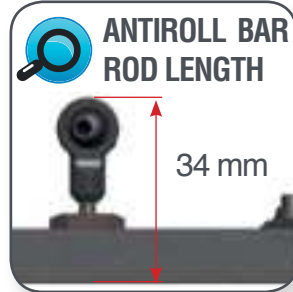
STEP 15

BAG 4

15.1 L=R

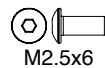


Tighten anti-roll bar cap until there is no play, and it moves freely.

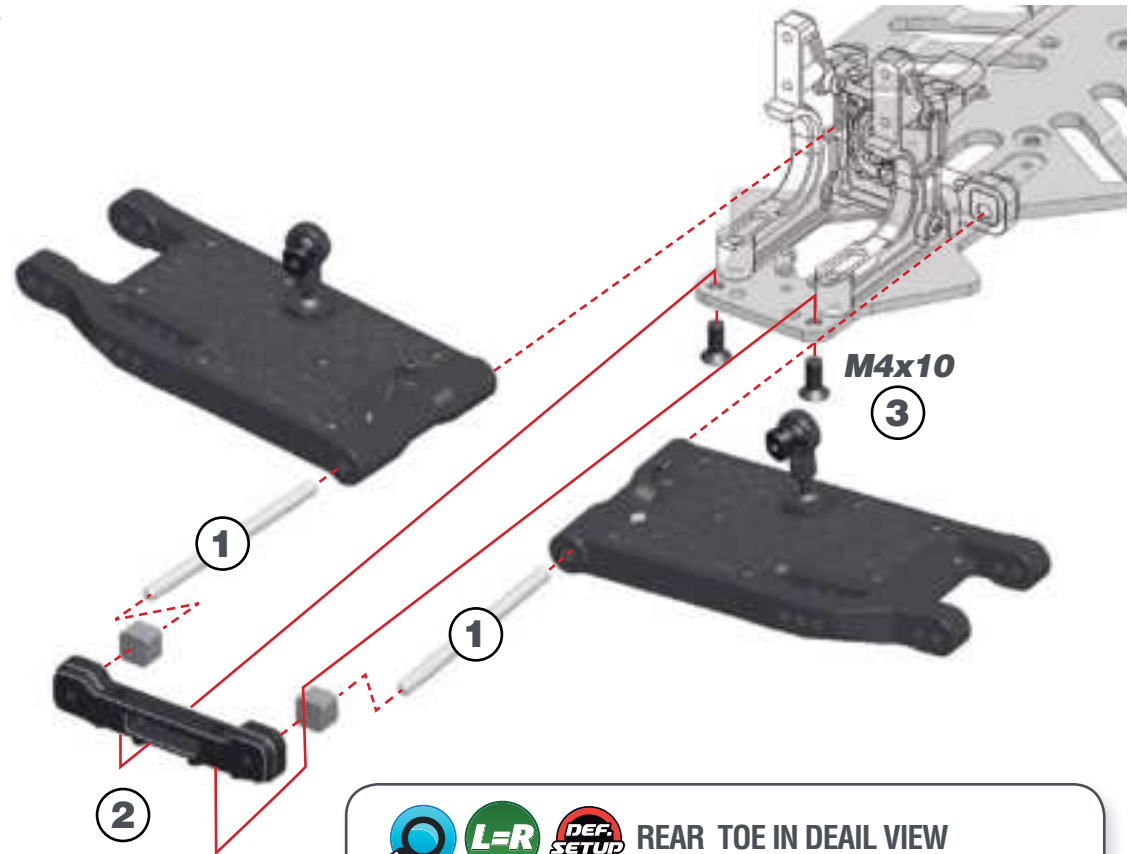


15.2

M2.5x6

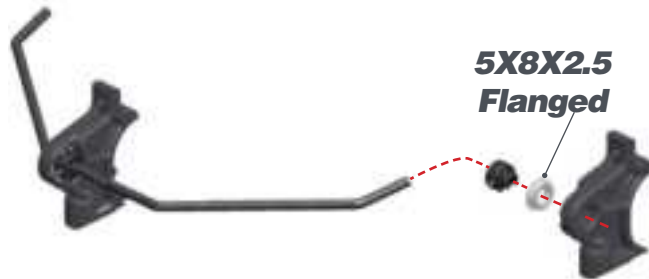


STEP 16

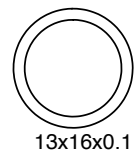
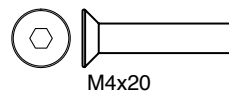
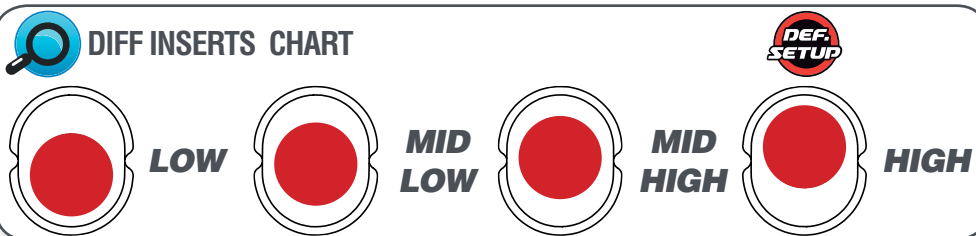
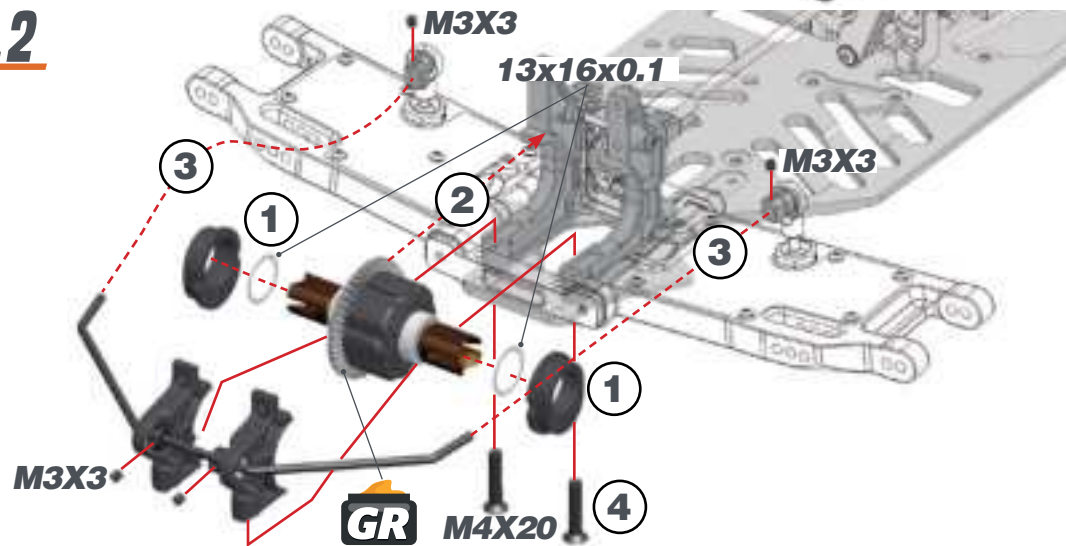


STEP 17

17.1

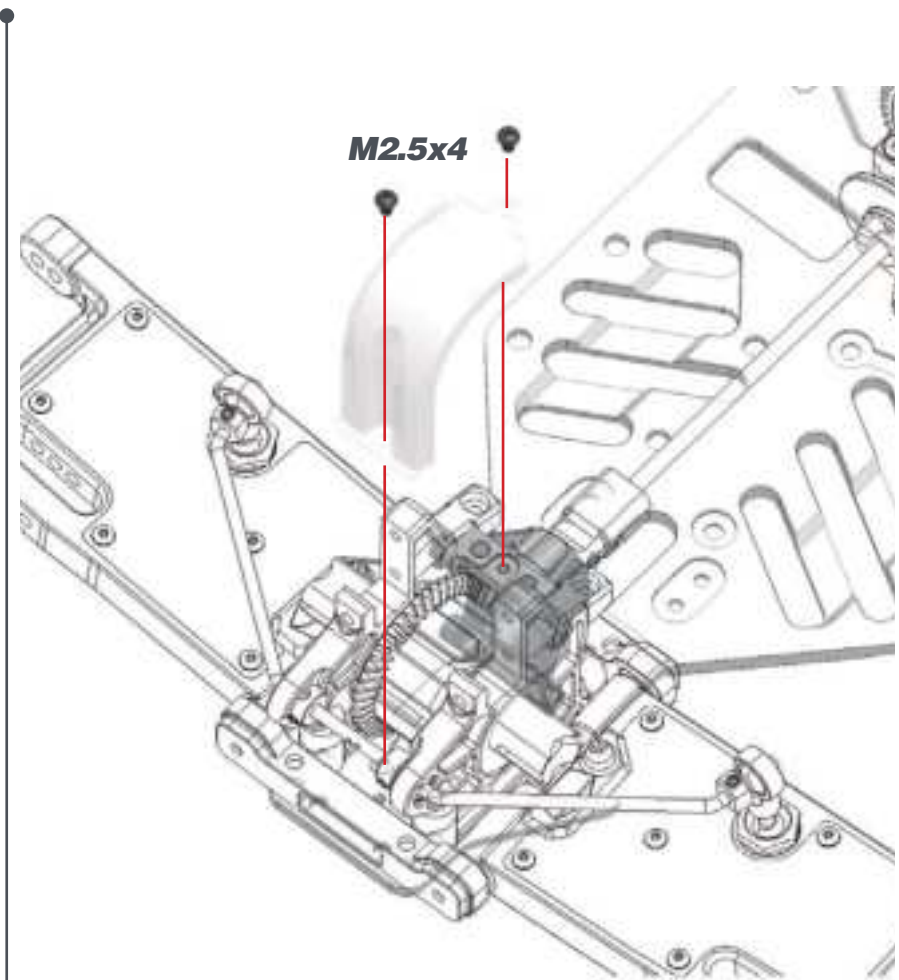


17.2



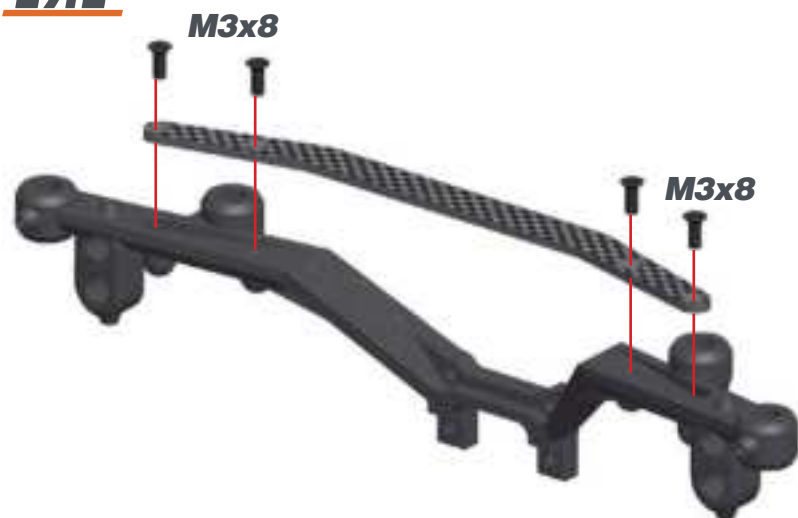
STEP 18

BAG 5

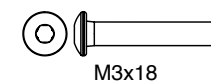
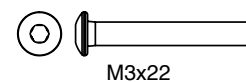
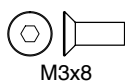
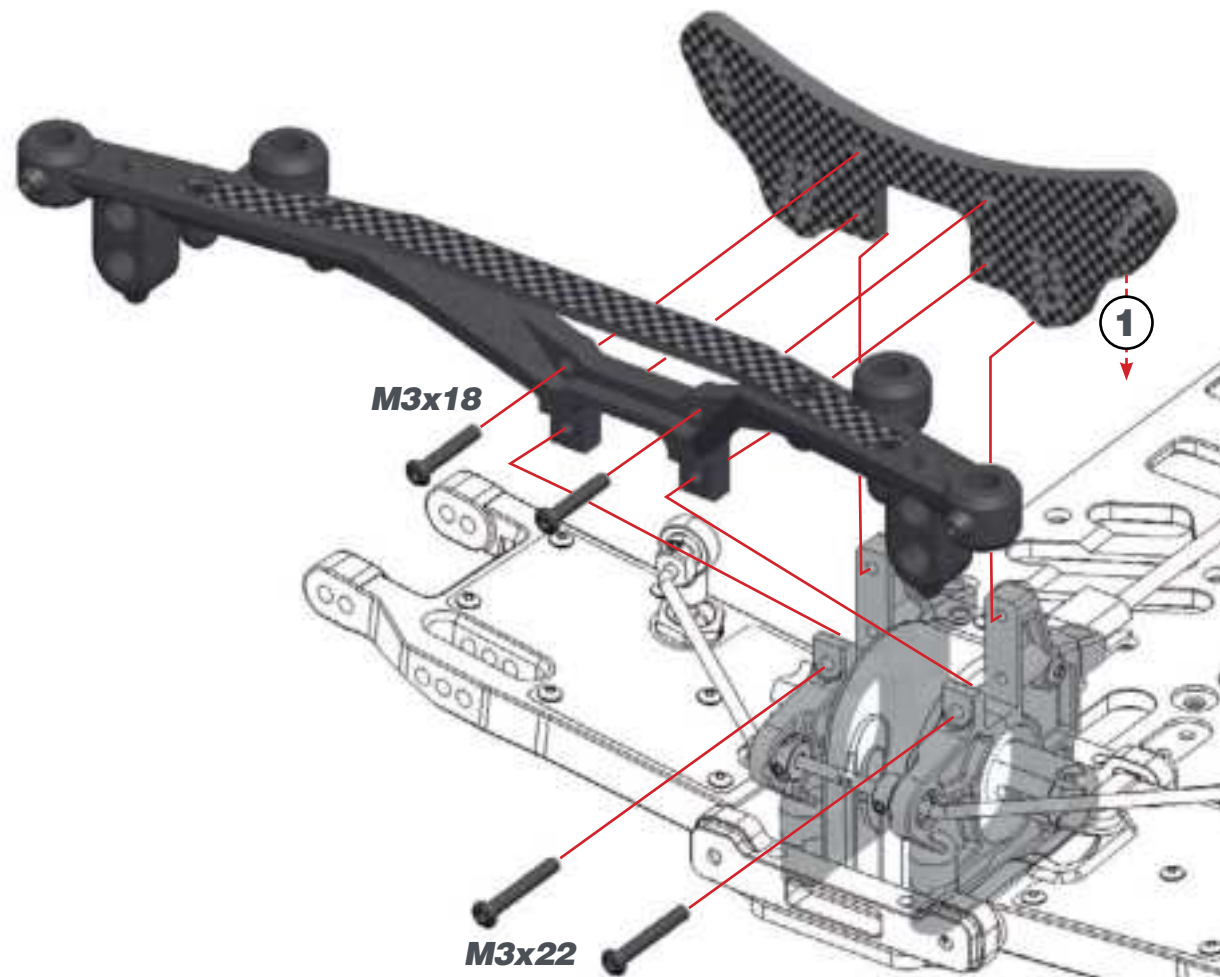


STEP 19

19.1



19.2



STEP 20

BAG 6

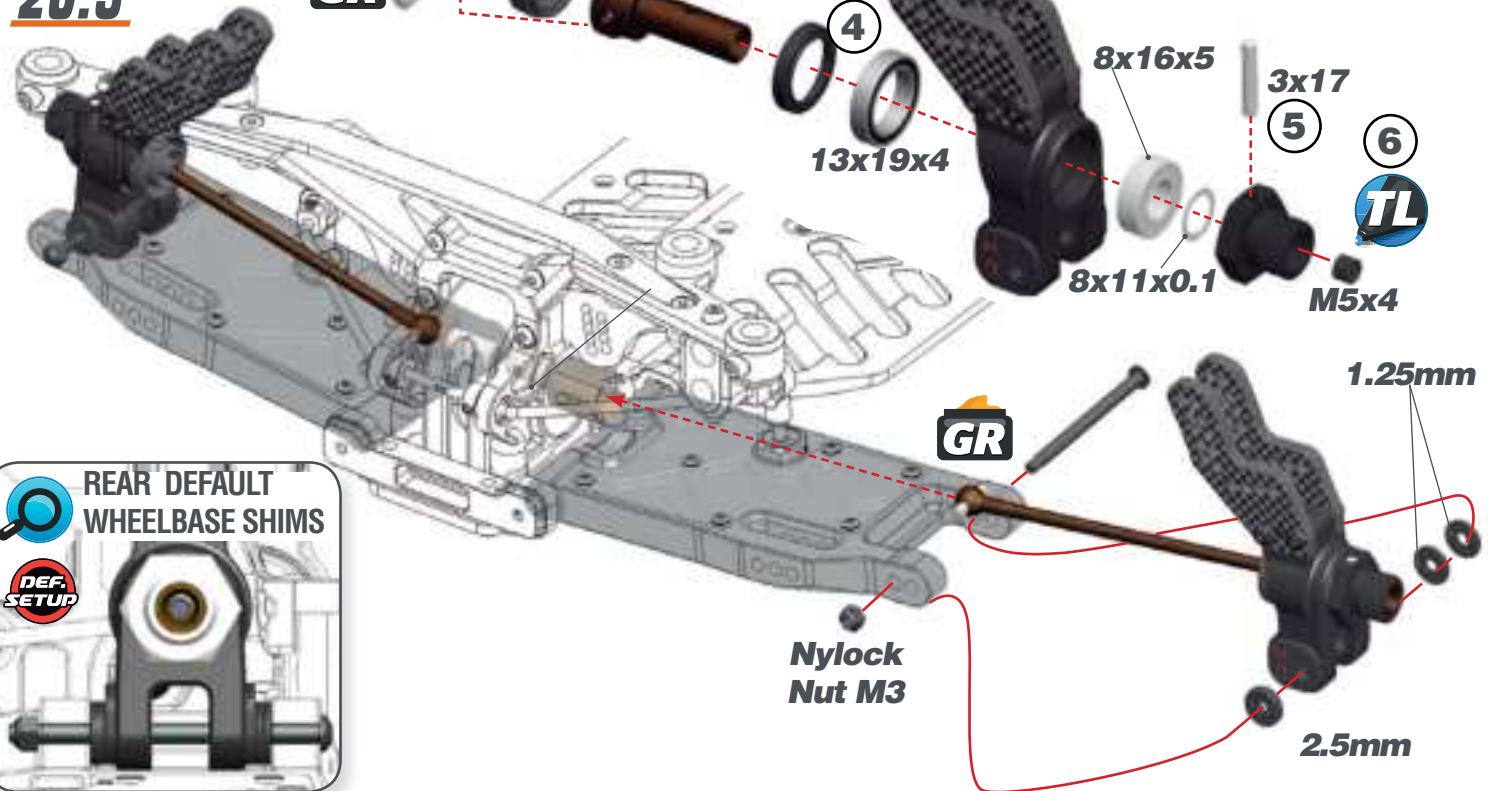
20.1 L=R



20.2 L=R



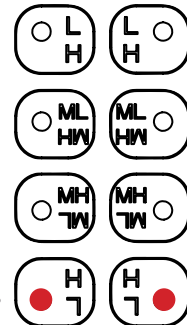
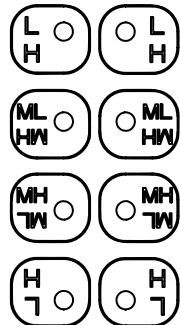
20.3



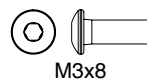
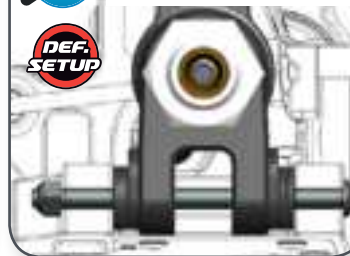
REAR UPRIGHT ROLL CENTER INSERTS CHART

