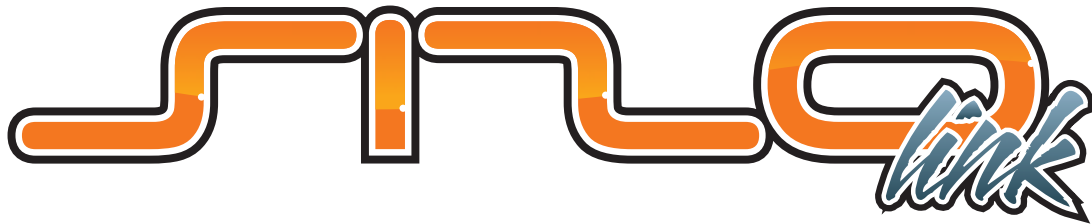




INSTRUCTION MANUAL
& REFERENCE GUIDE



INTRODUCTION

Serpent created this racing car for the competitive electric 1/12th scale pan car class as the S120-L, which like all our previous cars, has been designed to win straight from the box. Featuring a number of truly innovative features such as a nicely shaped aluminium rear pod, floating horizontal damper, shaped side-links, easy adjustment and top quality materials throughout, the S120-L should see you in the winners circle in no time. In fact everything associated with this car is of the highest quality, from the packaging and supplied manuals, right through to the product and race support.

INSTRUCTIONS

Serpent's long tradition of excellence extends to their 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 racecar that will soon be able to unleash its full potential at the racetrack.

SETUP

In certain assembly steps you need to make basic adjustments, which will give you a good initial setup for your Serpent S120-L. Fine-tuning the initial setup is an essential part of building a high-performance racecar like your S120-L.

EXPLODED VIEWS AND PARTS LIST

The exploded views and parts lists for the Serpent S120-L 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. The parts lists indicate the part number and name of each part for easy reference **when ordering**.

SAFETY

Included with your Serpent S120-L kit is a document entitled "Read This First" that covers safety precautions for the assembly and use of this product. We strongly recommend that you thoroughly read and understand that document, and follow all the precautions.

SERPENT.COM

The printed instruction manual included with your Serpent S120-L kit is very complete, though due to continuous product development, more up-to-date information may be provided at our **Serpent.com** website.

All information about the Serpent S120-L is accessible from the Serpent S120-L product page found on Serpent.com and can be accessed by simply typing

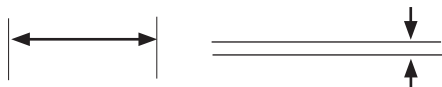
serpent.com/410003 into your web browsers address bar. From the Serpent S120-L product page you will find the very latest information about your Serpent S120-L: reports by team drivers and other experts, tips and tricks, setups, image gallery and downloadable files including the latest version of the instruction manual will be made available as downloadable PDF files.

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USING THE MANUAL

①



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

Length after assembly / Gap between two items

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

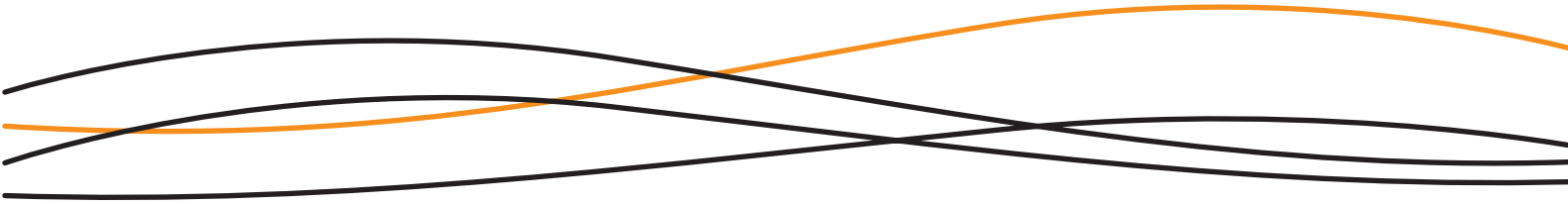
Press/Insert one item into another

Connect one item to another



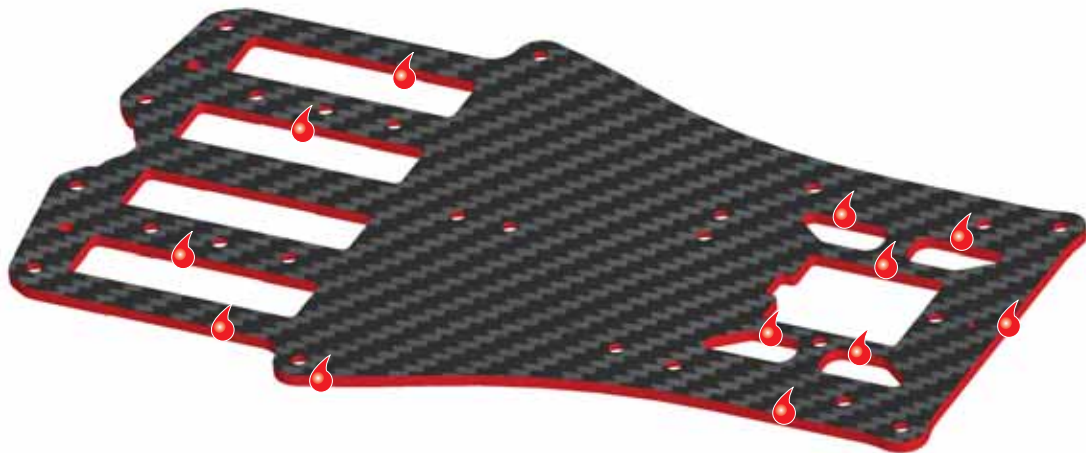
Apply transmission grease (Grey), threadlock* (Blue), CA glue* (Red) or differential grease (Orange). (*Items not included.)

ASSEMBLY INSTRUCTIONS

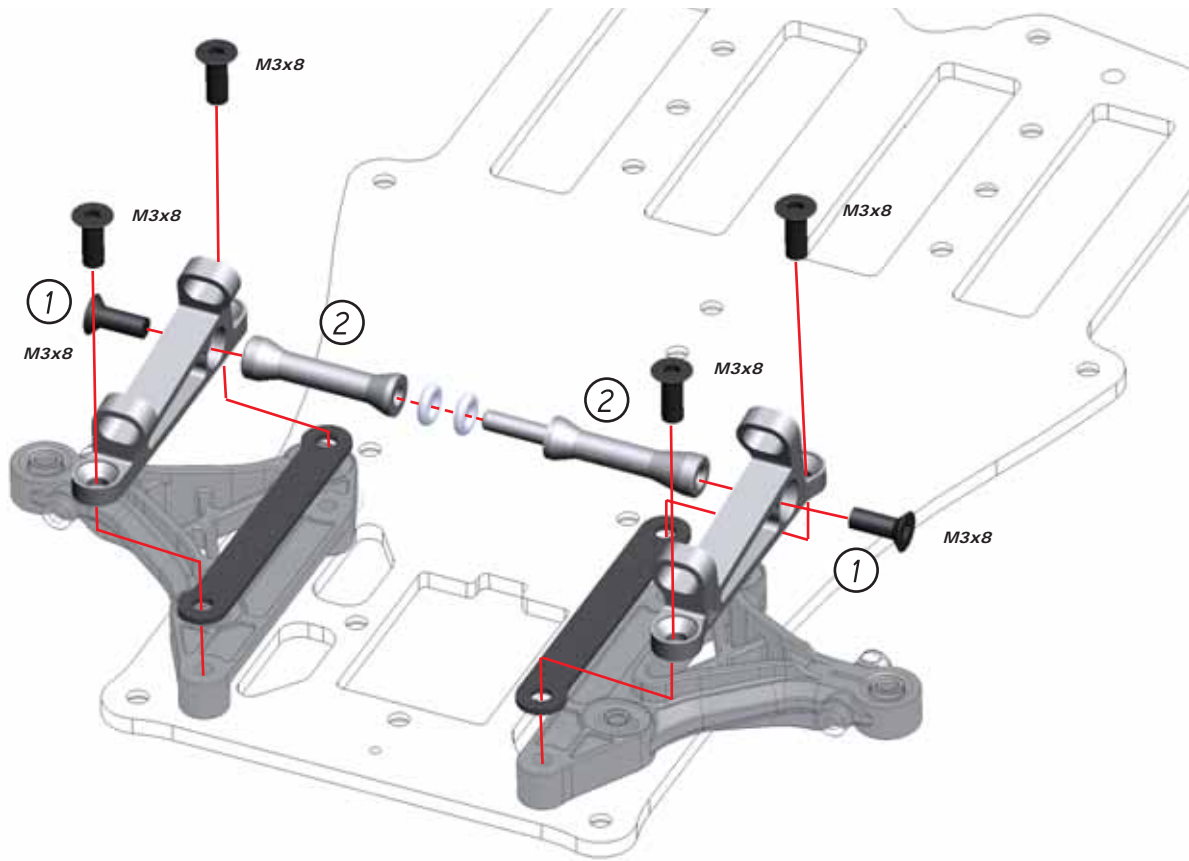


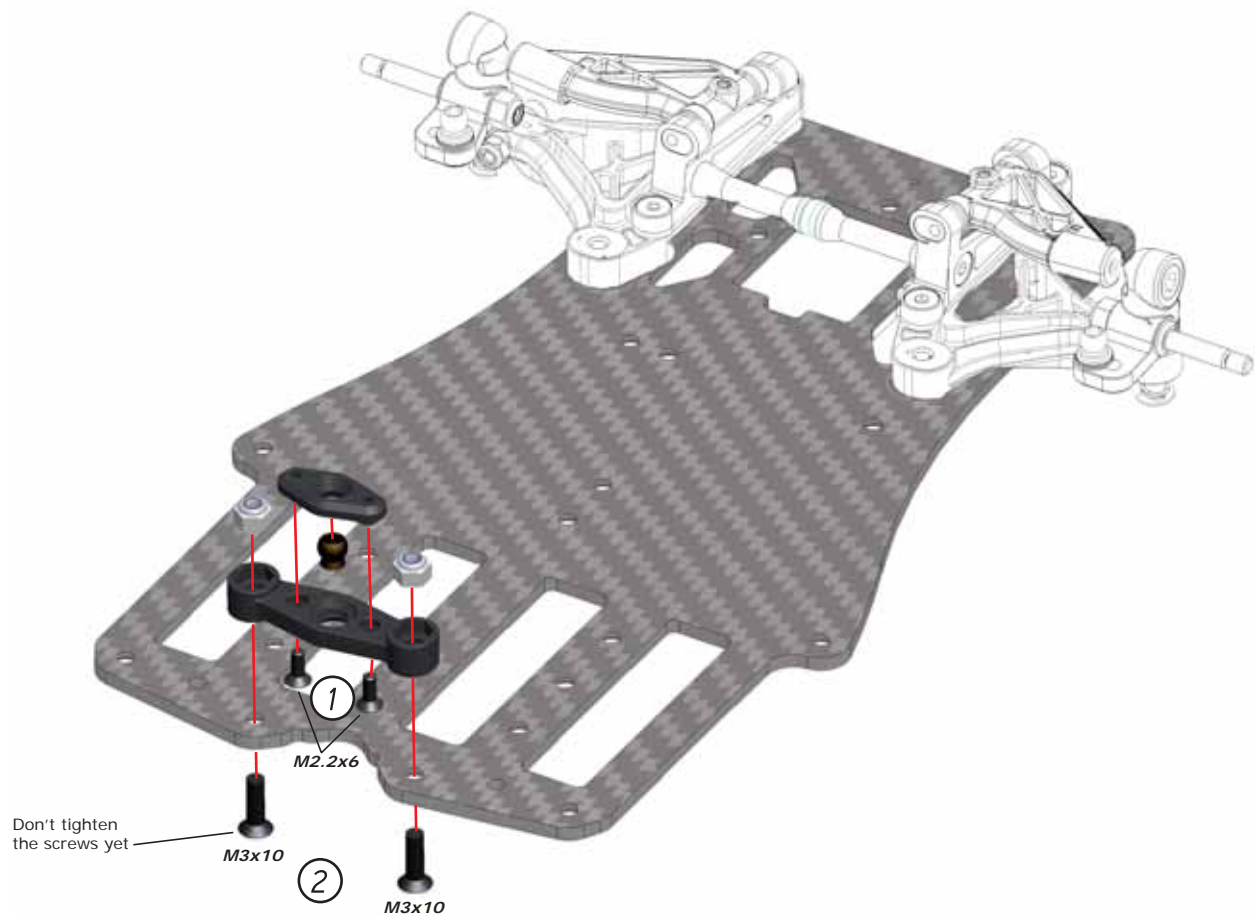
 CA Glue

To prevent the risk of the carbon fibre splitting in the event of a crash you should apply CA Glue around the chassis' edge and battery slots as shown in red below.