NARROW

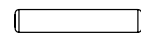
WIDE



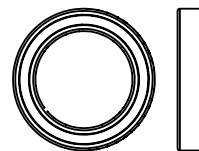
REAR DEFAULT WHEELBASE SHIMS



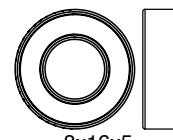
M3x8



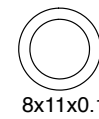
3x17



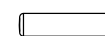
13x19x4



8x16x5



8x11x0.1



3x13



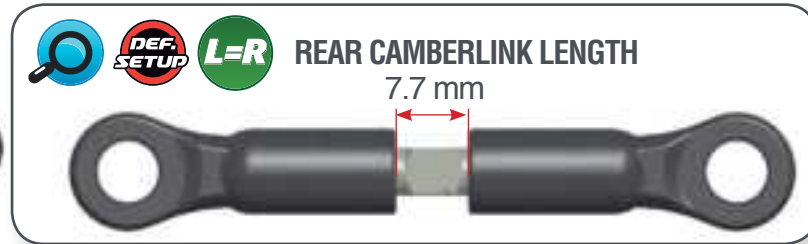
M5x4



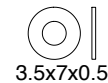
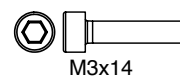
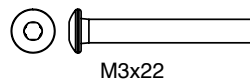
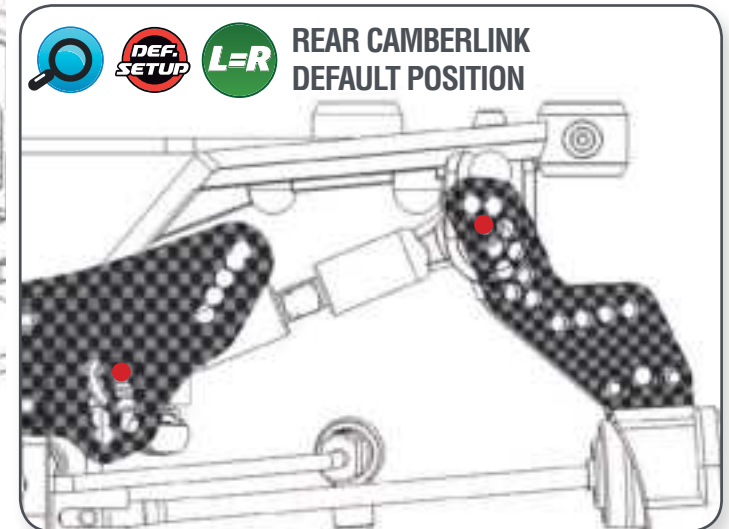
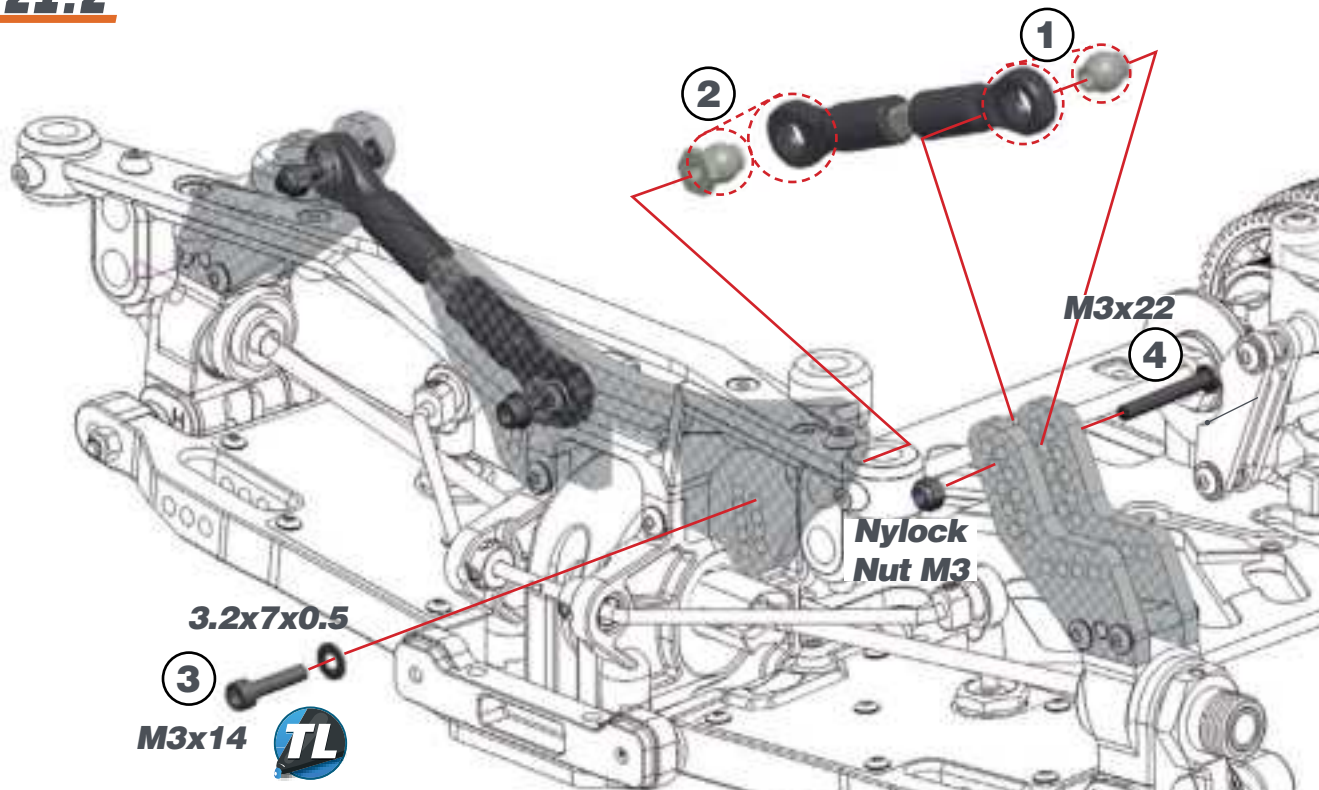
Nylock Nut M3

STEP 21

21.1

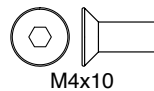
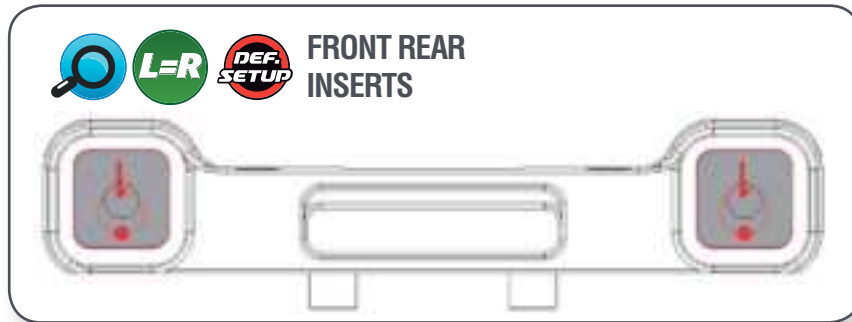
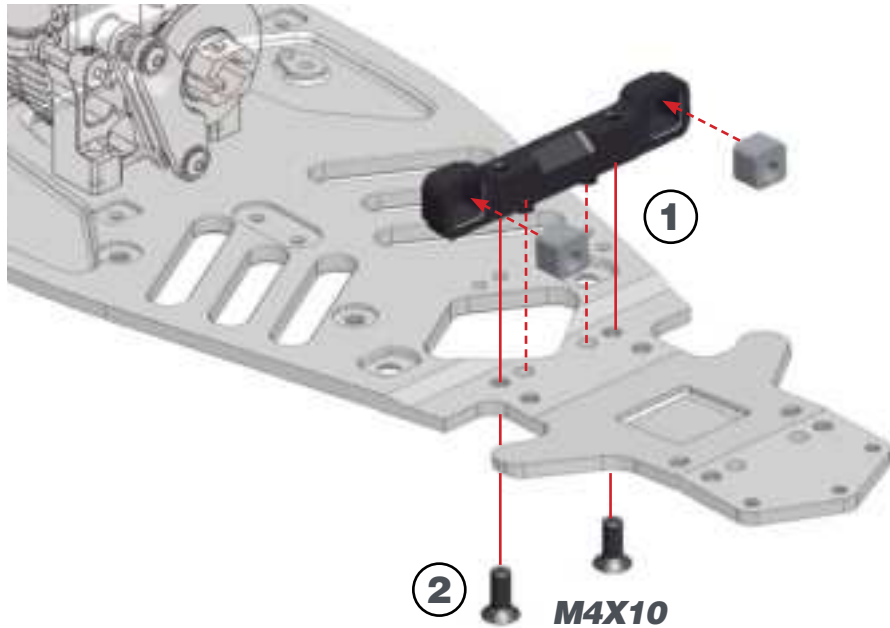


21.2

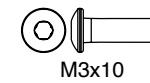
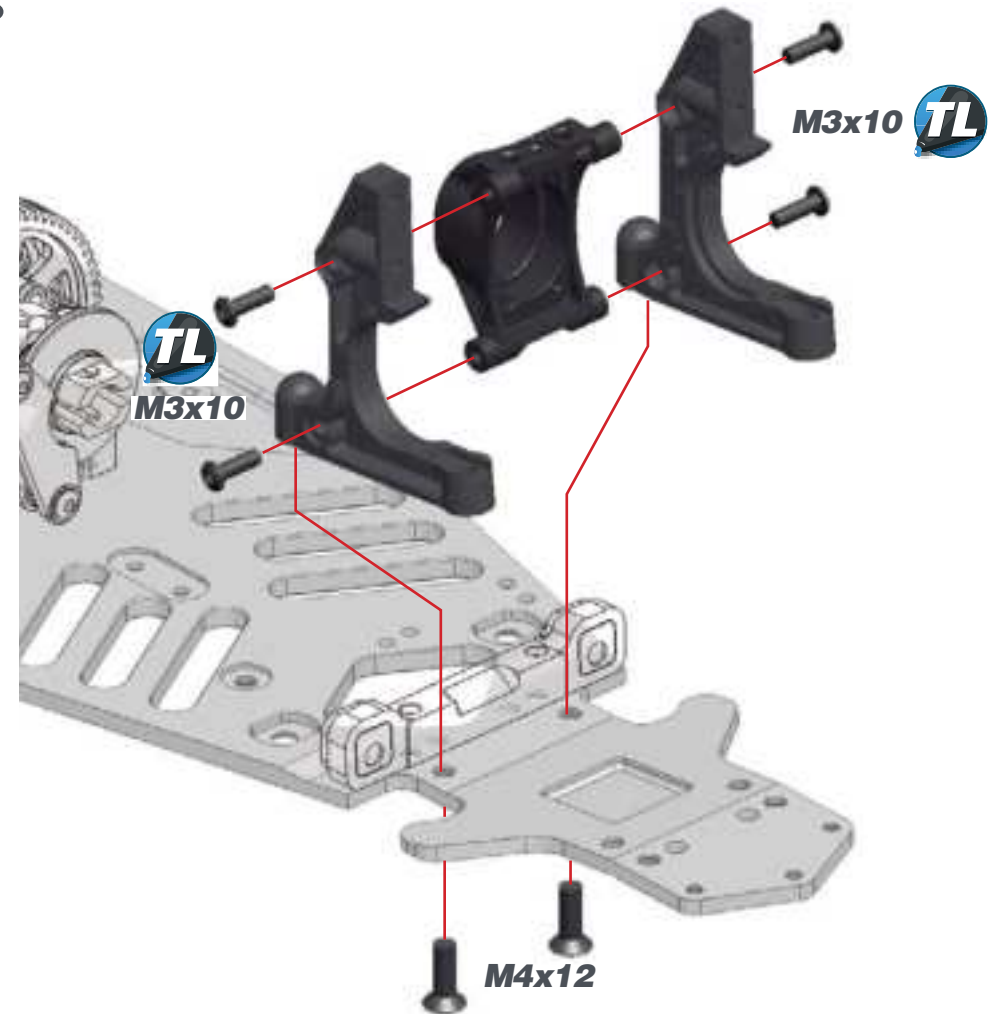


STEP 22

BAG 7

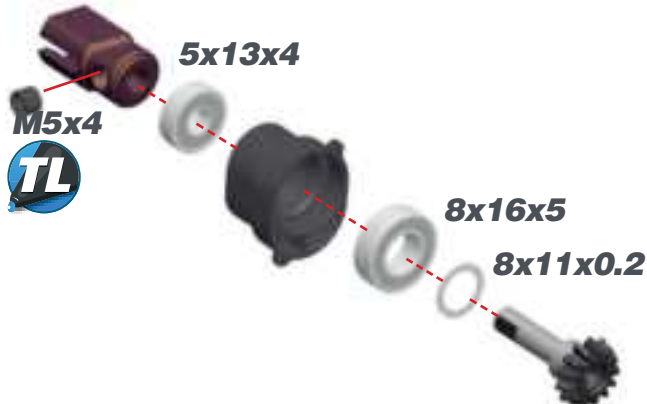


STEP 23



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.

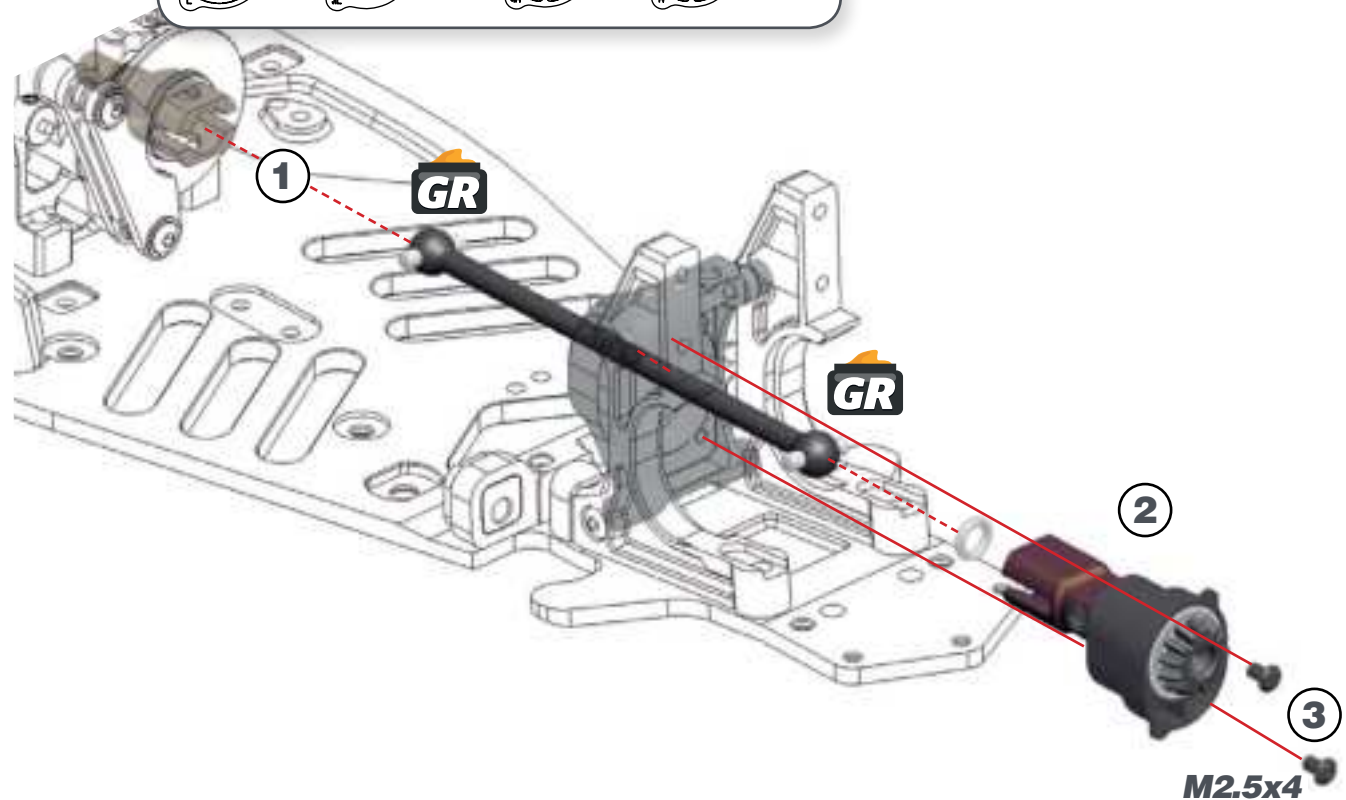
24.2



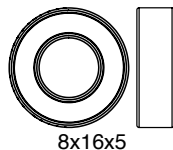
INDRIVE BRACKETS CHART

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

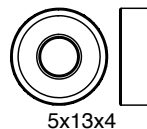
LOW MID LOW MID HIGH HIGH



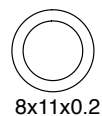
M5x4



8x16x5



5x13x4



8x11x0.2



M2.5x4

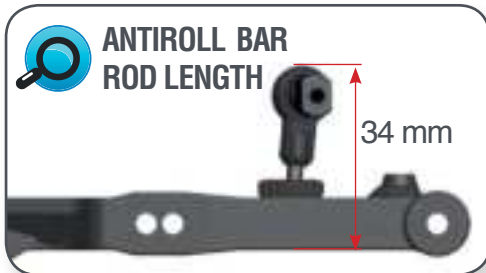
STEP 25

BAG 8

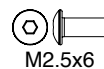
25.1



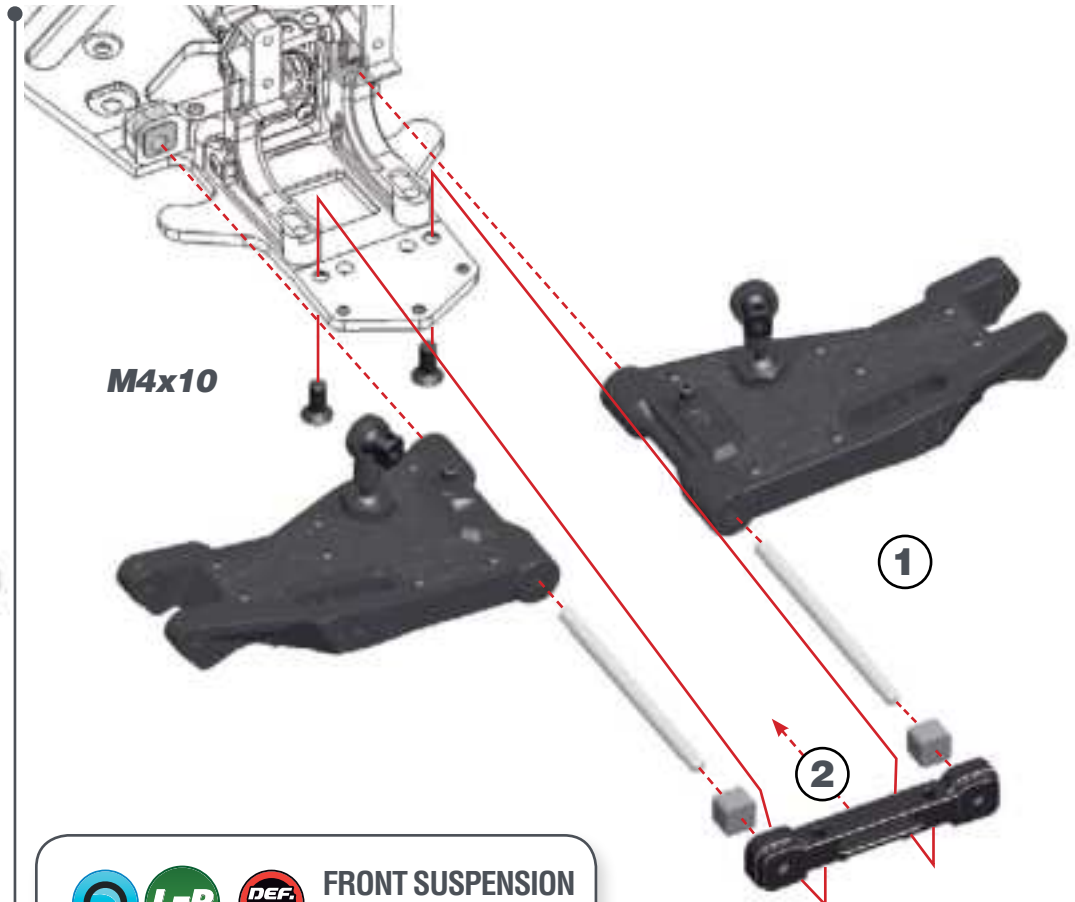
Tighten anti-roll bar cap until there is no play, and it moves freely.