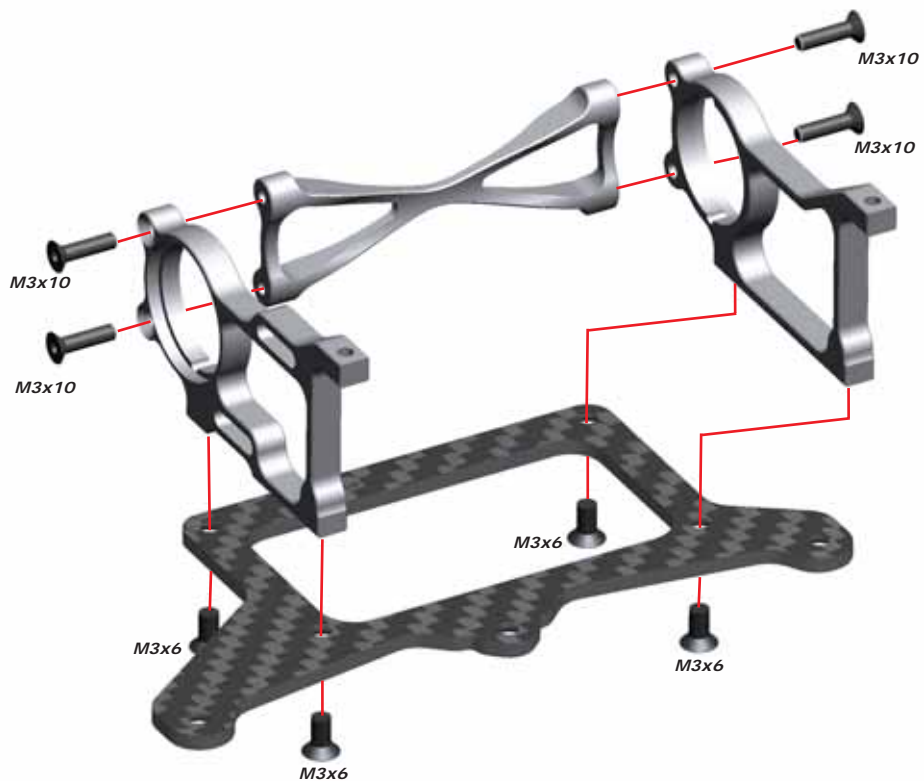


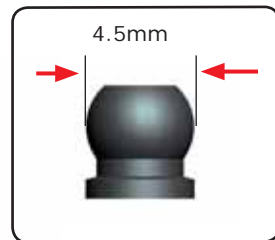
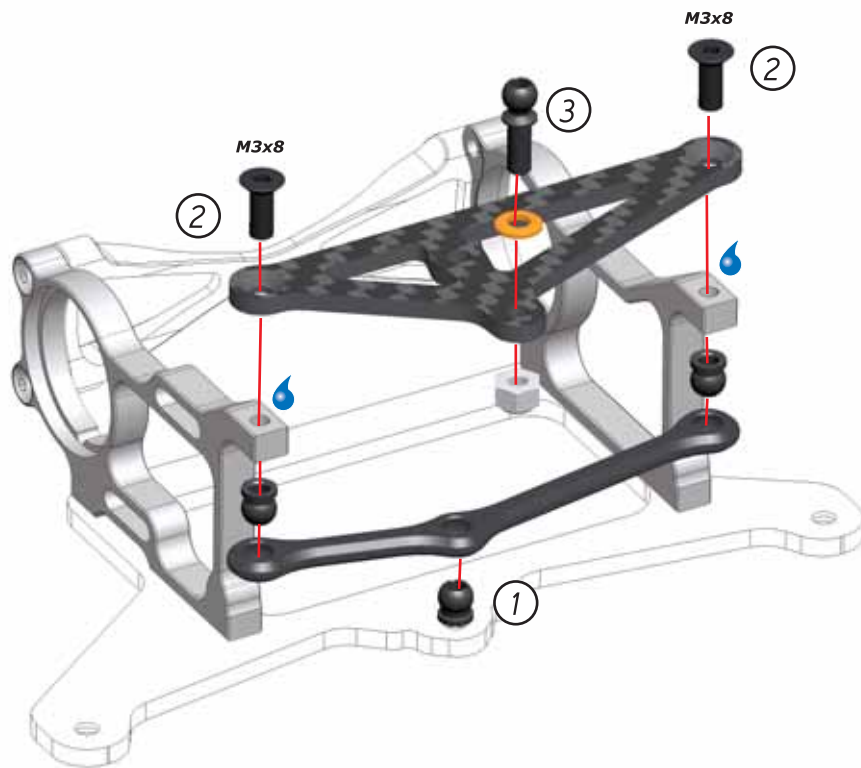
Don't tighten
the screws yet

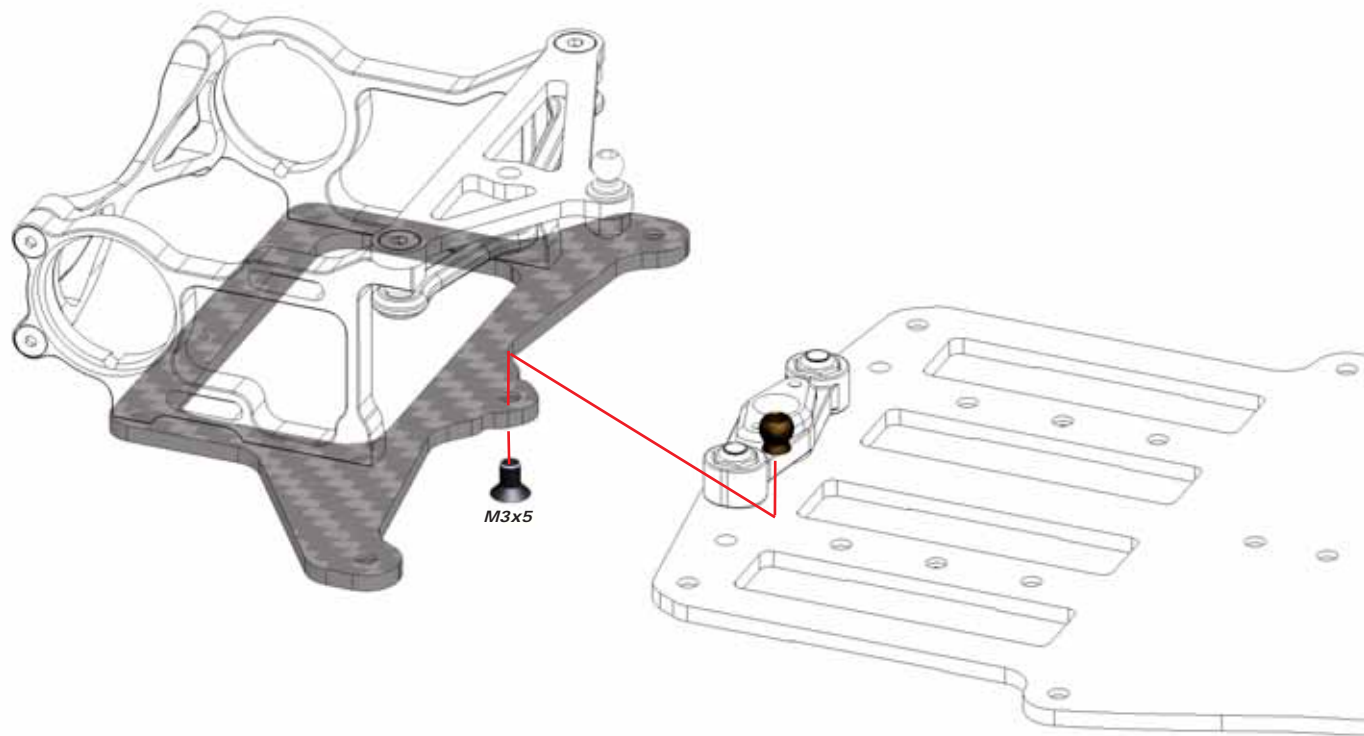
M3x10

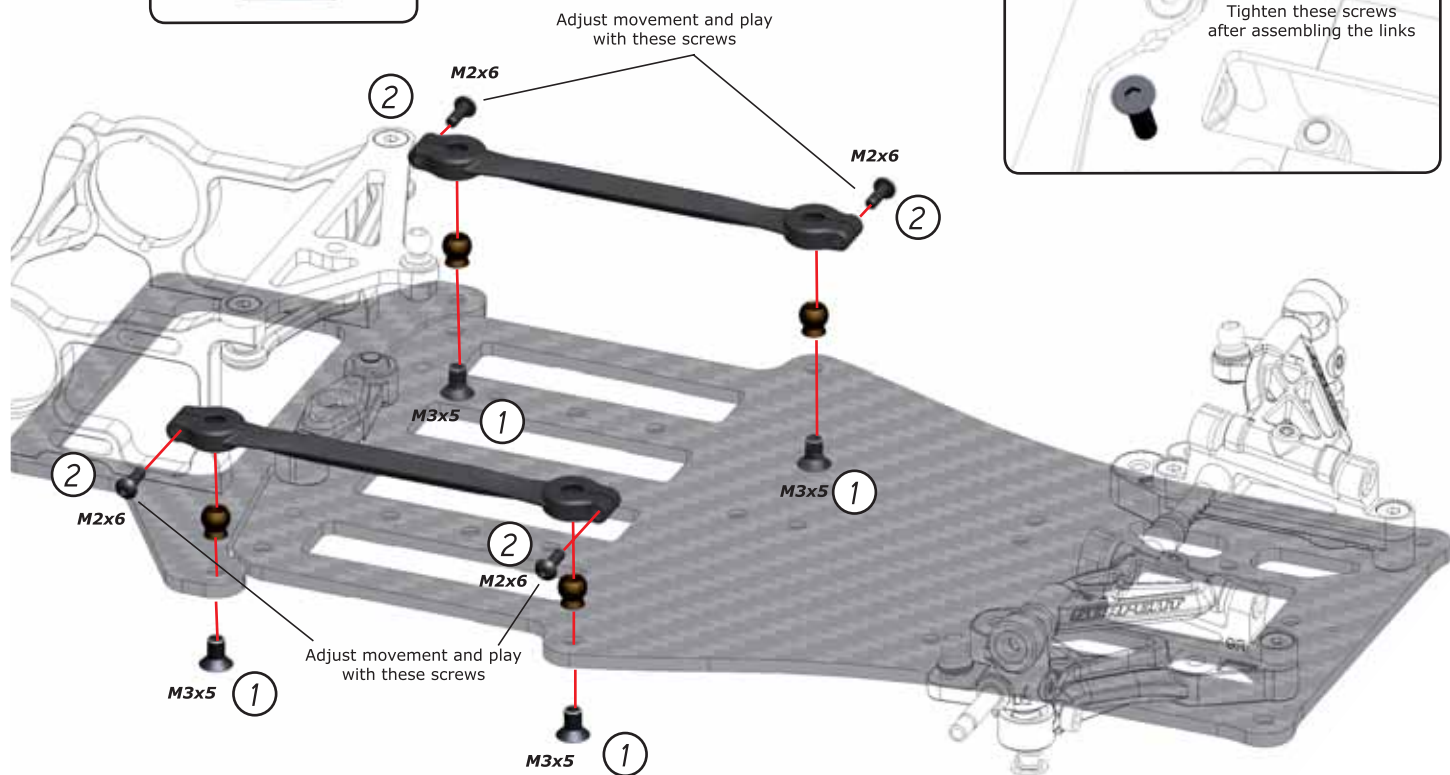
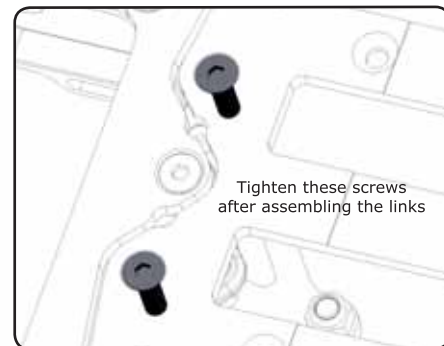
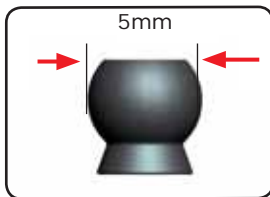
2

M3x10









SHOCK ASSEMBLY



Unscrew the bottom half of the pre-assembled shock absorbers.

**FILLING**

Fill the shock body with the supplied shock absorber oil.

BLEEDING

Let the oil settle and allow the air to escape.



Massage some shock oil into the shock sponge before re-assembling the shock absorber.