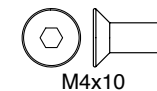
25.2



STEP 26

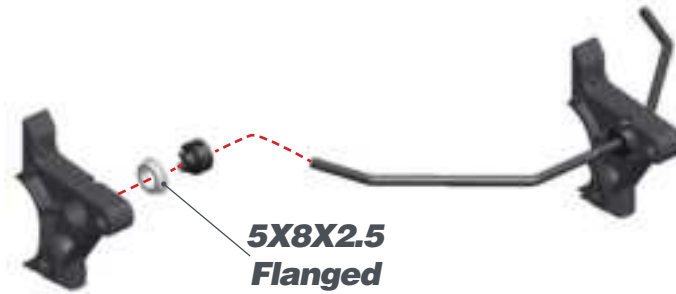


FRONT SUSPENSION KICKUP INSERTS

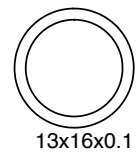
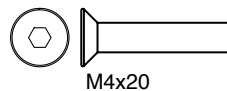
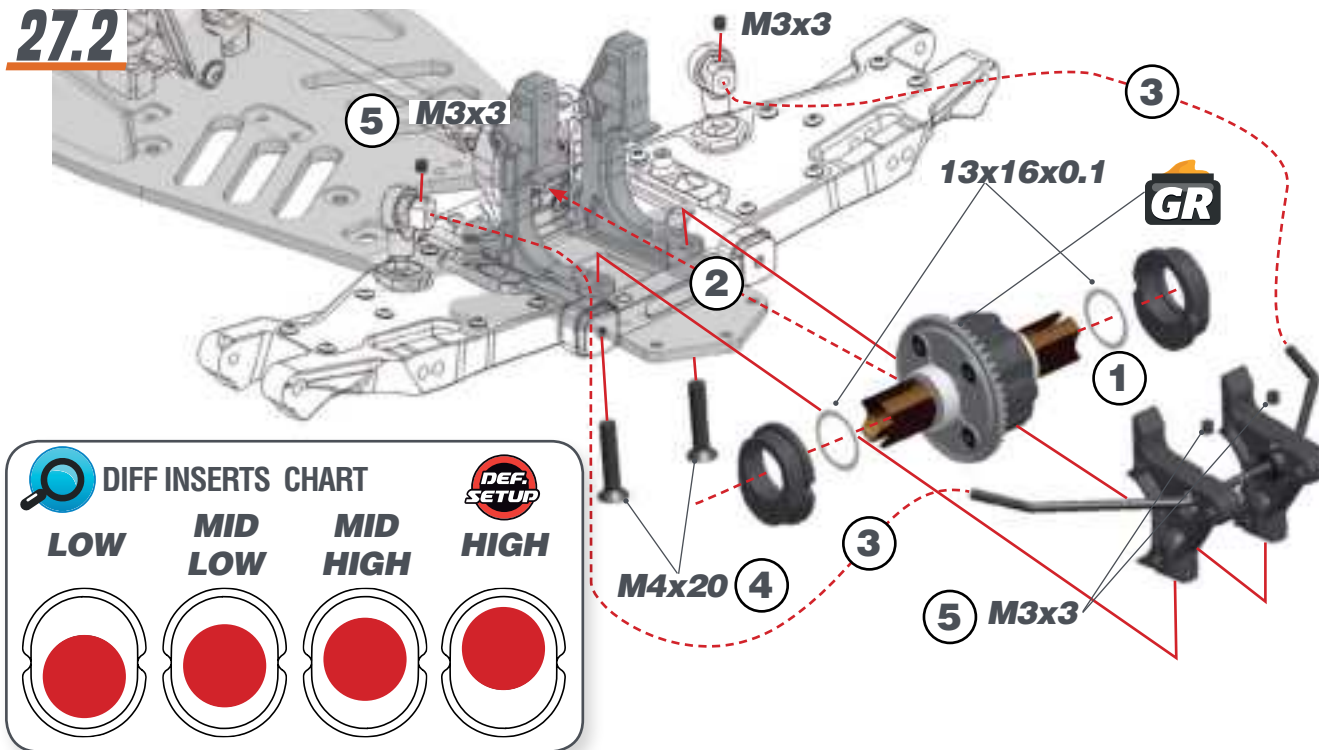


STEP 27

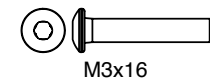
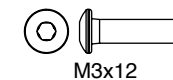
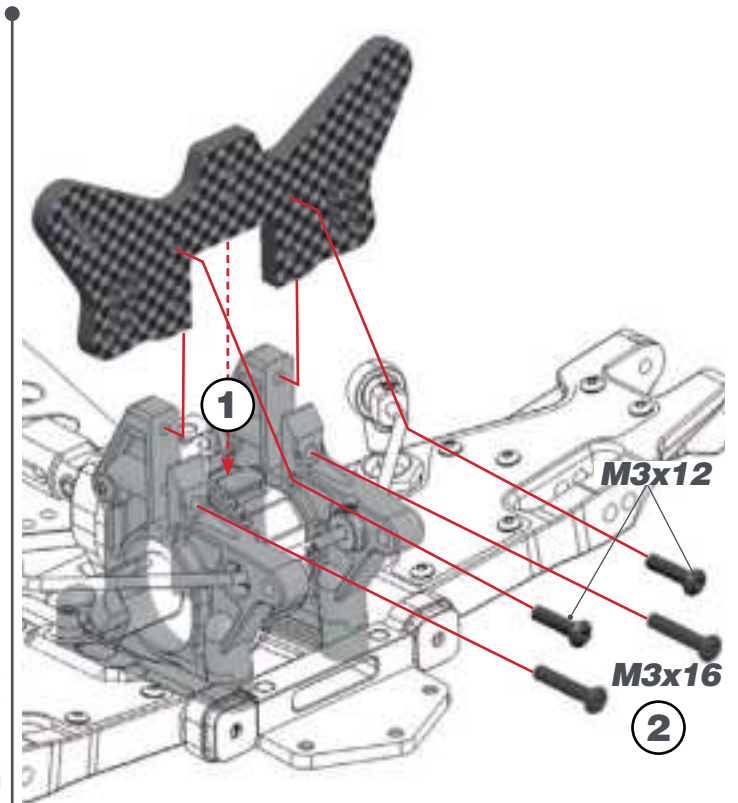
27.1

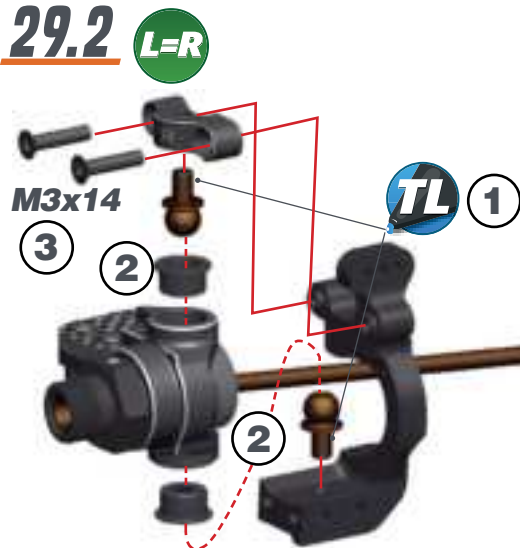


27.2

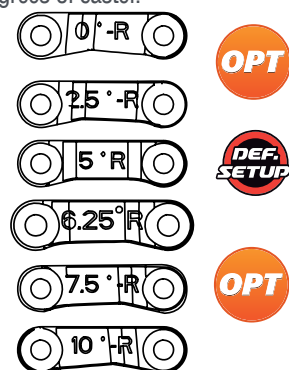
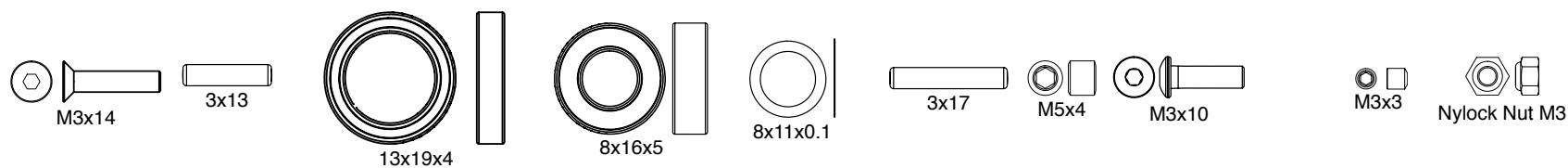


STEP 28



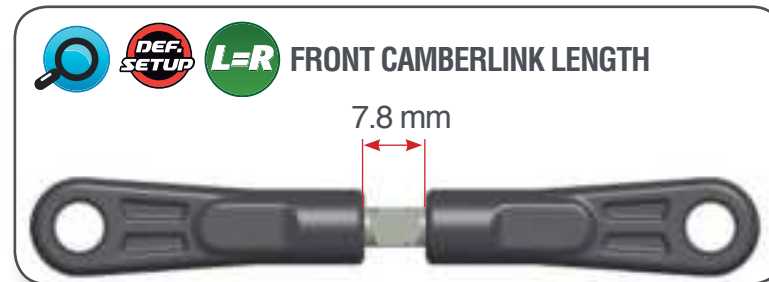


Caster angle is easily adjustable changing the caster insrters showed below from 0 to 10 degrees of caster.

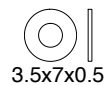
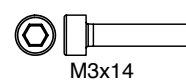
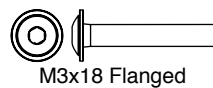
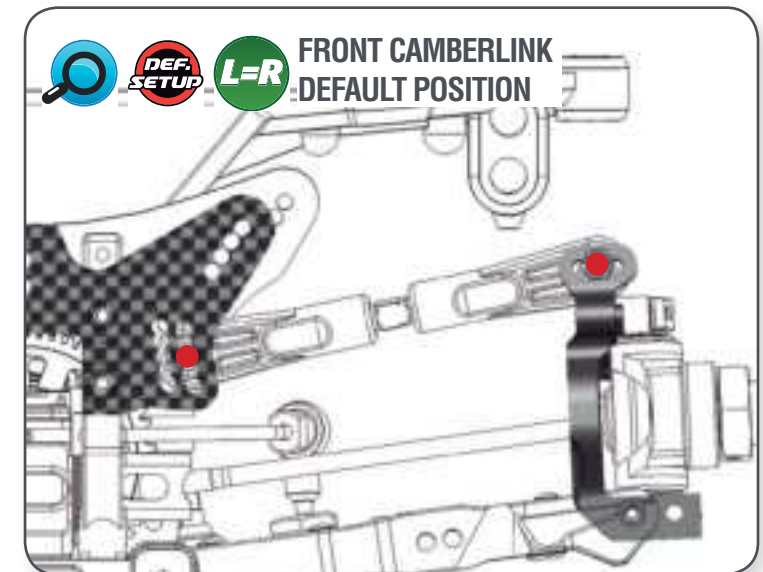
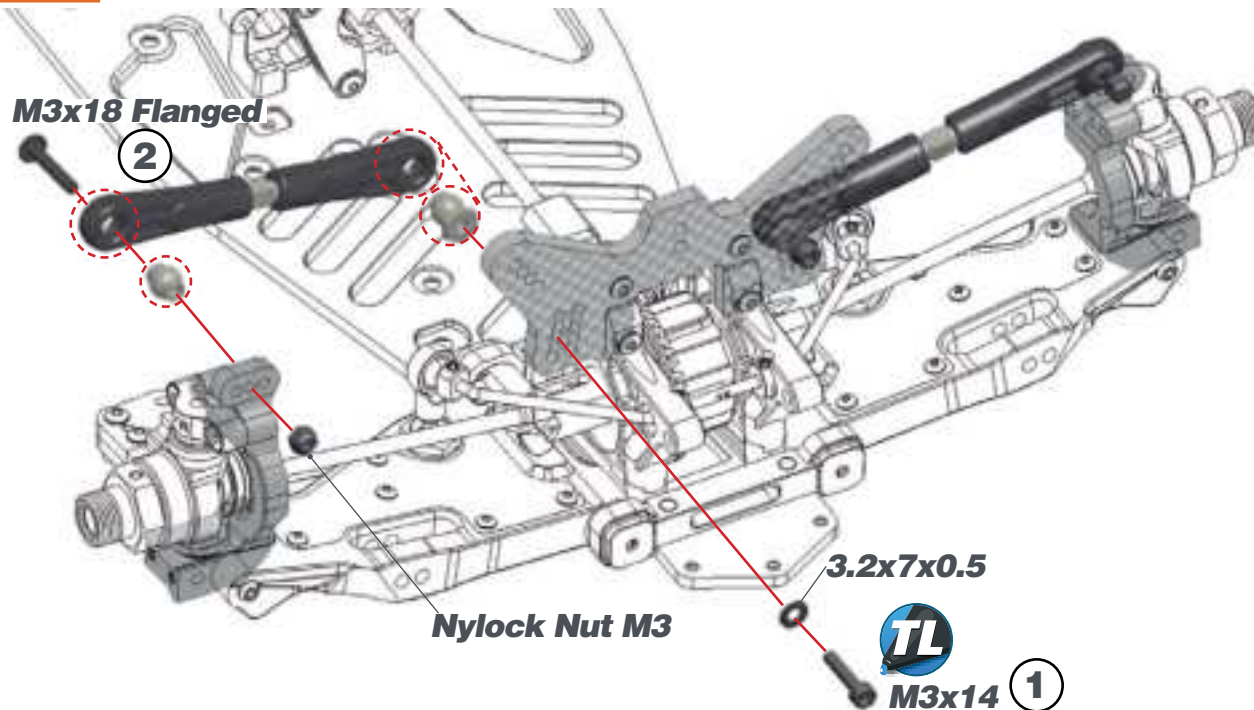
[illegible]

STEP 30

30.1



30.2



STEERING ASSEMBLY

SRX8GT

SERPENT

STEP 31

BAG 10

31.1

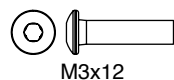
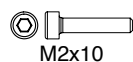


31.2



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

4.5 mm



STEP 32

32.1

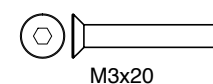
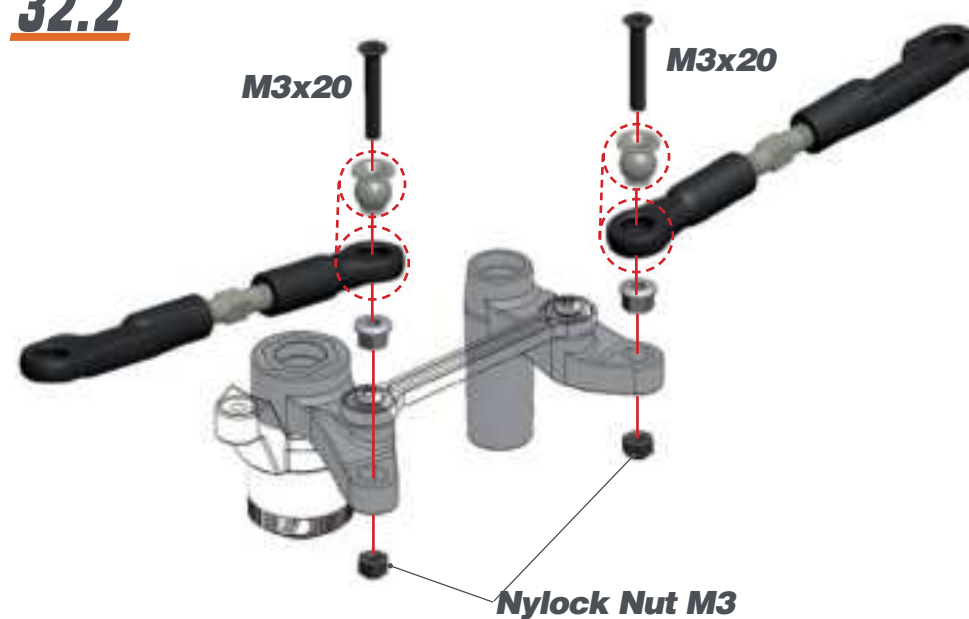


STEERING TRACKROD LENGTH

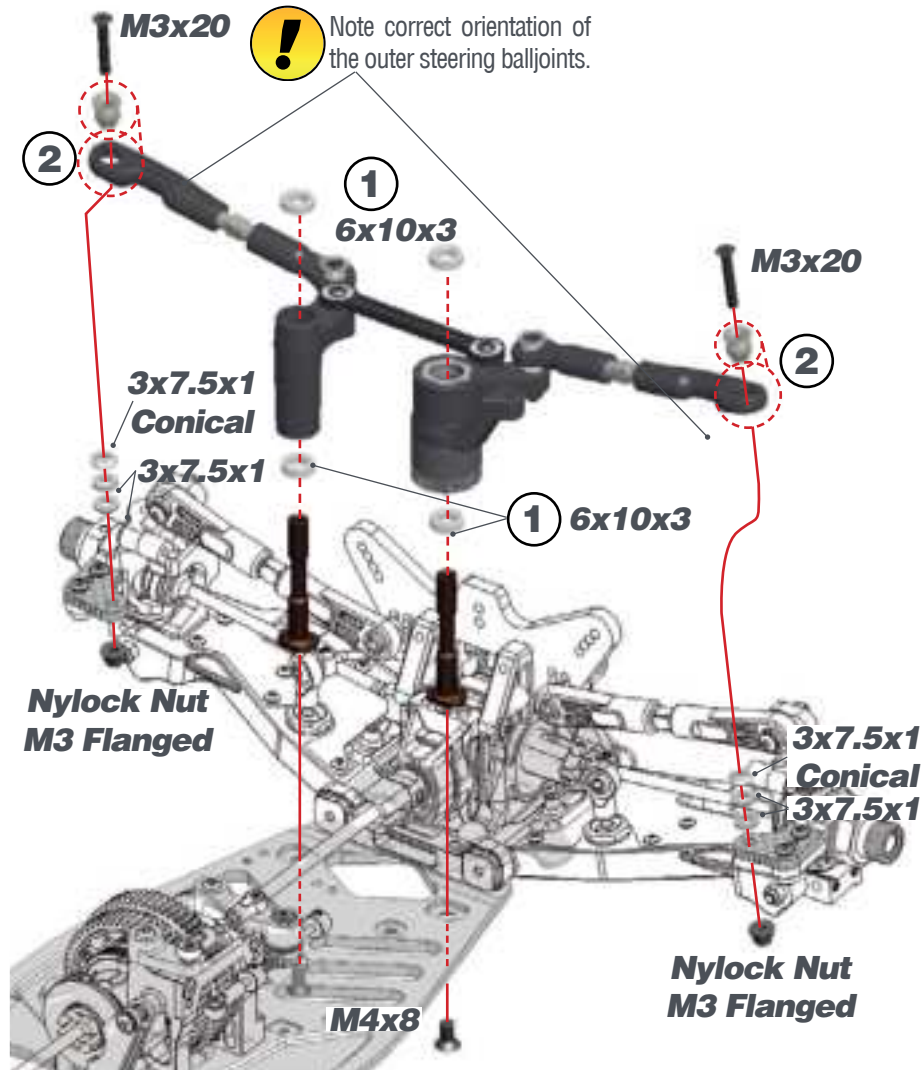


12 mm

32.2

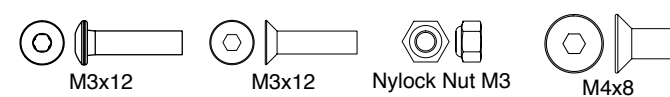
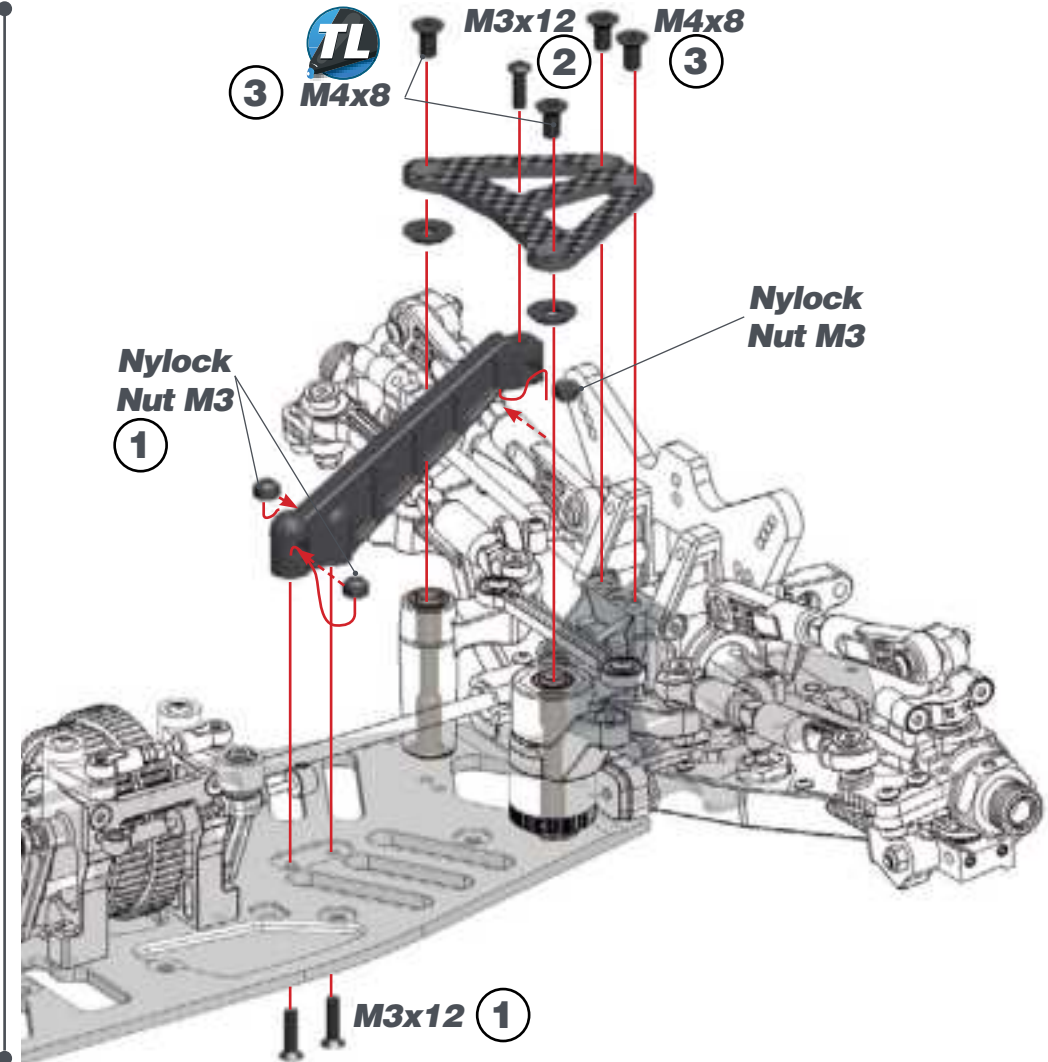