**FOR BOTH SHOCKS**

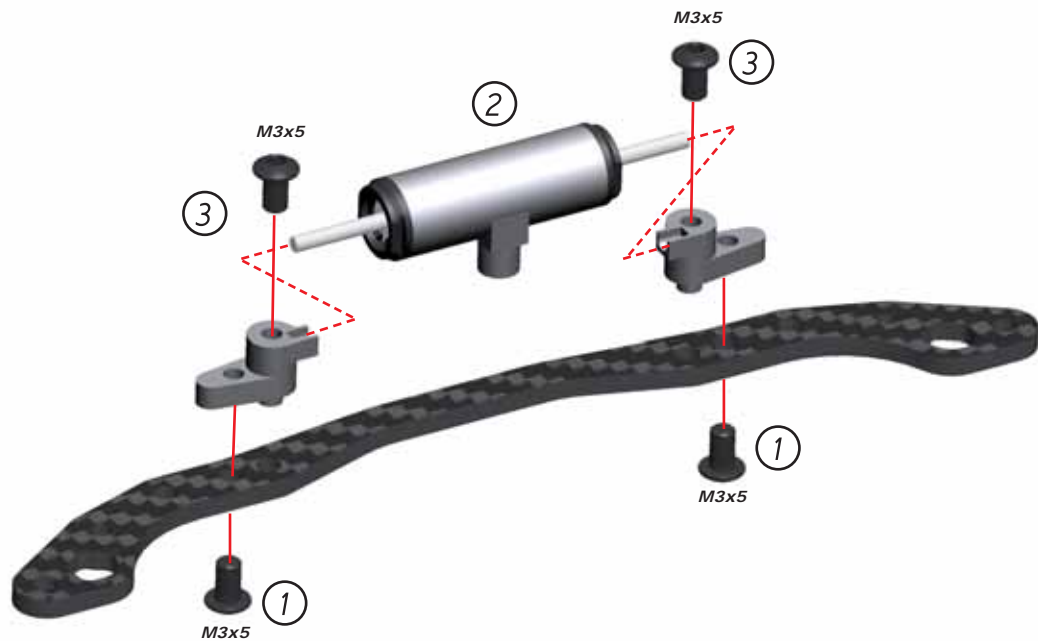
With the shock body filled with oil, slowly screw the end of the shock back onto the shock body.

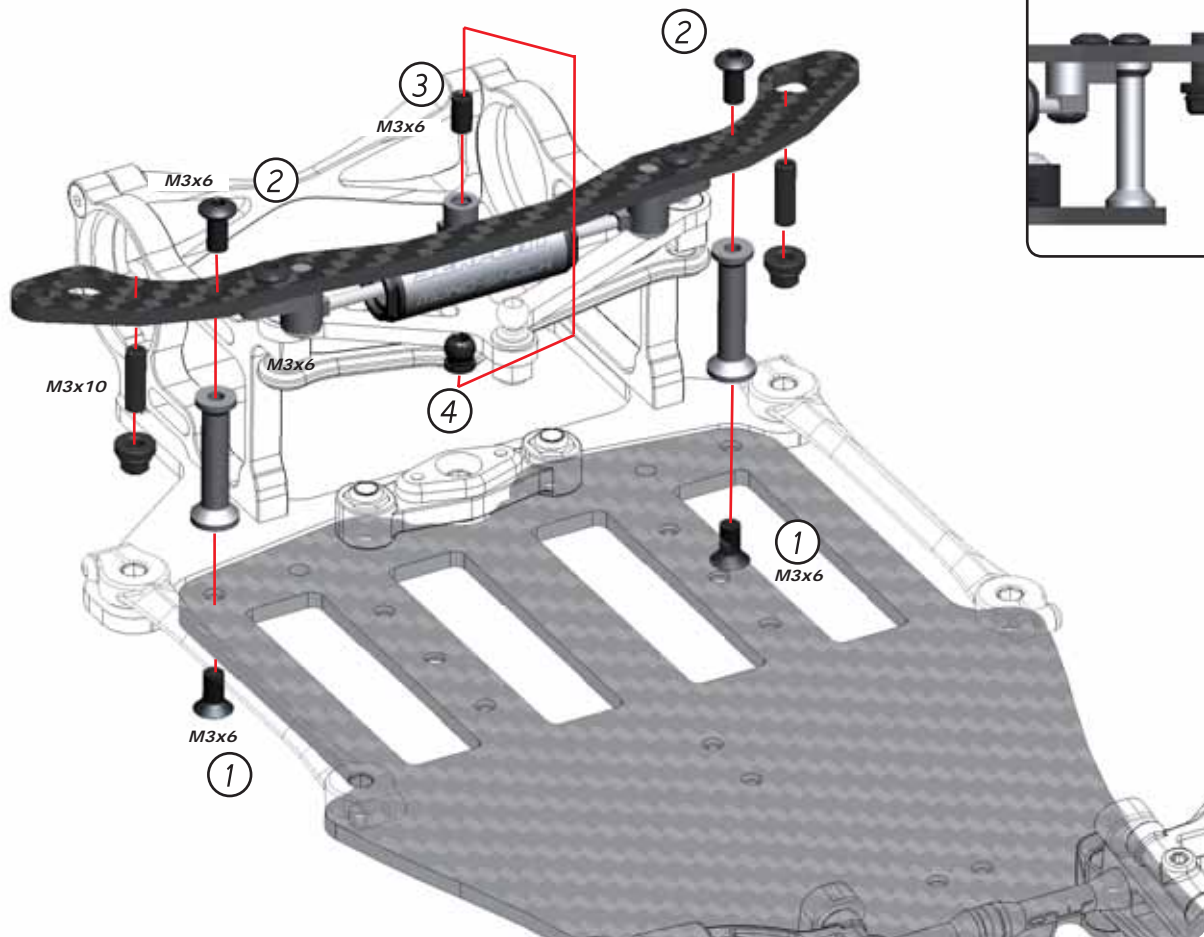
IMPORTANT!