STEP 33

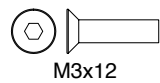
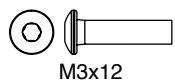
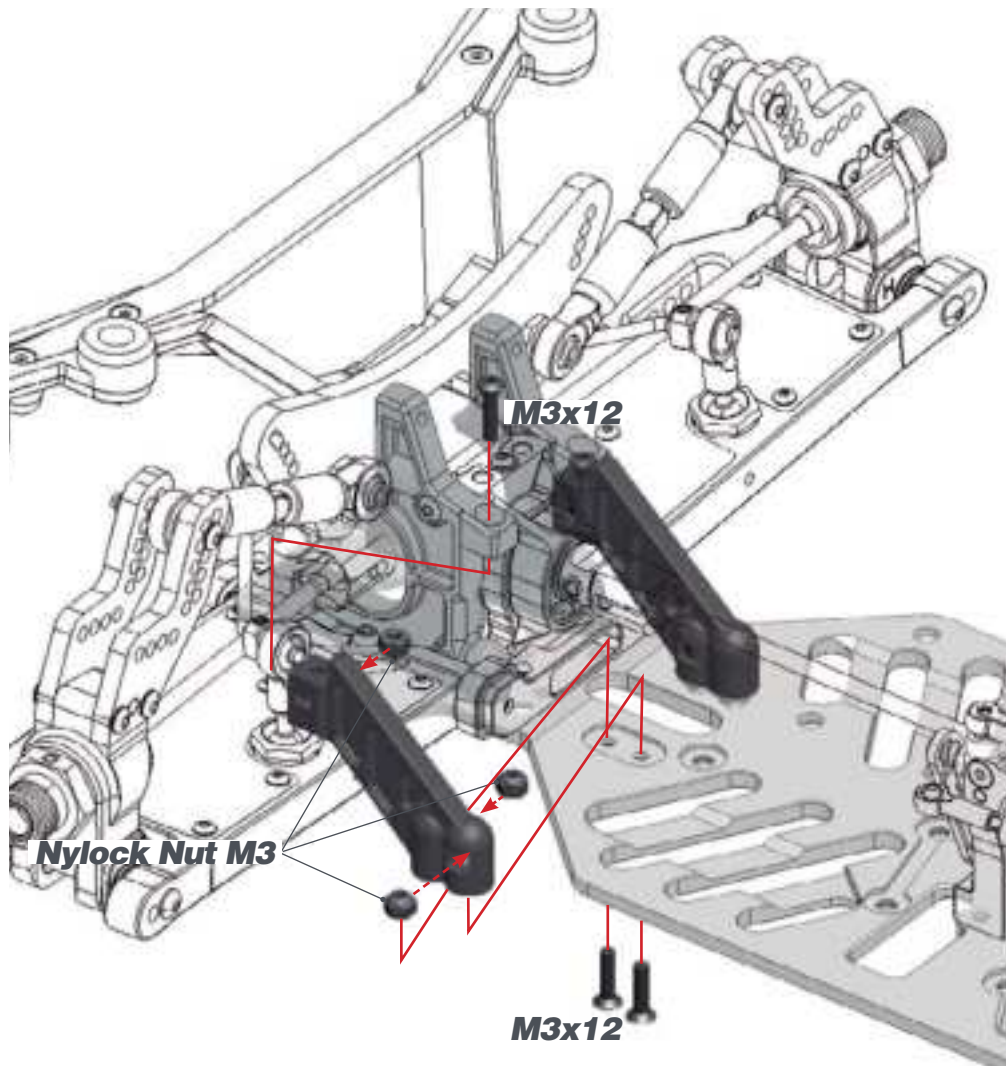


STEP 34

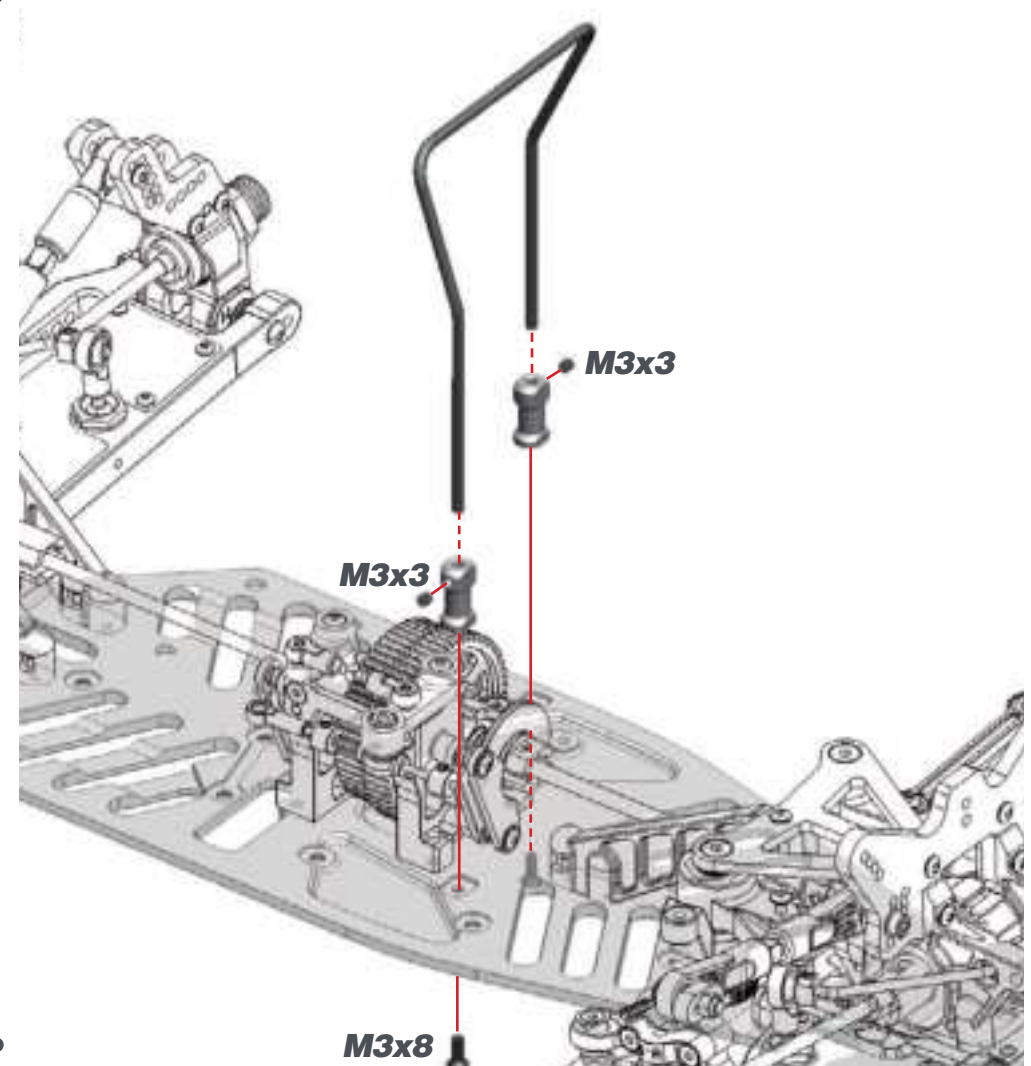
BAG 11



STEP 35

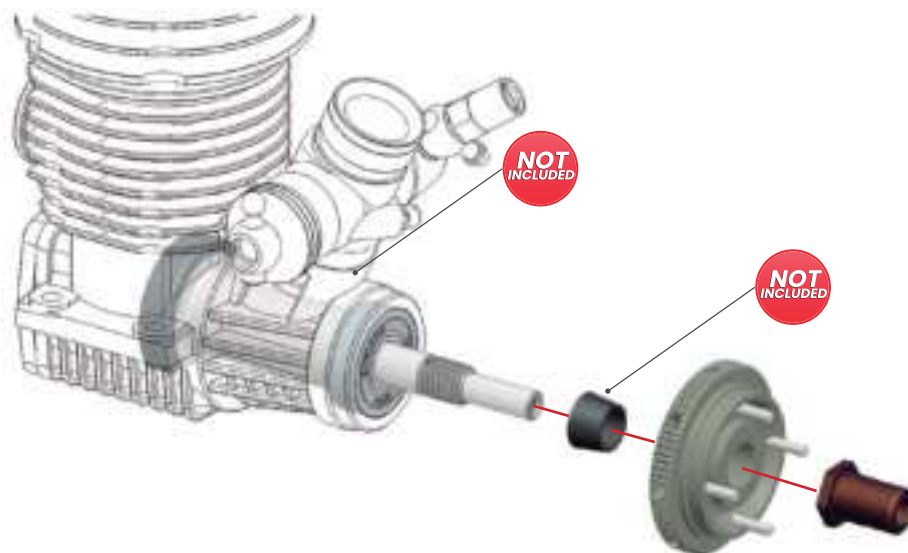


STEP 36



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.

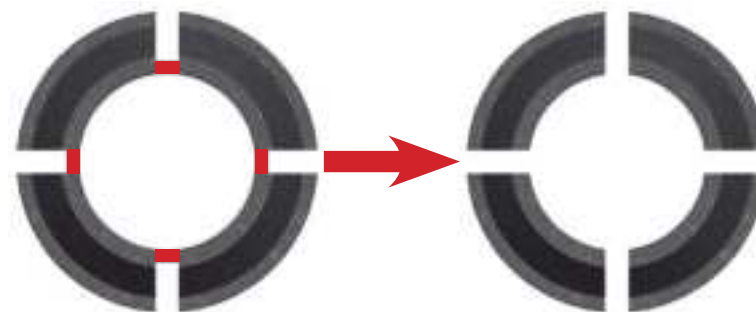
2- The holes in the side of the flywheel can be used to block the flywheel (with short allen tool) through the bottom of the chassis, when the engine/clutch is mounted in the car. It's easier to tighten or loosen the pre-load on the clutch spring that way.

STEP 38

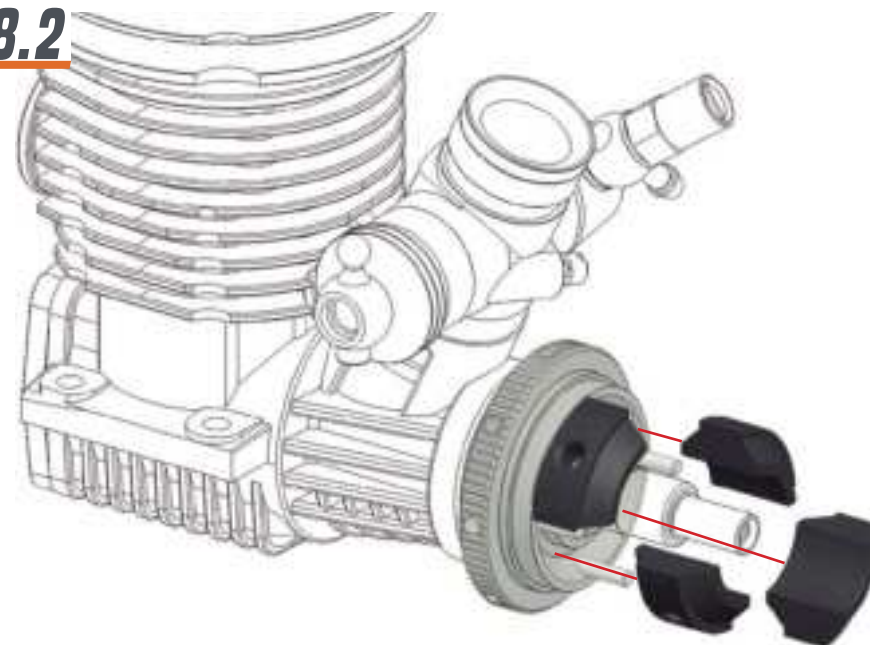
38.1



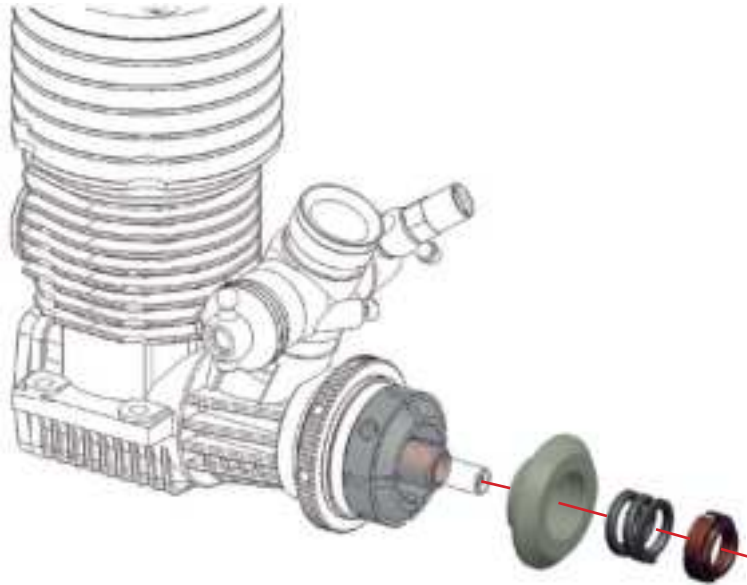
Before to assemble clutch shoes, carefully remove the red area and smoothen the cut surface in order to have four clutch shoes with the same shape.



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



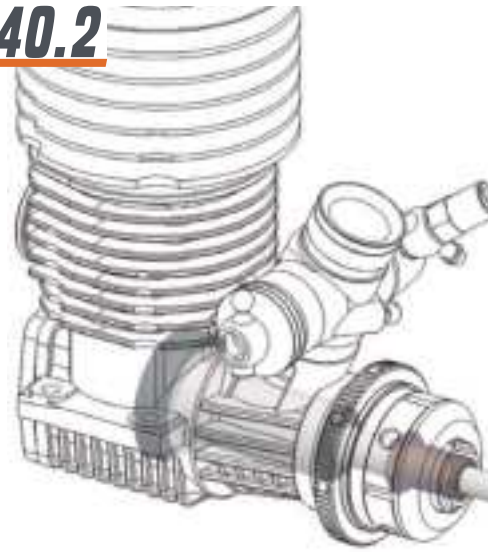
Note the orientation of the gears



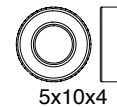
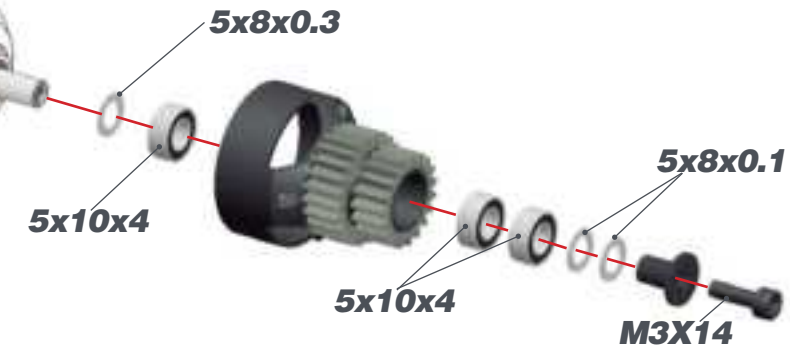
2ND

1ST

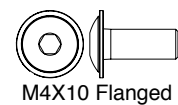
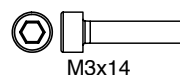
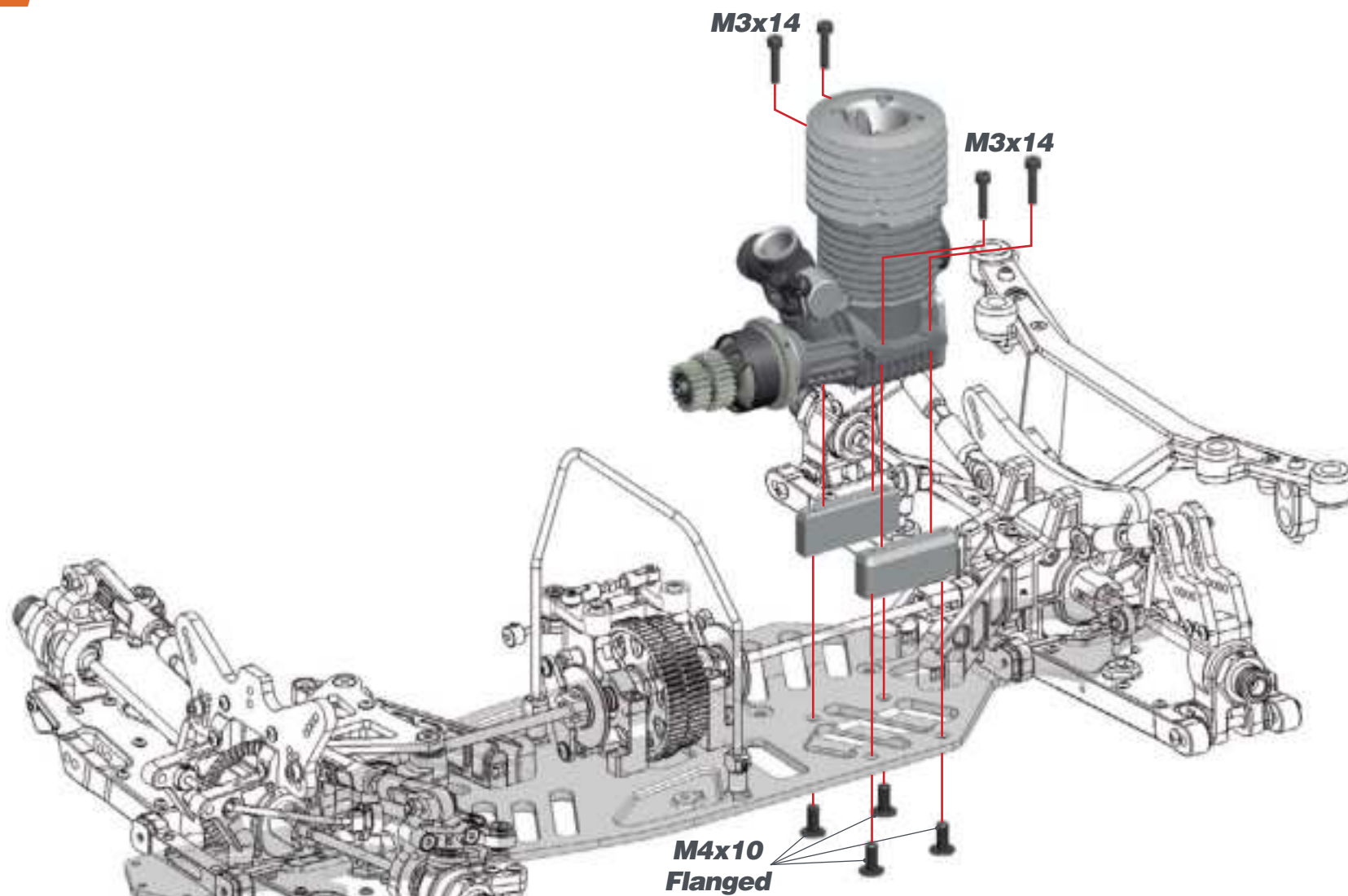
40.2



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



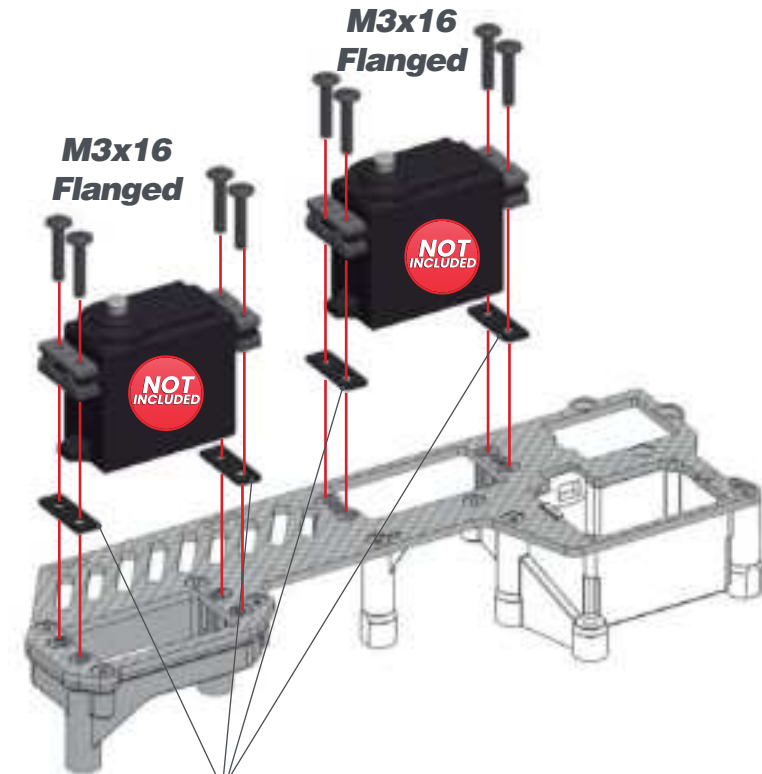
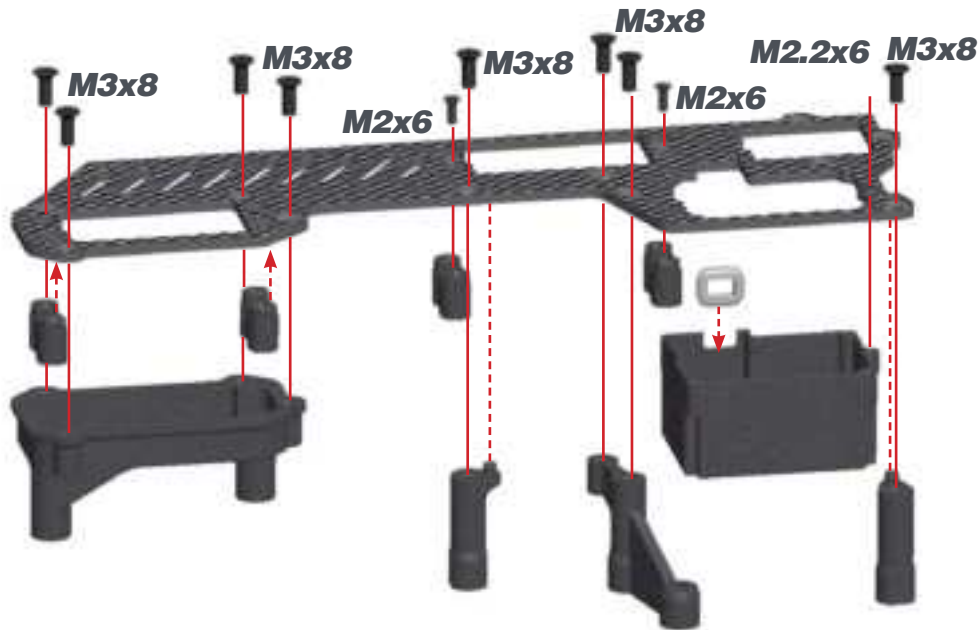
STEP 41



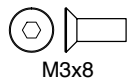
STEP 42

BAG 13

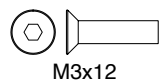
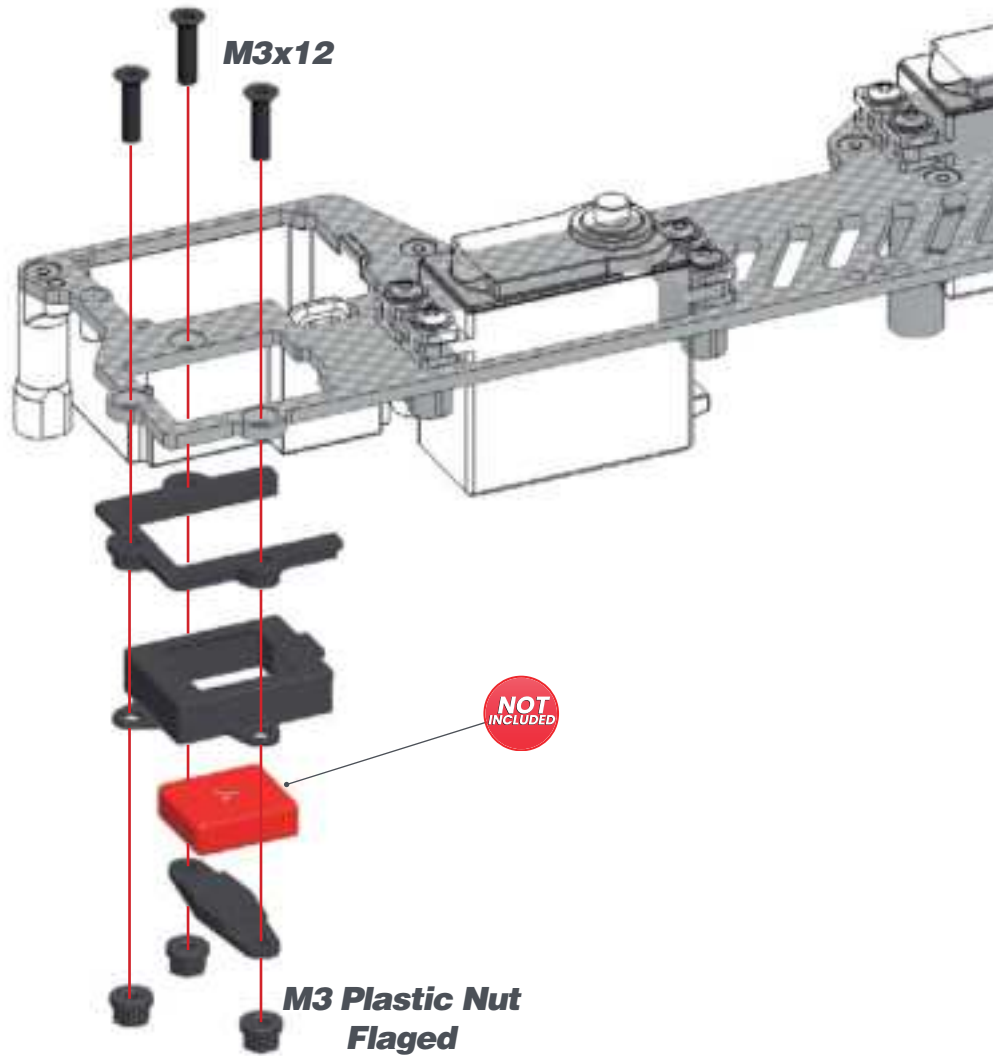
STEP 43



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.

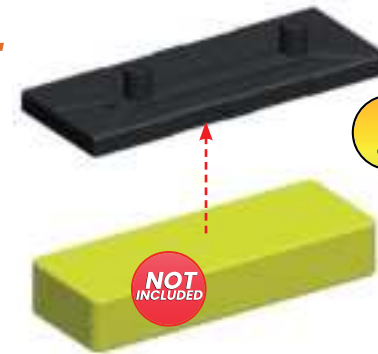


STEP 44



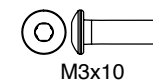
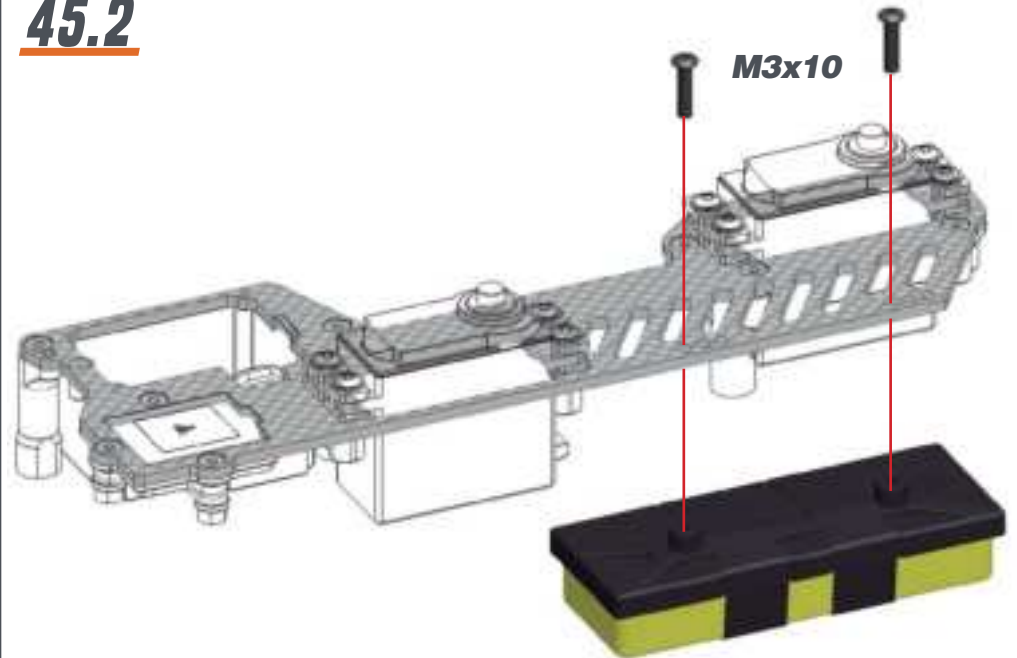
STEP 45

45.1



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

45.2

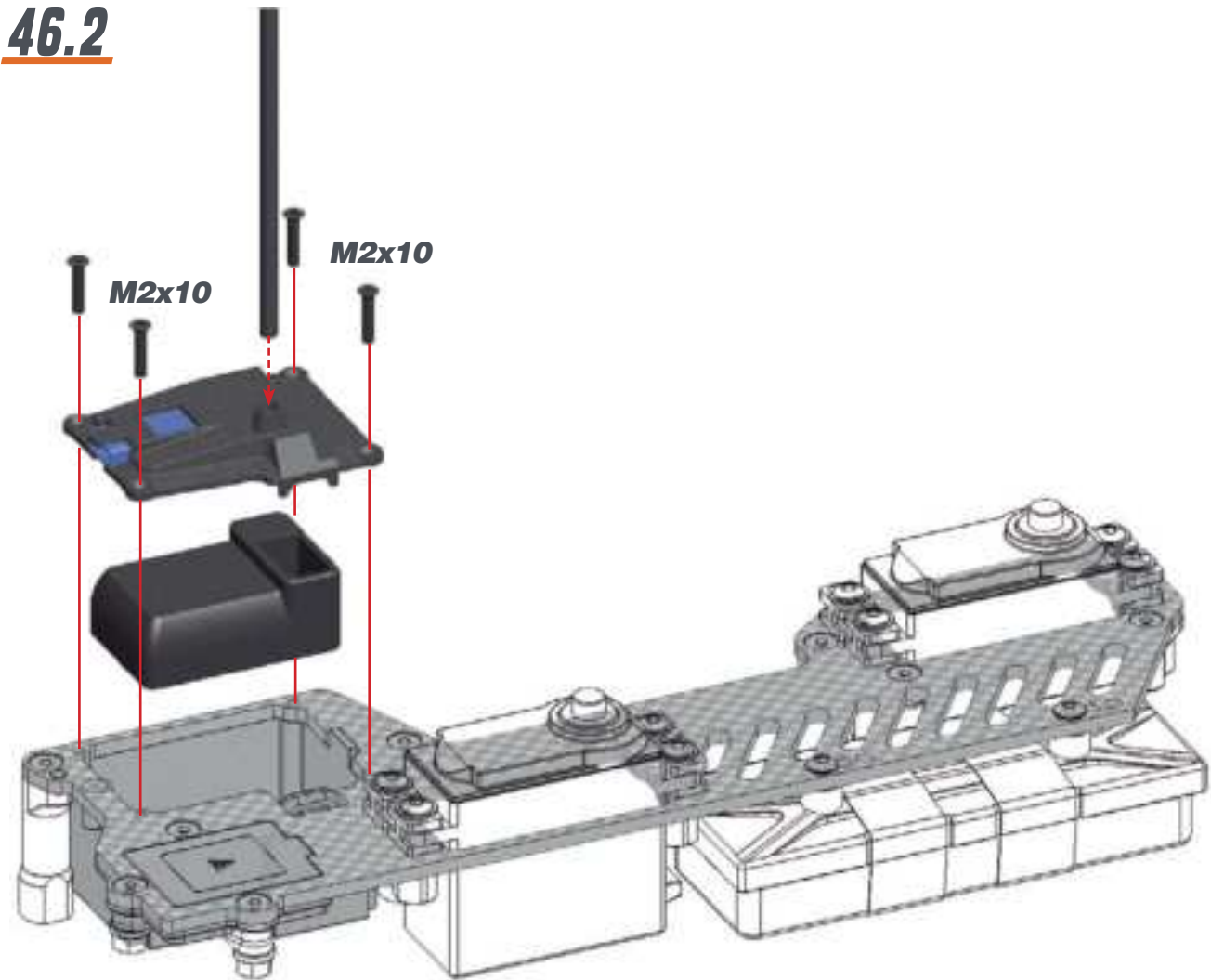


STEP 46

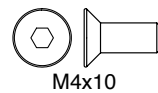
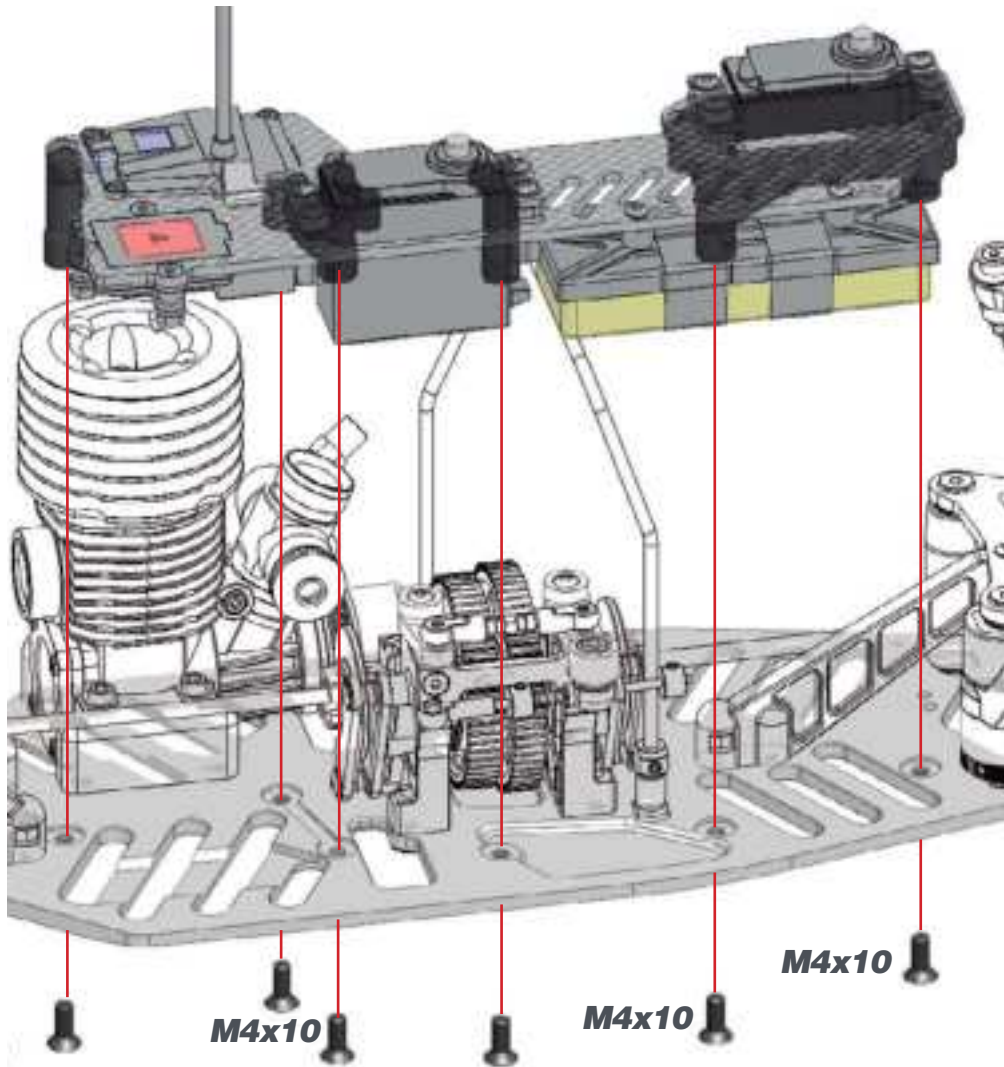
46.1



46.2



STEP 47



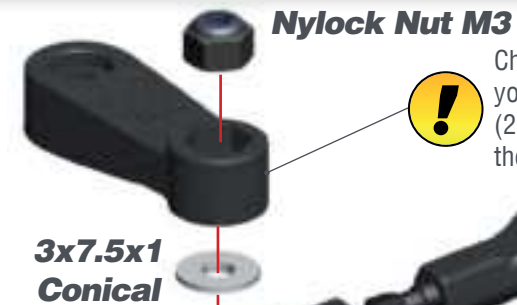
STEP 48



STEERING LINK LENGTH

Between different servo brands there could be slight differences.