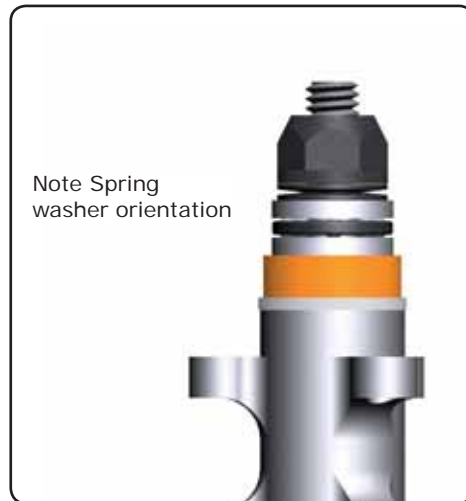
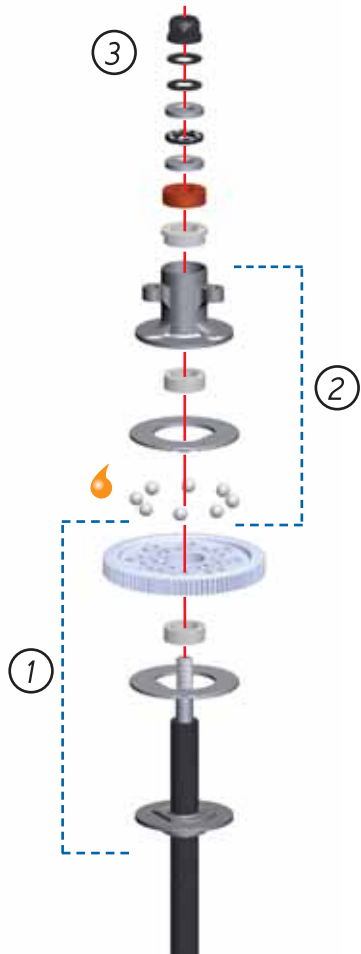
Do not cross thread!

Oil will overflow through the built-in bleed channel in the threads. Tighten carefully until the bottom half seats against the shock body.