8 mm



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



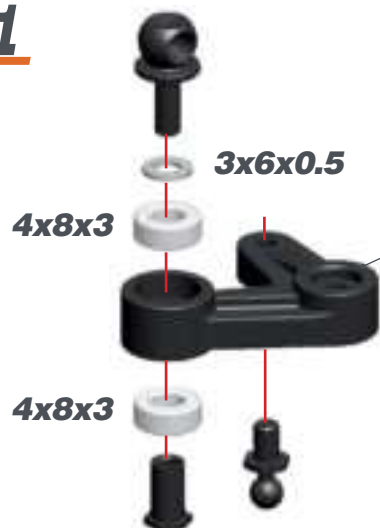
3x7.5x1 Conical



Nylock Nut M3

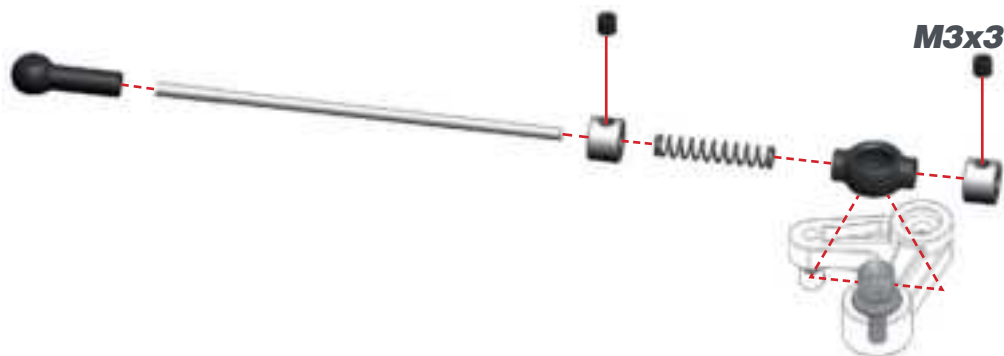
STEP 49

49.1

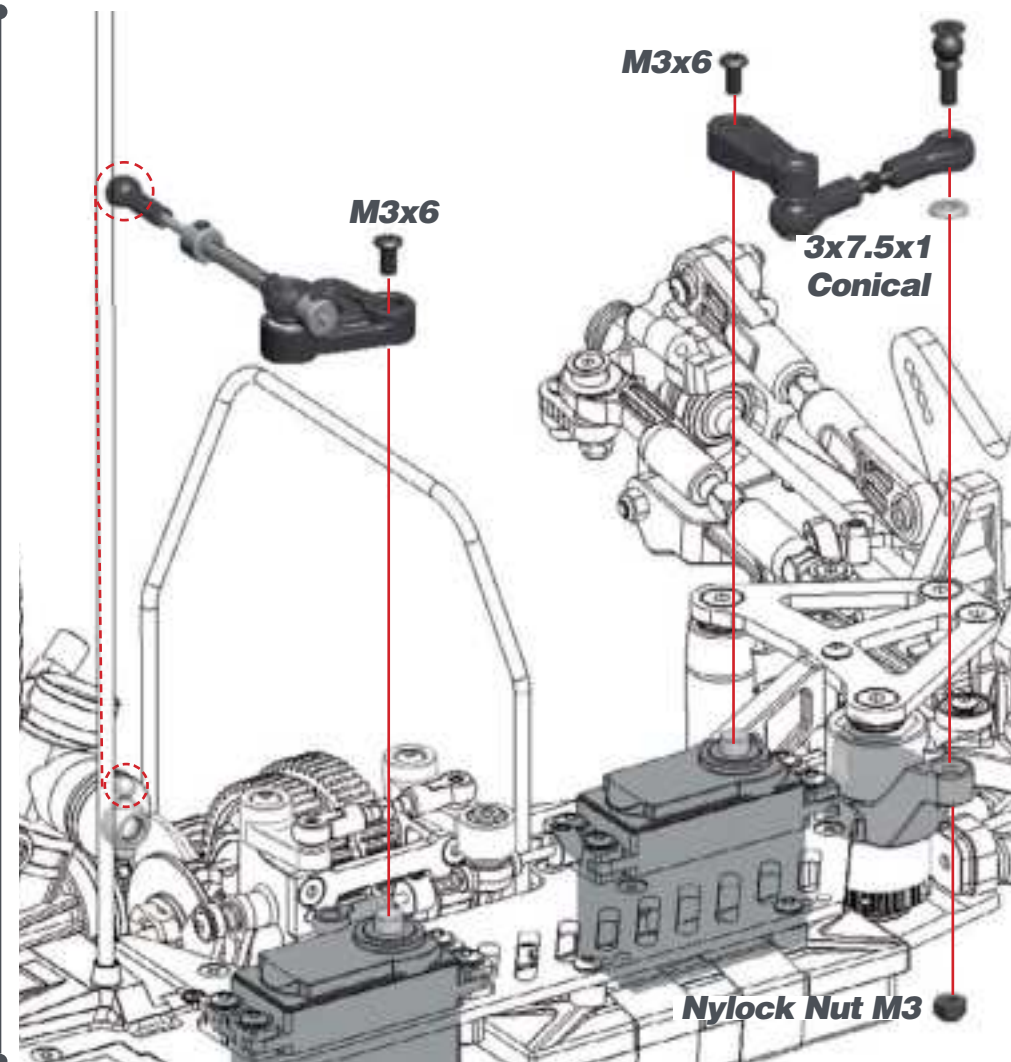


Check how many teeth your servo spline has (23, 24 or 25) and use the right lever.

49.2



STEP 50



4x8x3



M3x3



3x6x0.5



M3x6



3x7.5x1 Conical

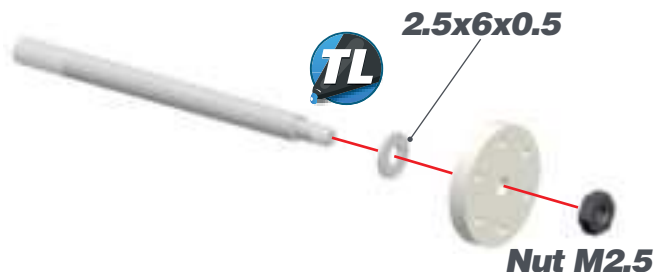


Nylock Nut M3

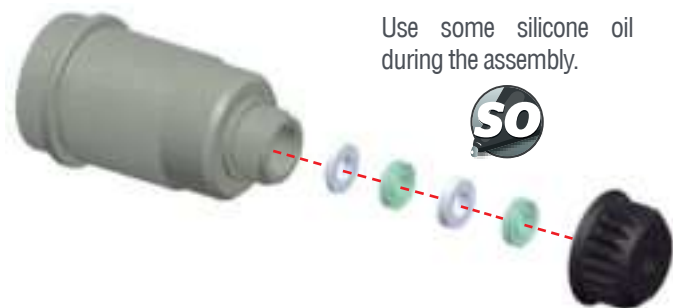
STEP 51

SHOCK BAG

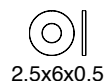
51.1



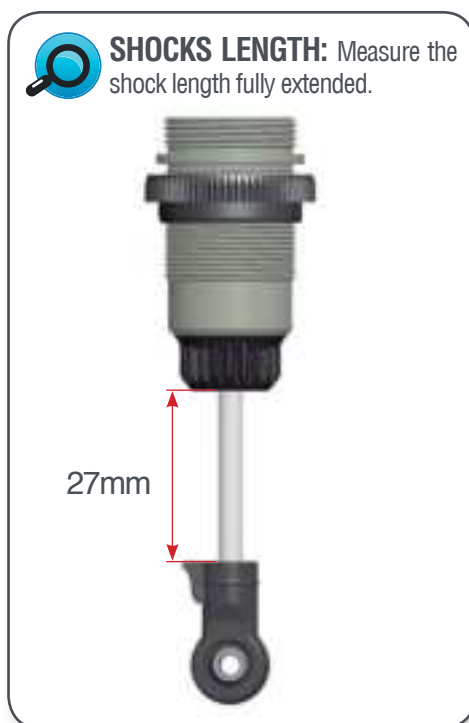
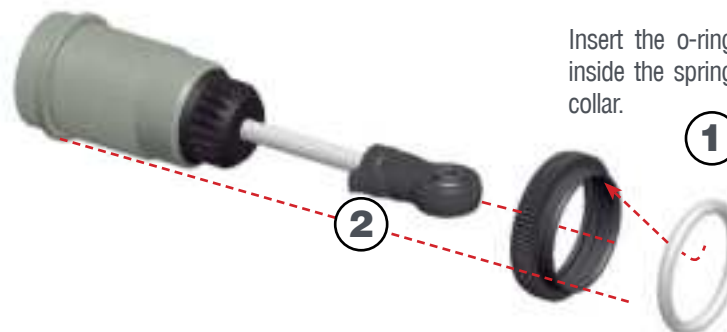
51.2



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



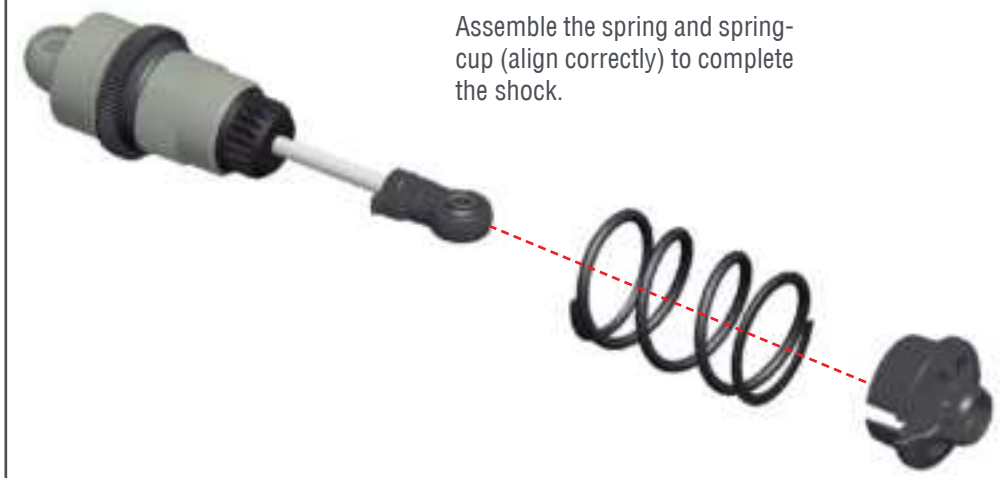
STEP 55

- 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.

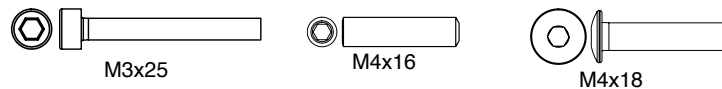
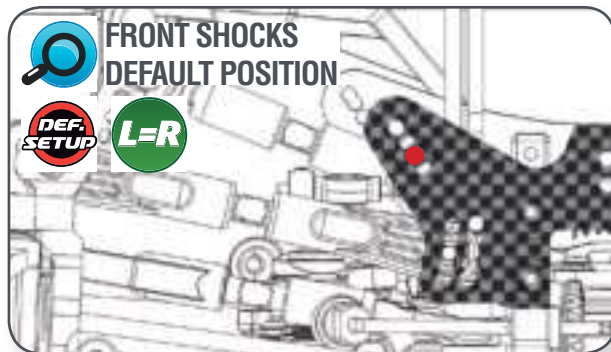
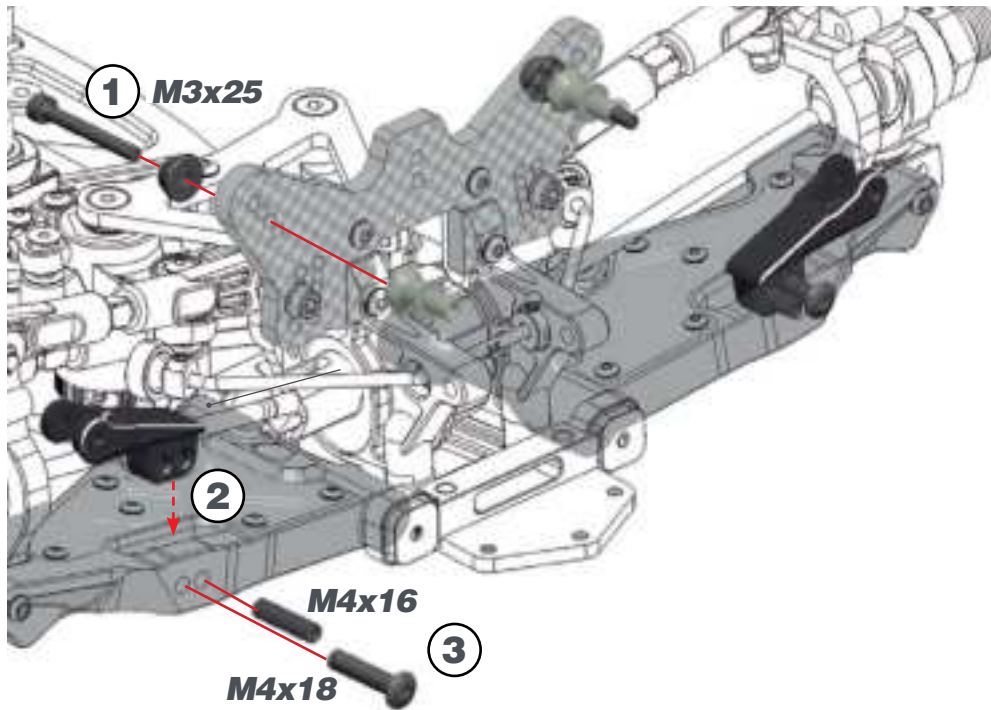


STEP 56

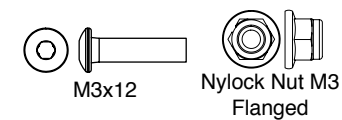
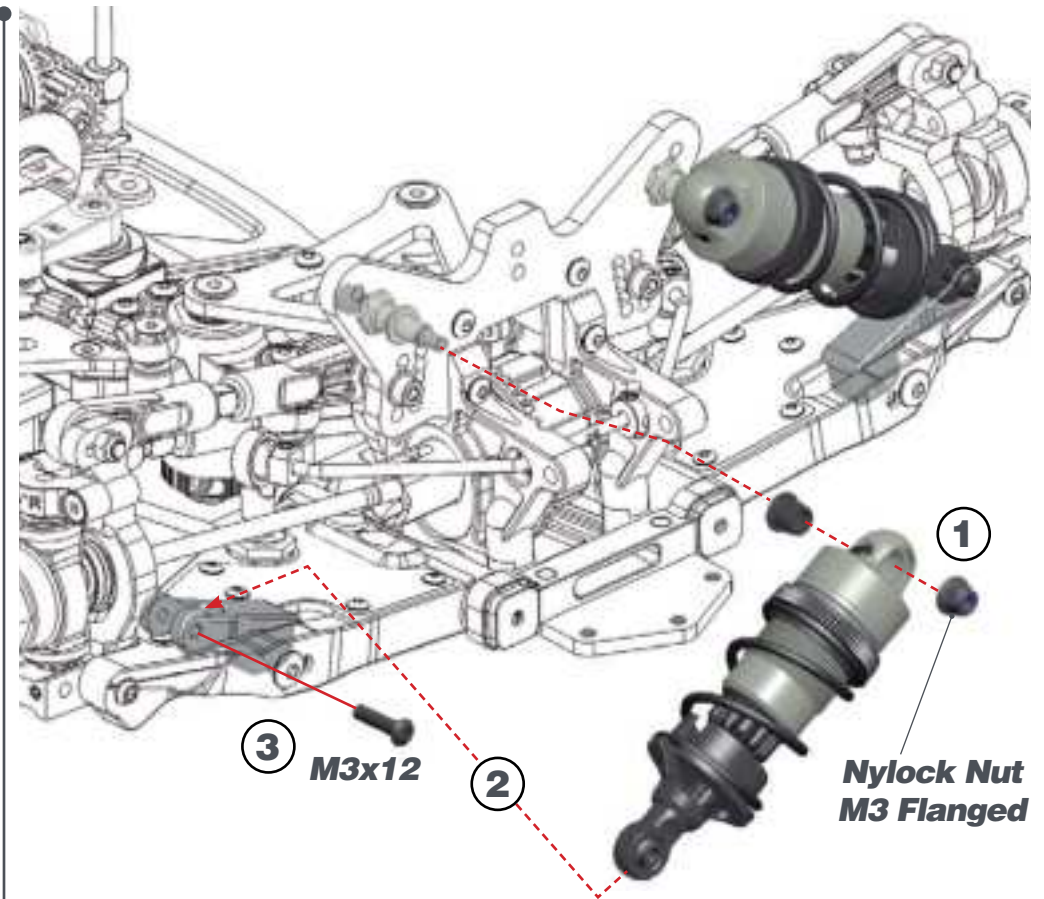
Assemble the spring and spring-cup (align correctly) to complete the shock.



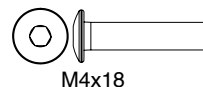
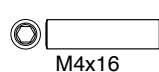
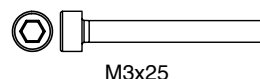
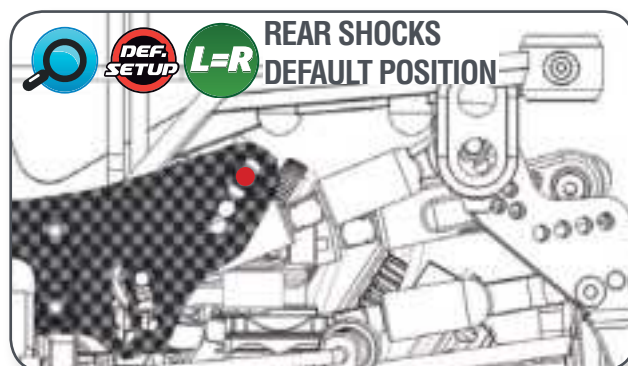
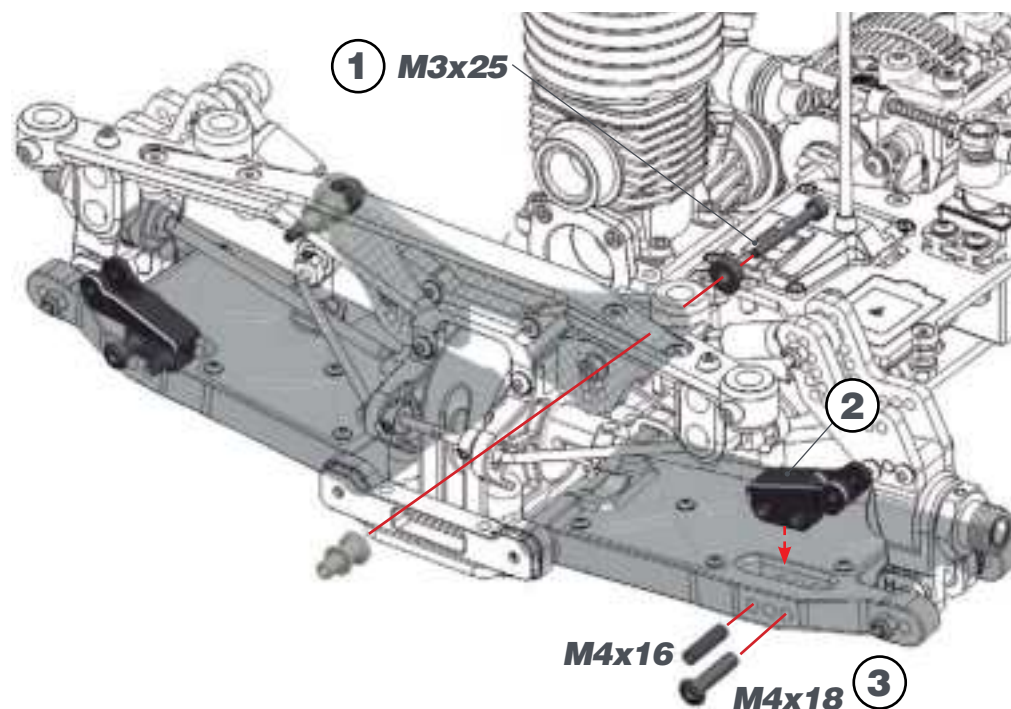
STEP 57