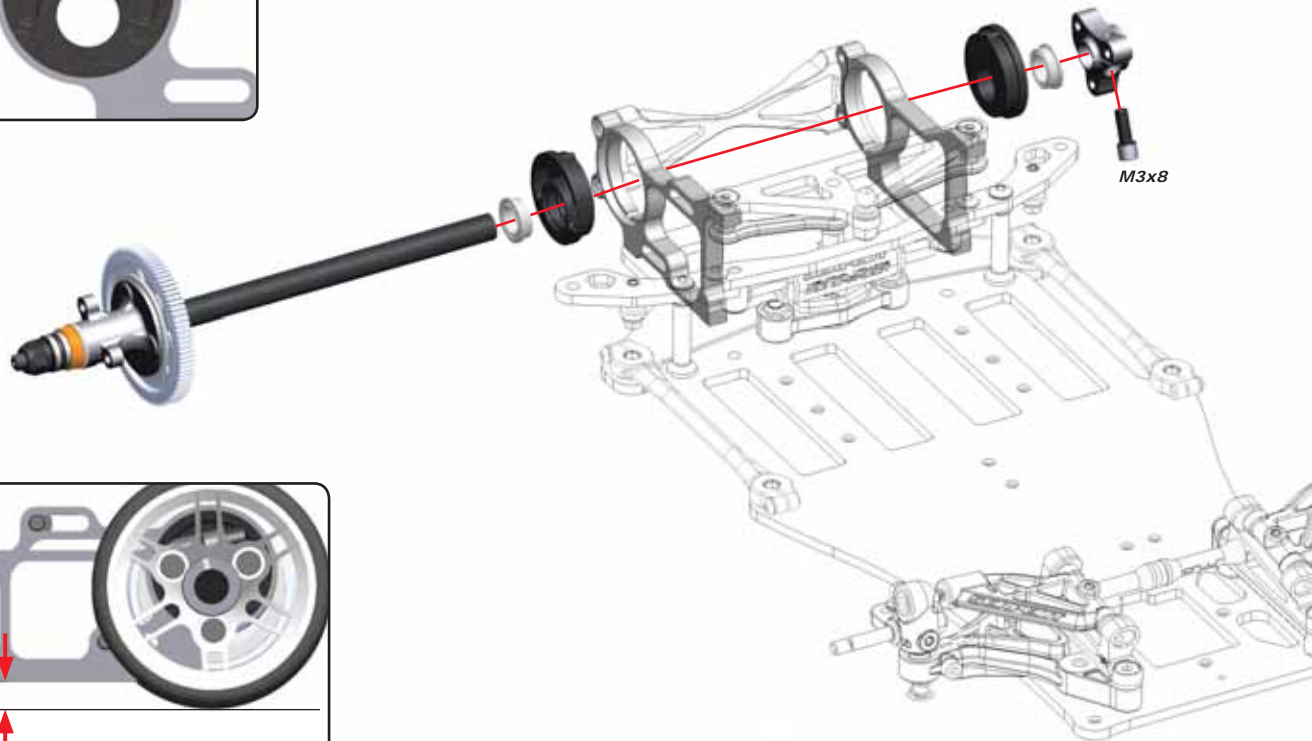




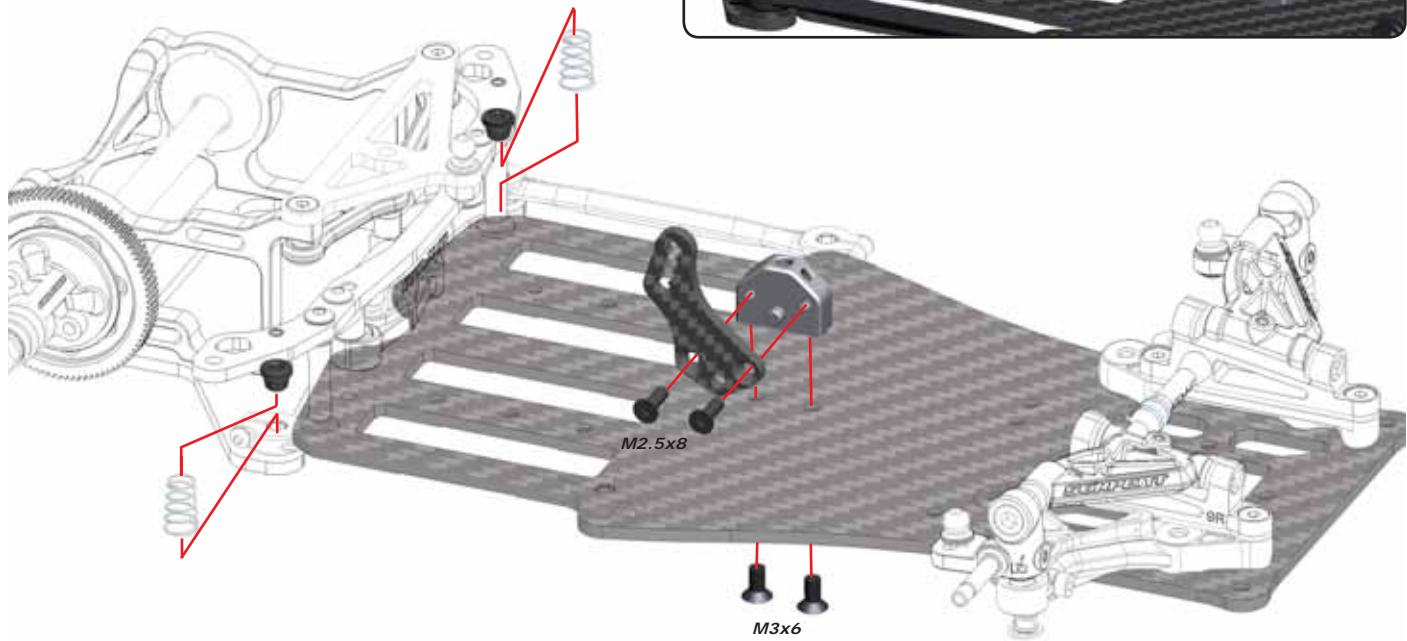


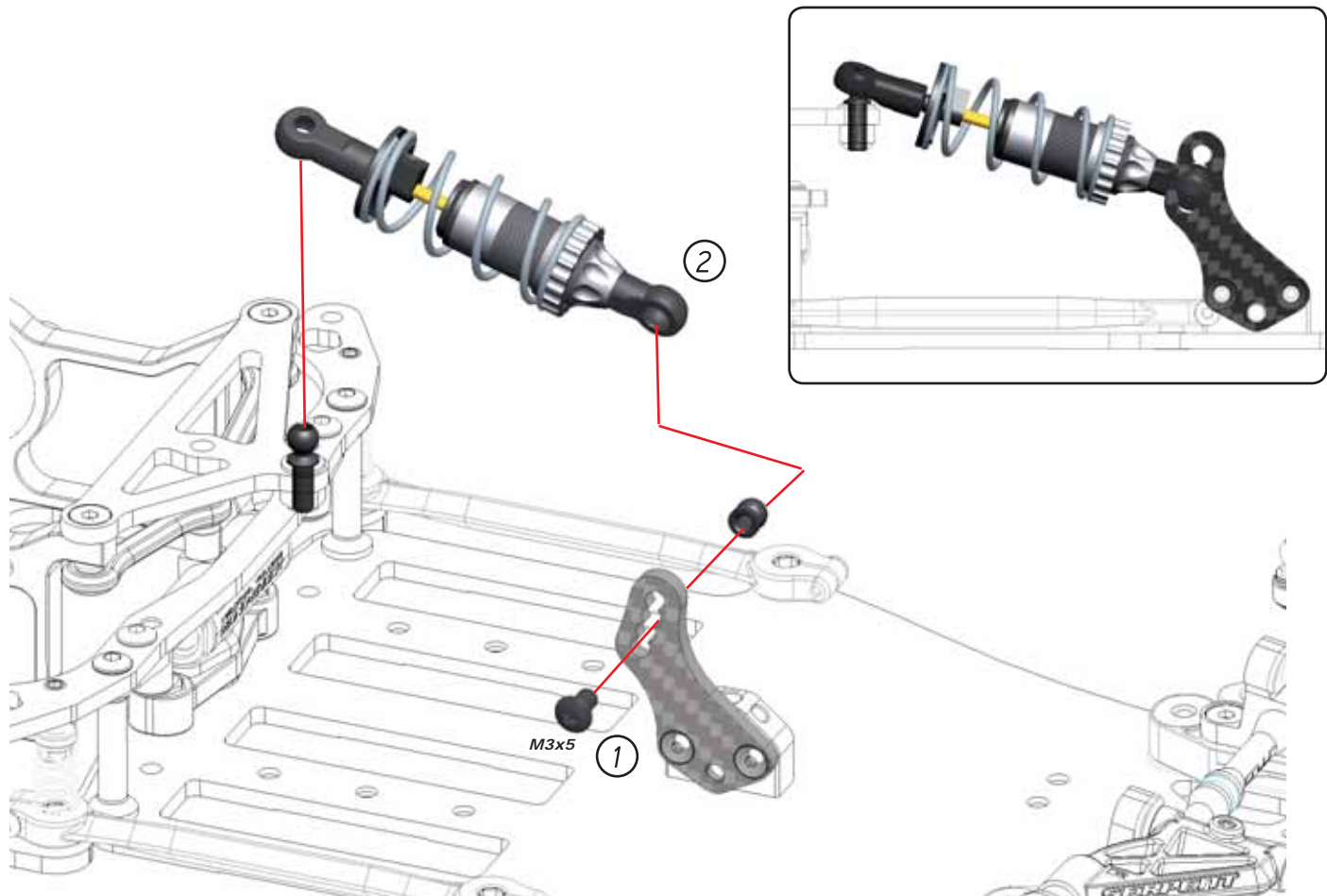


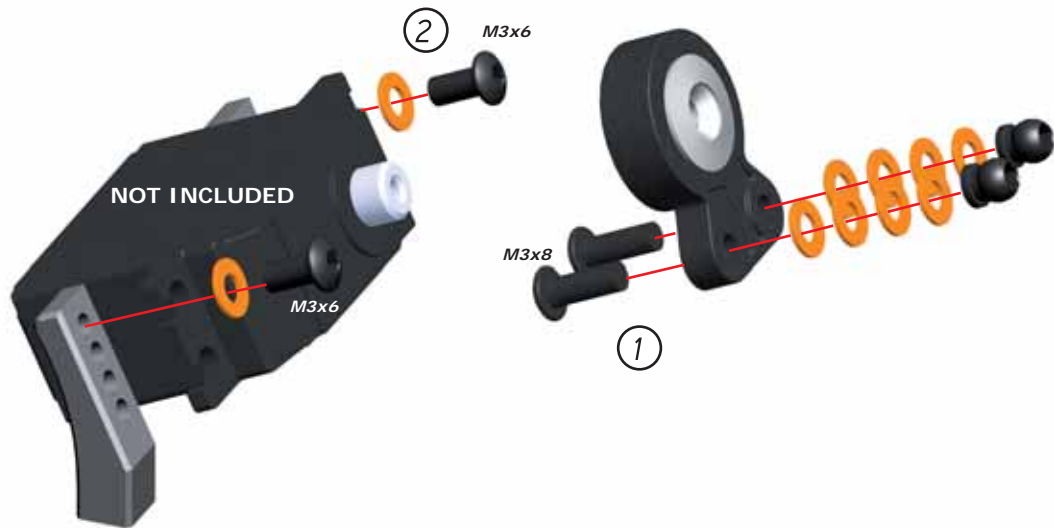
Note Insert orientation