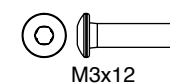
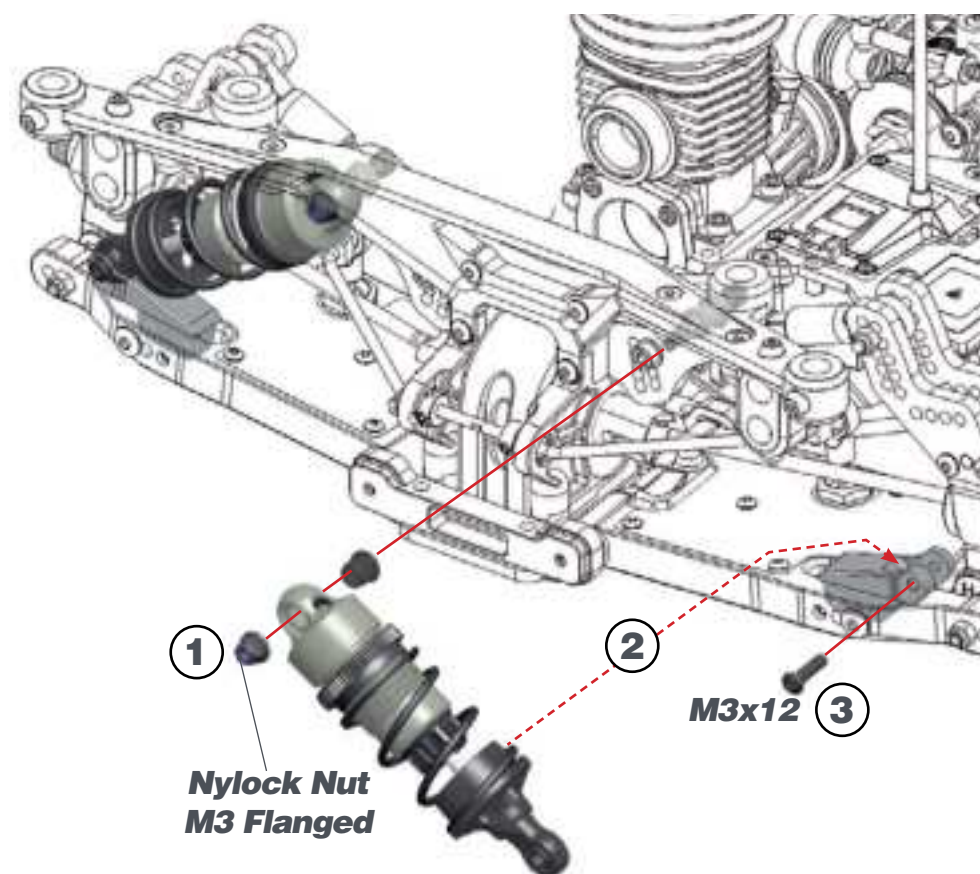
STEP 58



STEP 59



STEP 60



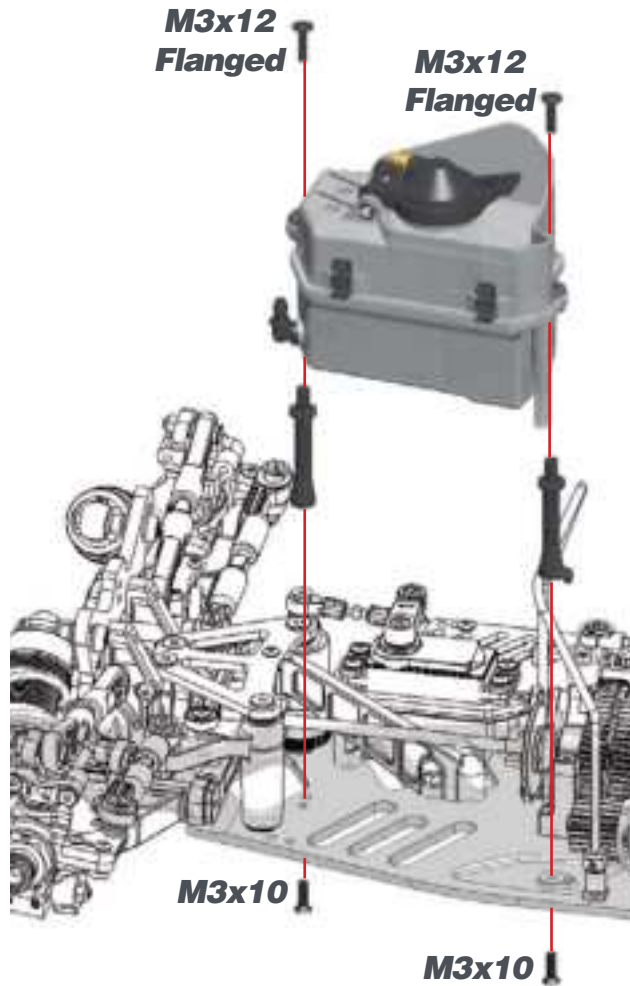
STEP 61

BAG 14

61.1



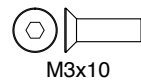
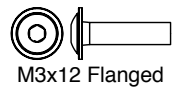
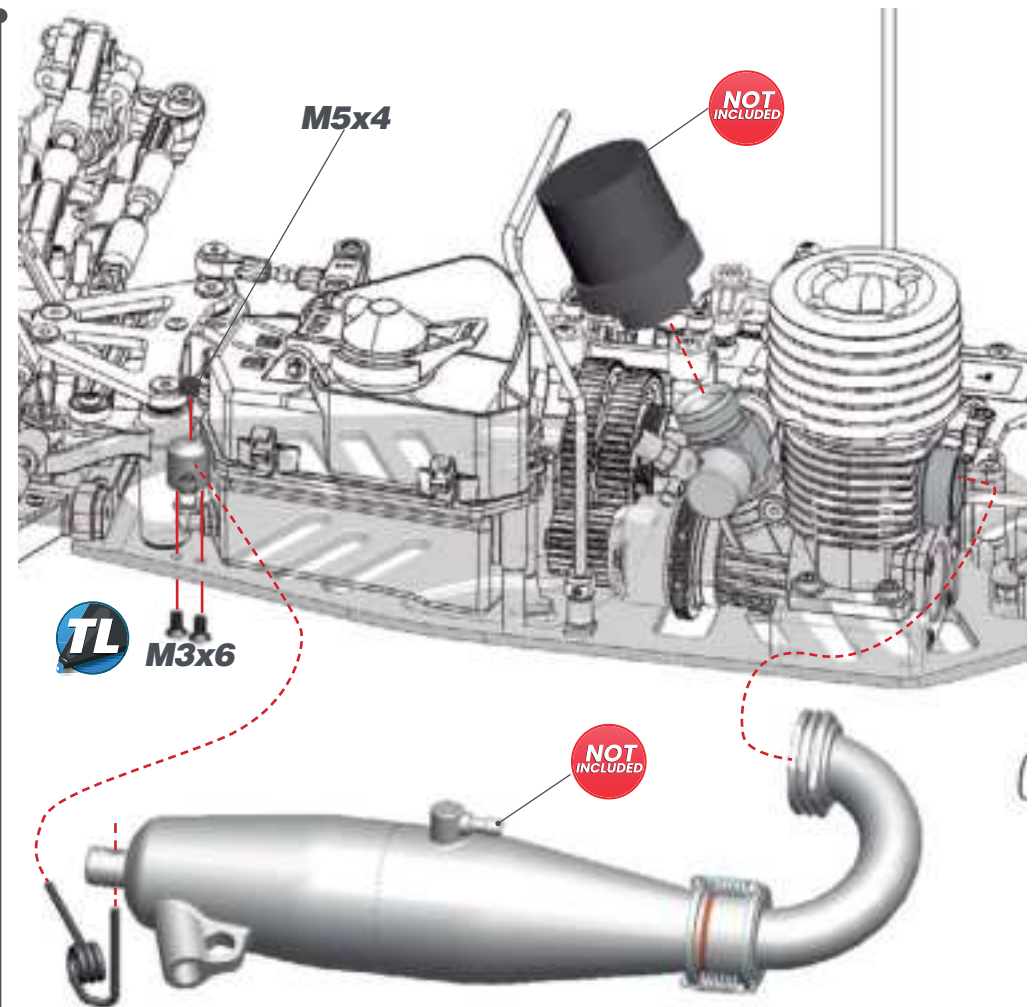
61.3



62.2

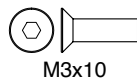
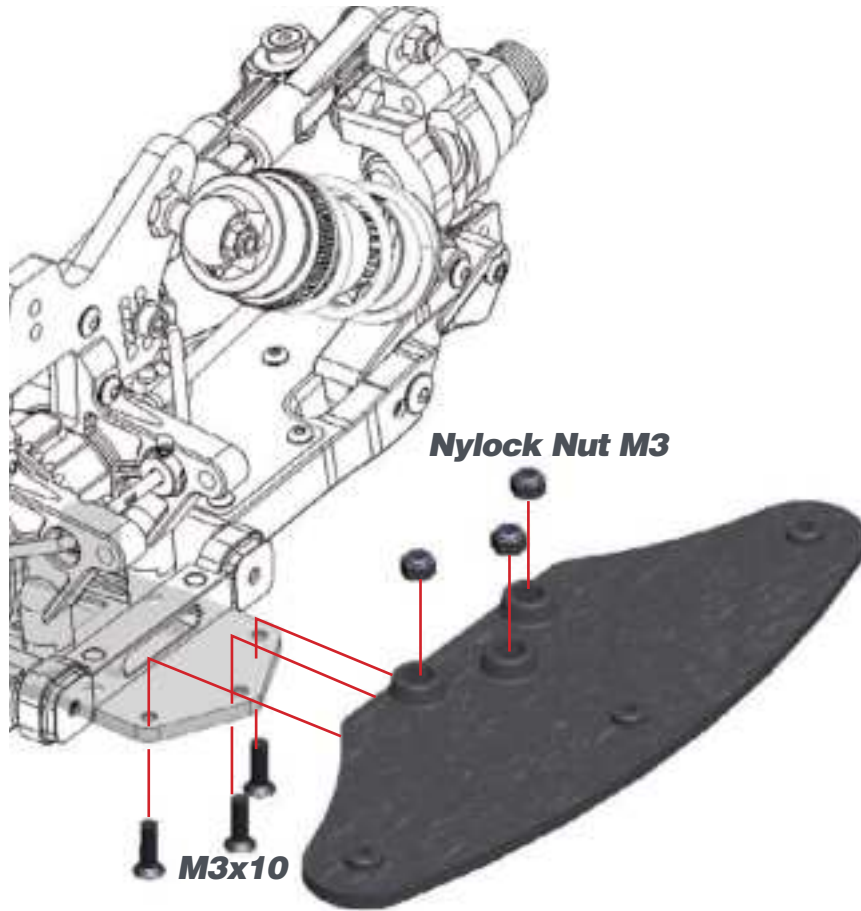


STEP 62

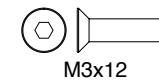
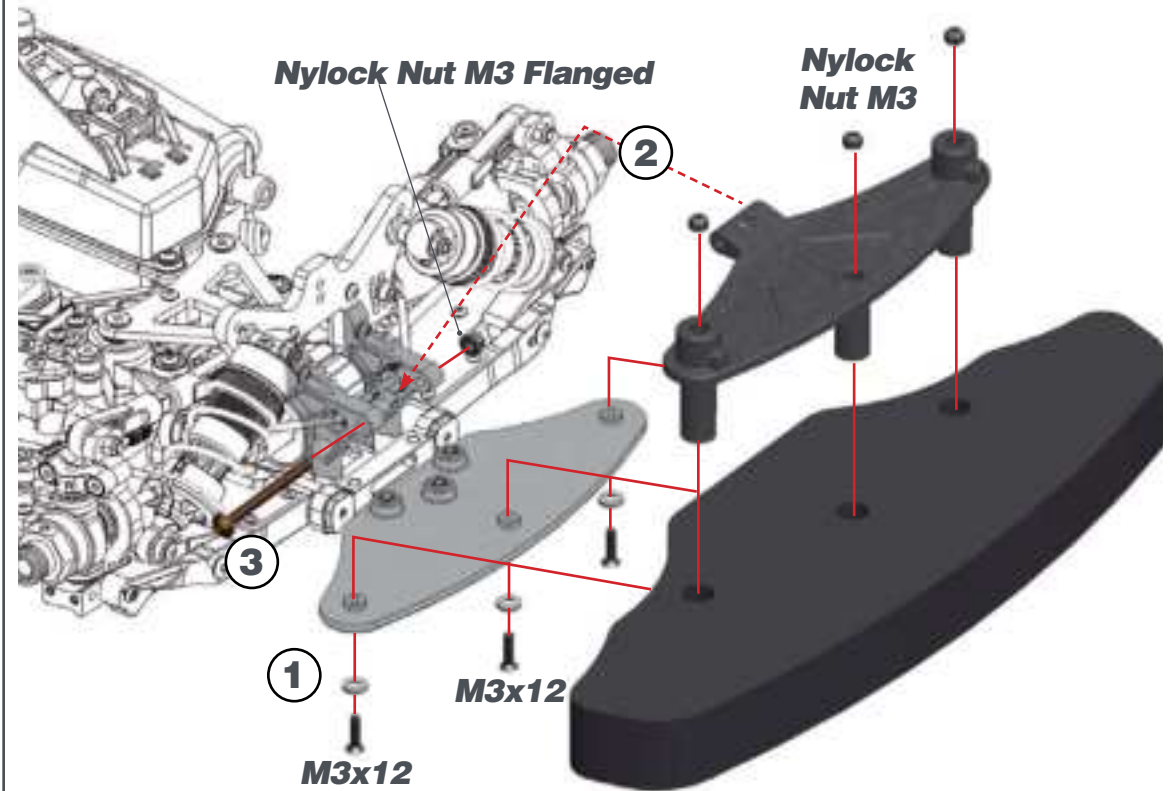


STEP 63

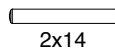
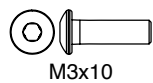
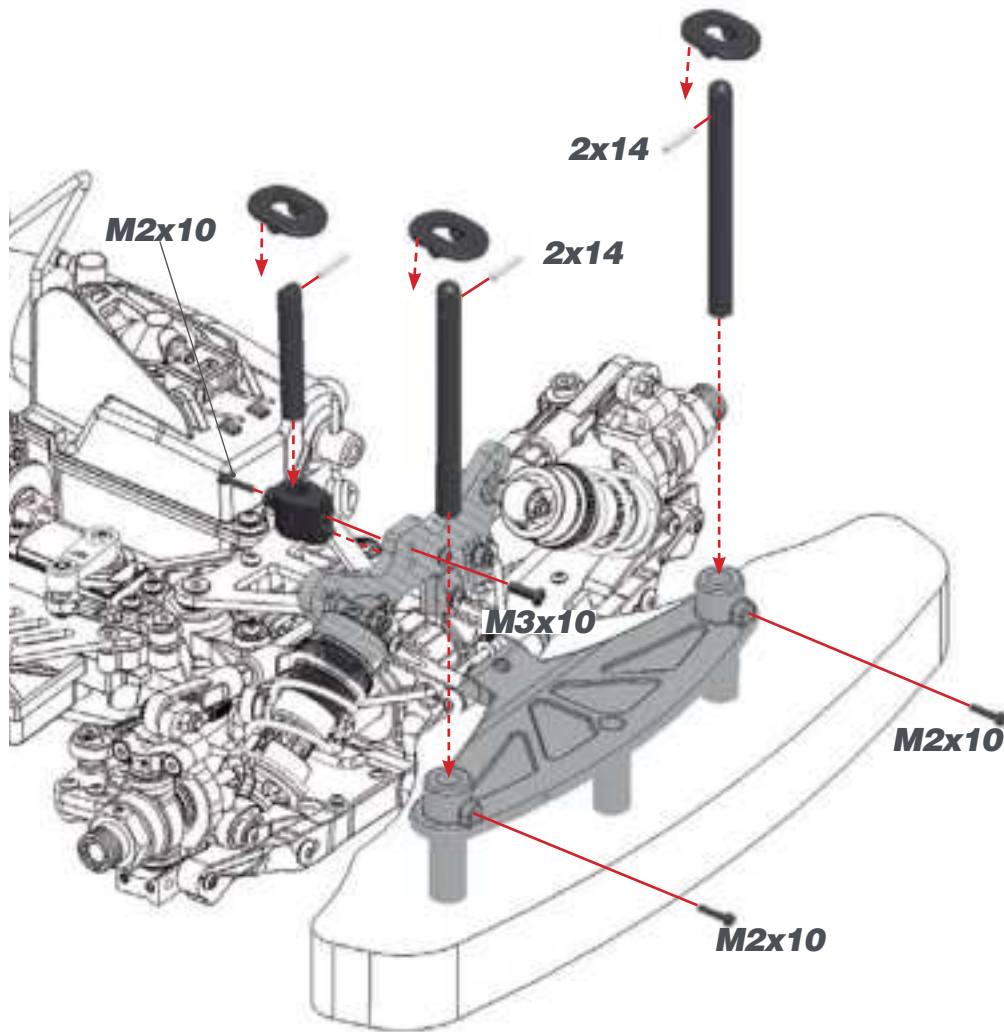
BAG 15



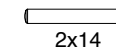
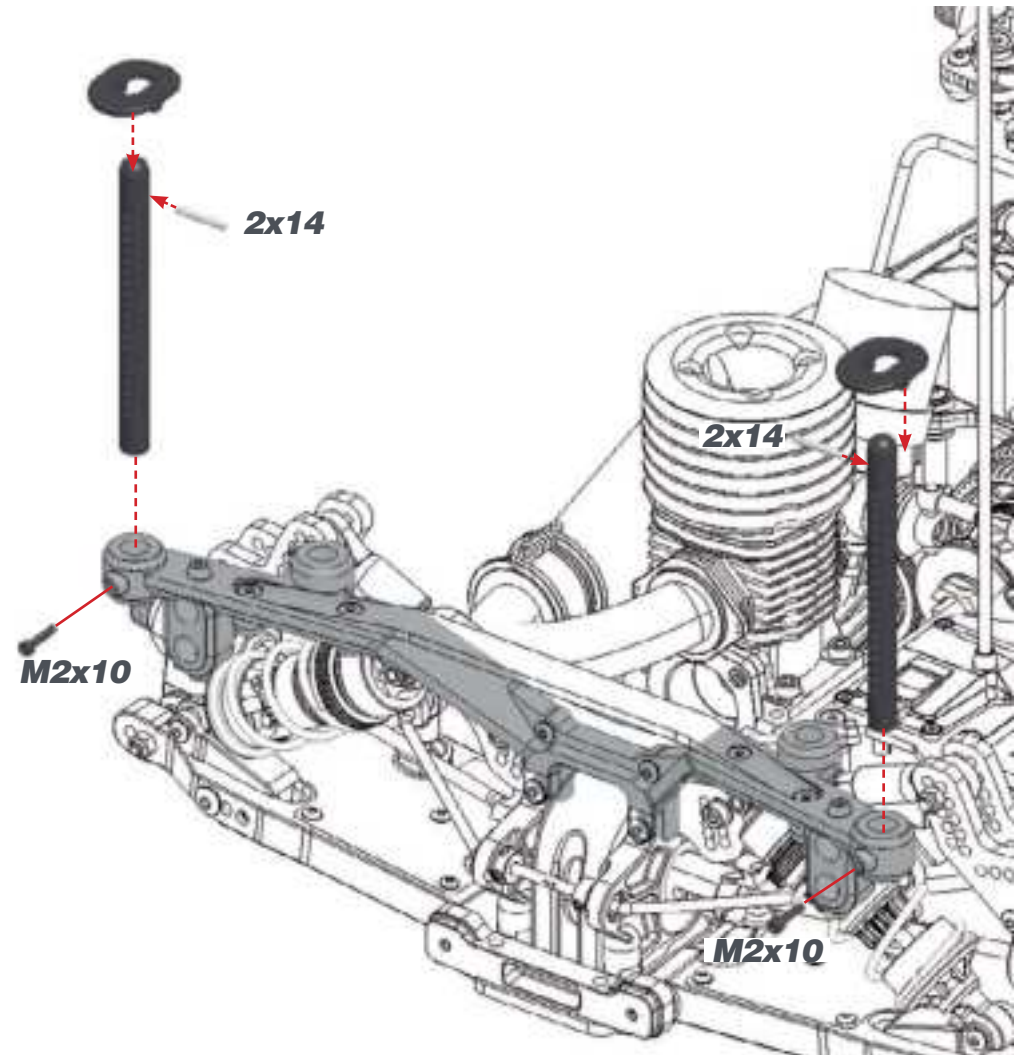
STEP 64



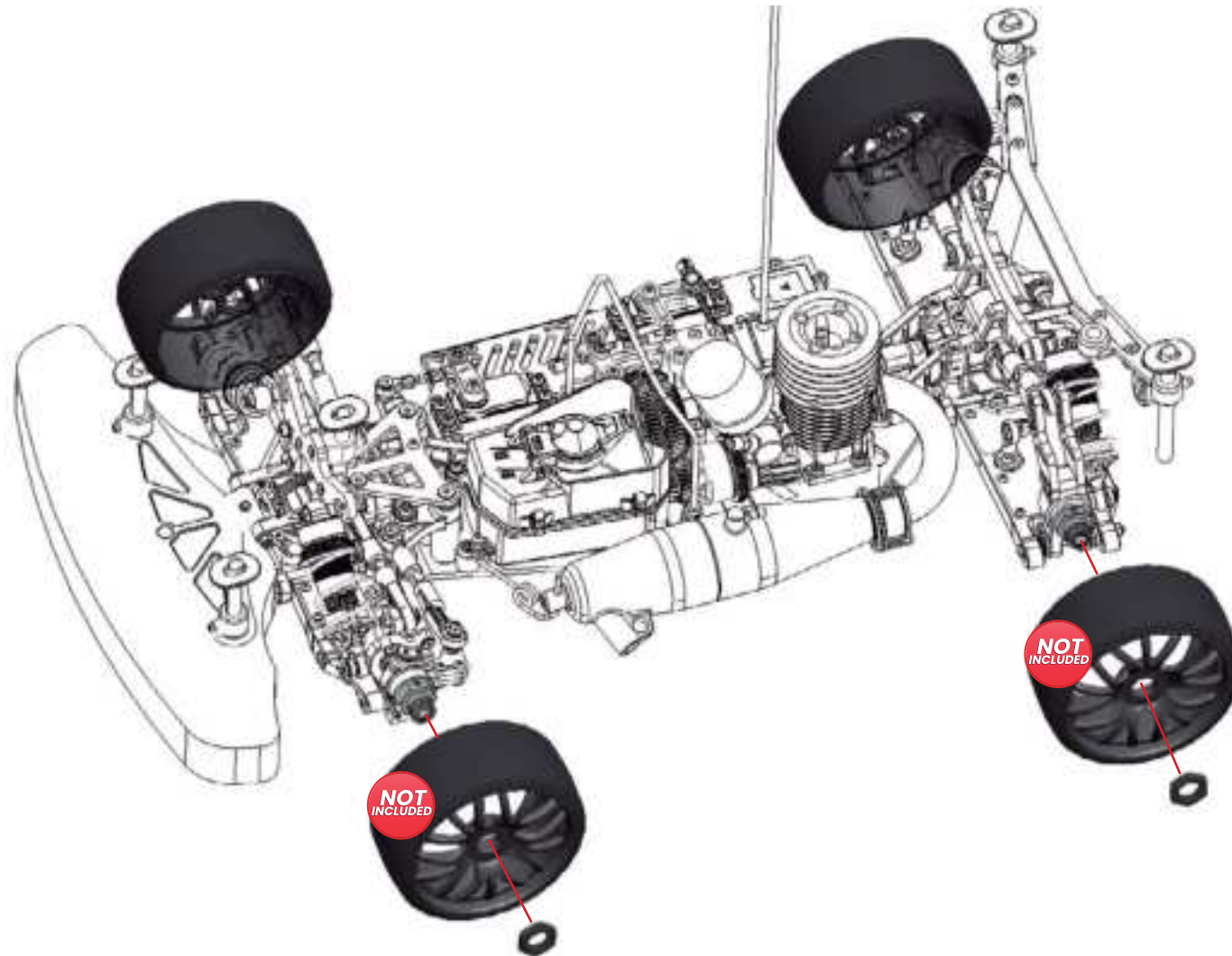
STEP 65



STEP 66



STEP 67



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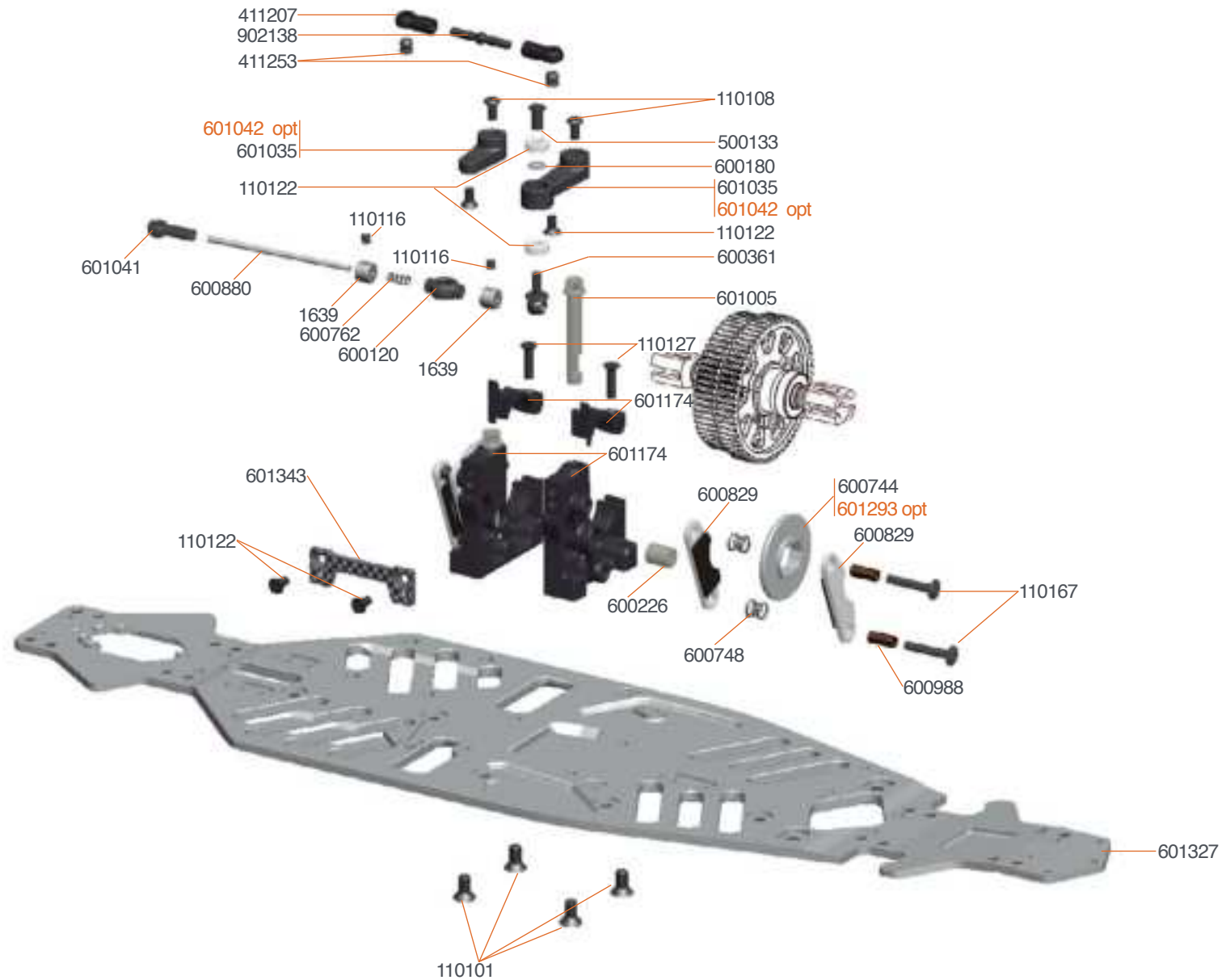
#601068 HTD diff set 44T fr/r SRX8



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



903771 2-speed gear set (6) XLI Gen2



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

REAR EXPLODED VIEW

SRX8 GT

SERPENT



600174 Antirollbar nut (2)
 600338 Antiroll bar rear 1.8mm
 600339 Antiroll bar rear 2.0mm
 600434 Antiroll bar rear 2.4mm
 600237 Antiroll bar rear 2.3mm
 600238 Antiroll bar rear 2.5mm
 600239 Antiroll bar rear 2.7mm
 600684 Antiroll bar rear 3.0mm

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

600969 Antiroll bar rear 2.2 mm
 600971 Antiroll bar rear 2.6 mm
 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

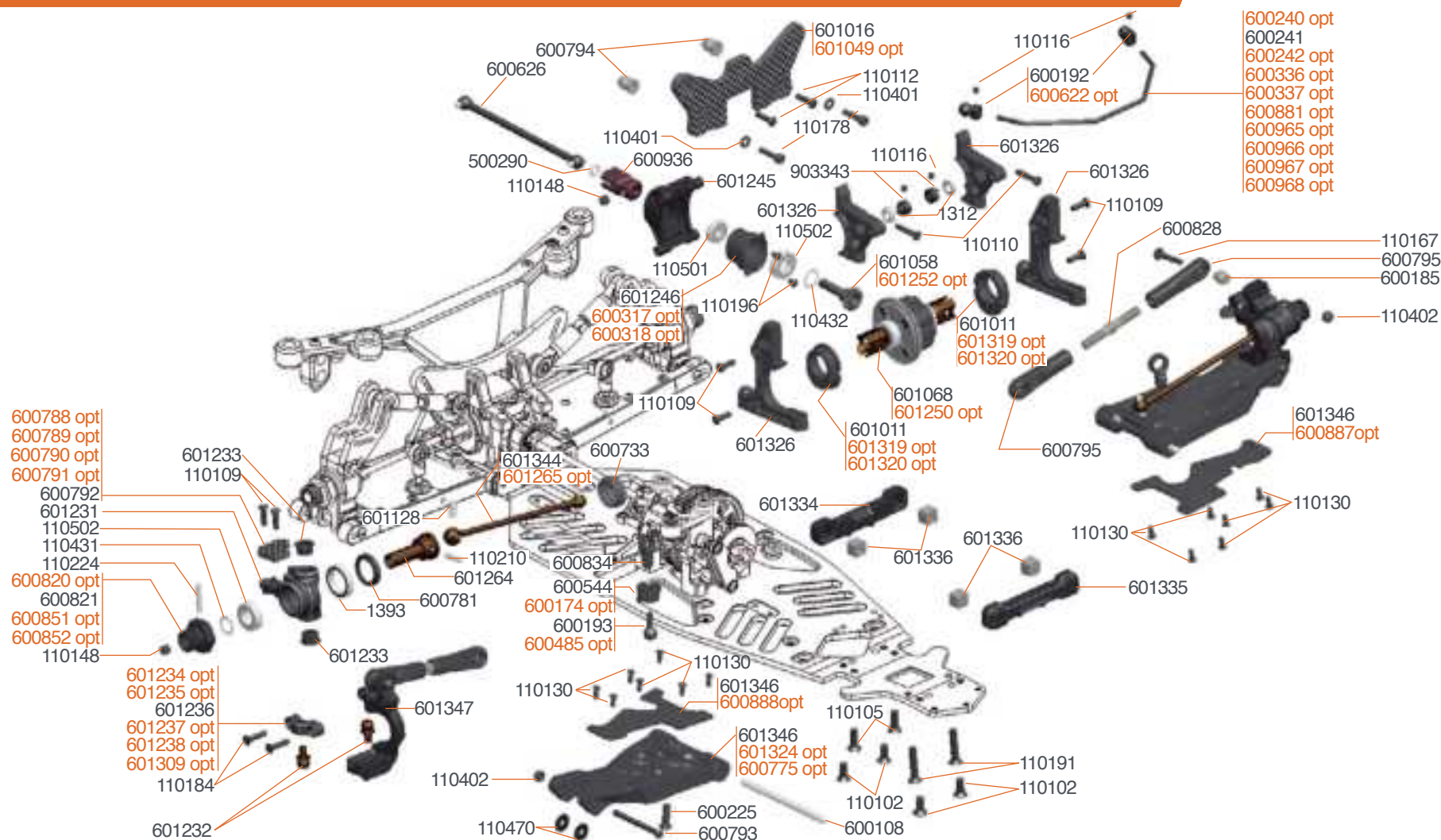
600895 Wishbone RR L+R SRX8
 601265 Driveshaft 98mm (2) V2
 601323 Wishbone rr L+R SRX8 hard
 601317 Pinion mount insert H/L alu SRX8 GT V2
 601318 Pinion mount insert MH/M/L alu SRX8 GT V2
 601319 Diff excenters fr/r H/L alu (2) SRX8 GT
 601320 Diff excenters fr/r alu MH/M/L (2) SRX8 GT



FRONT EXPLODED VIEW

SRX8 GT

SERPENT



- 600174 Antirollbar nut (2)
- 600336 Antirollbar front 1.8mm
- 600337 Antirollbar front 2.0mm
- 600240 Antirollbar front 2.3mm
- 600242 Antirollbar 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 Antirollbar front 3.0mm
- 600887 Wishbone insert carbon FR Lower SRX8
- 600888 Wishbone insert carbon FR Upper SRX8
- 600965 Antirollbar front 2.2mm
- 600966 Antirollbar front 2.4mm
- 600967 Antirollbar front 2.6mm
- 600968 Antirollbar front 2.8mm
- 601049 Shock Tower FR Straight arm SRX8

- 600821 Wheelhexagon +1mm (2) SRX8
- 601234 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 600775

- 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





601157 Steering post alu SRX8 GT (2)

601046 Servo lever throttle 24T alu SRX8 GT

601047 Servo lever throttle 25T alu SRX8 GT

#601163 ADJUSTABLE GT CLUTCH SET

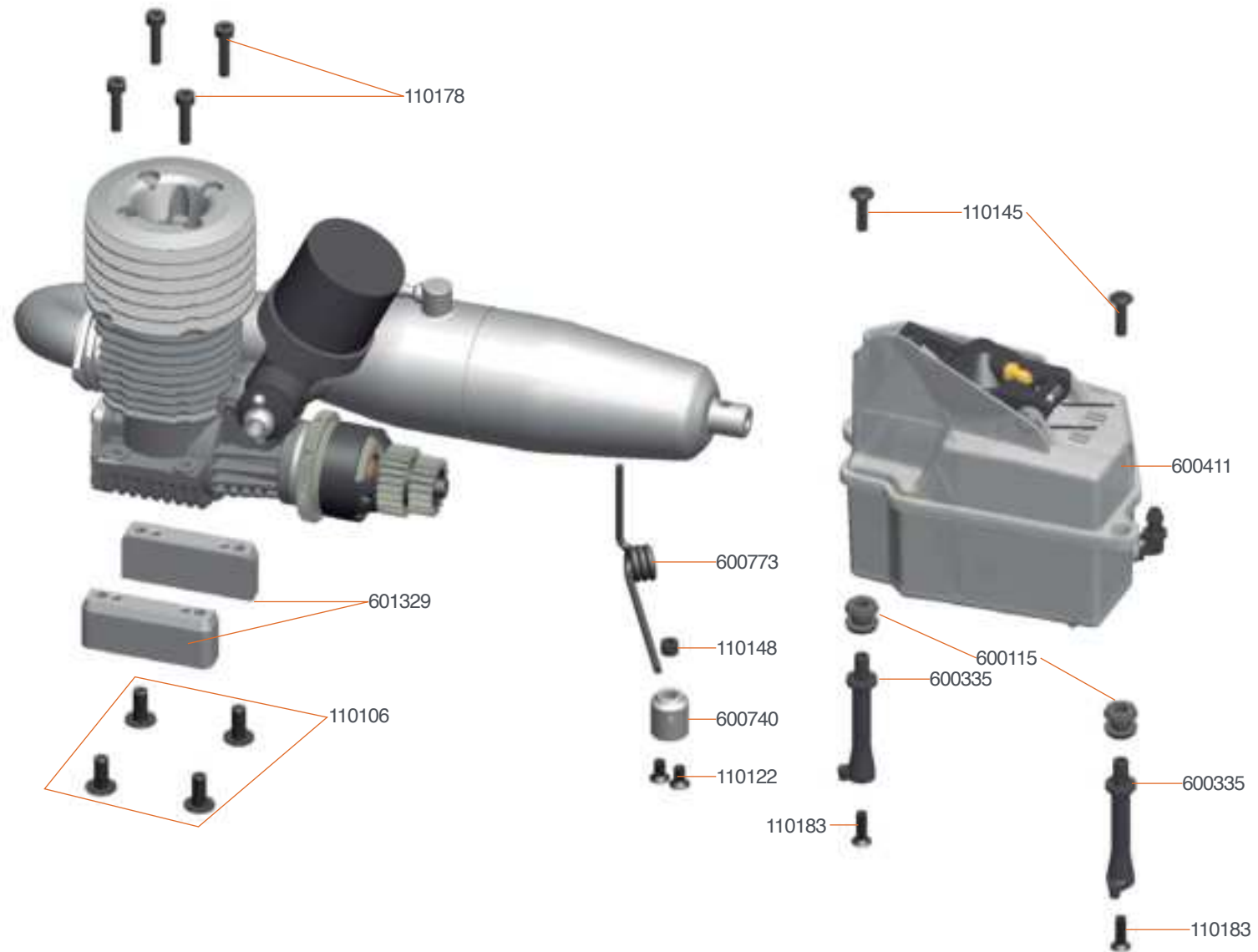


903643 Centax gear-pinion alu 23T XLI
903645 Centax gear-pinion alu 25T XLI
601169 Adjustable GT clutchshoe yellow

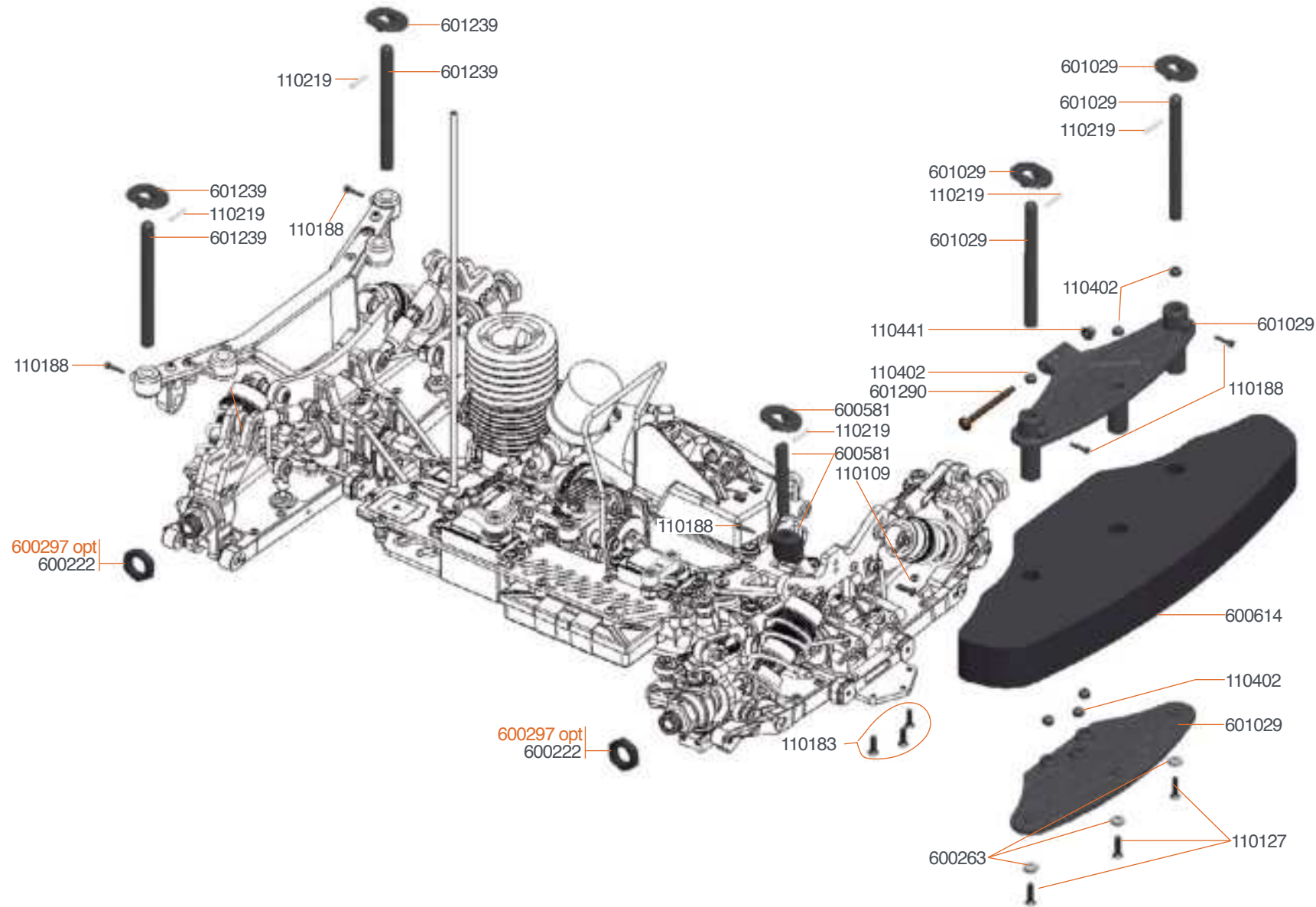
903796 Centax spring XX-hard
903799 Centax gear-pinion alu 18T XLI Gen2
903801 Centax gear-pinion alu 20T XLI Gen2

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









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

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

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