Ride Height of 3.5-4mm





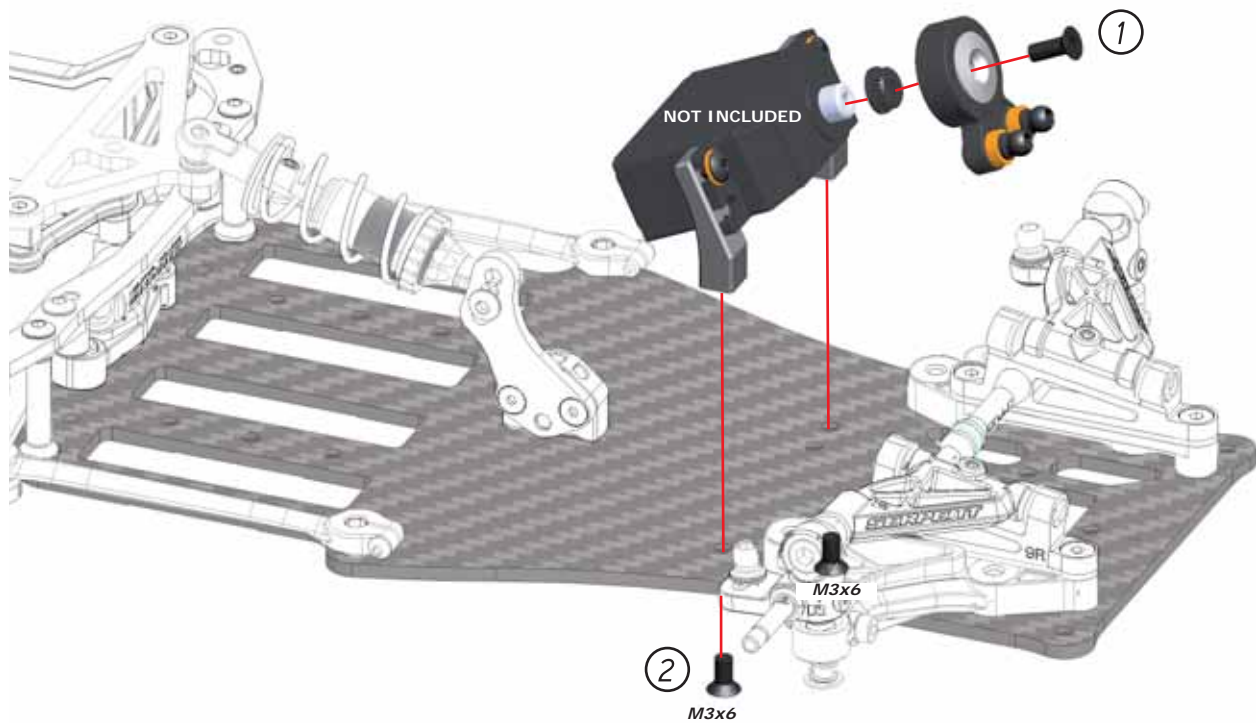


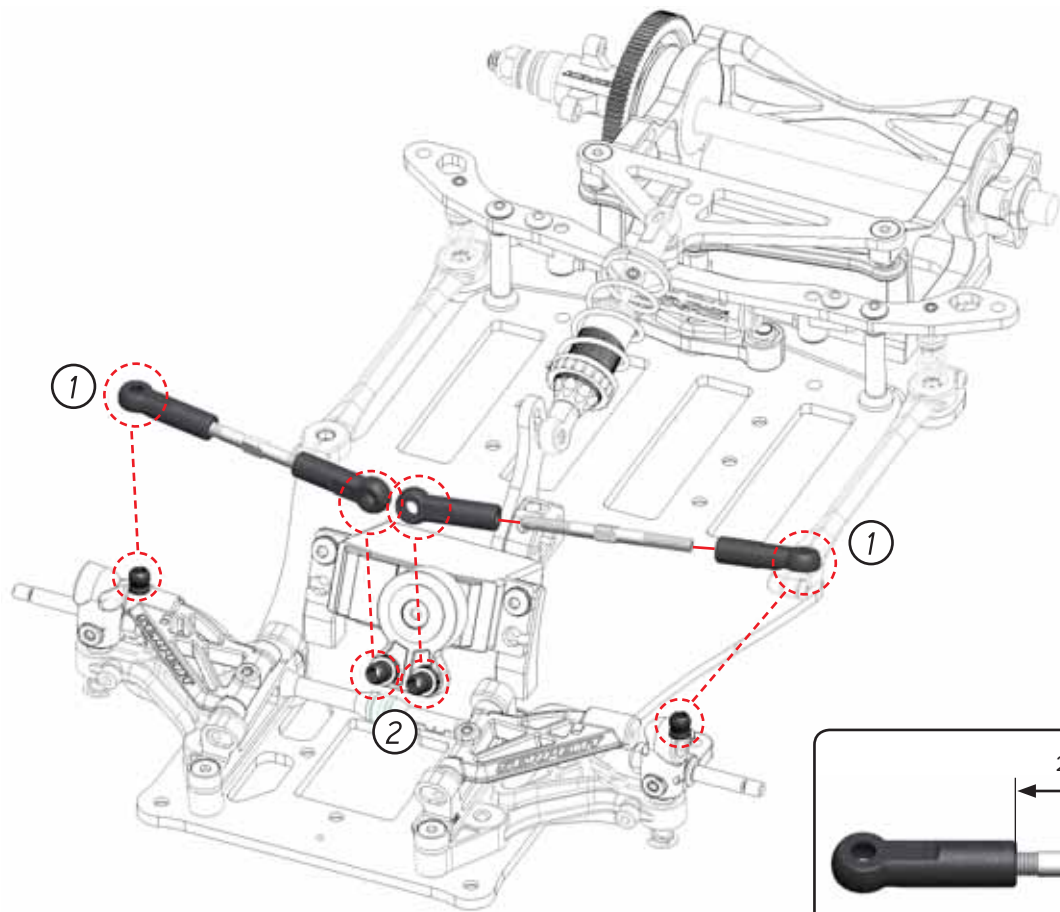
Use the following servo saver
insert with these brands of servos.

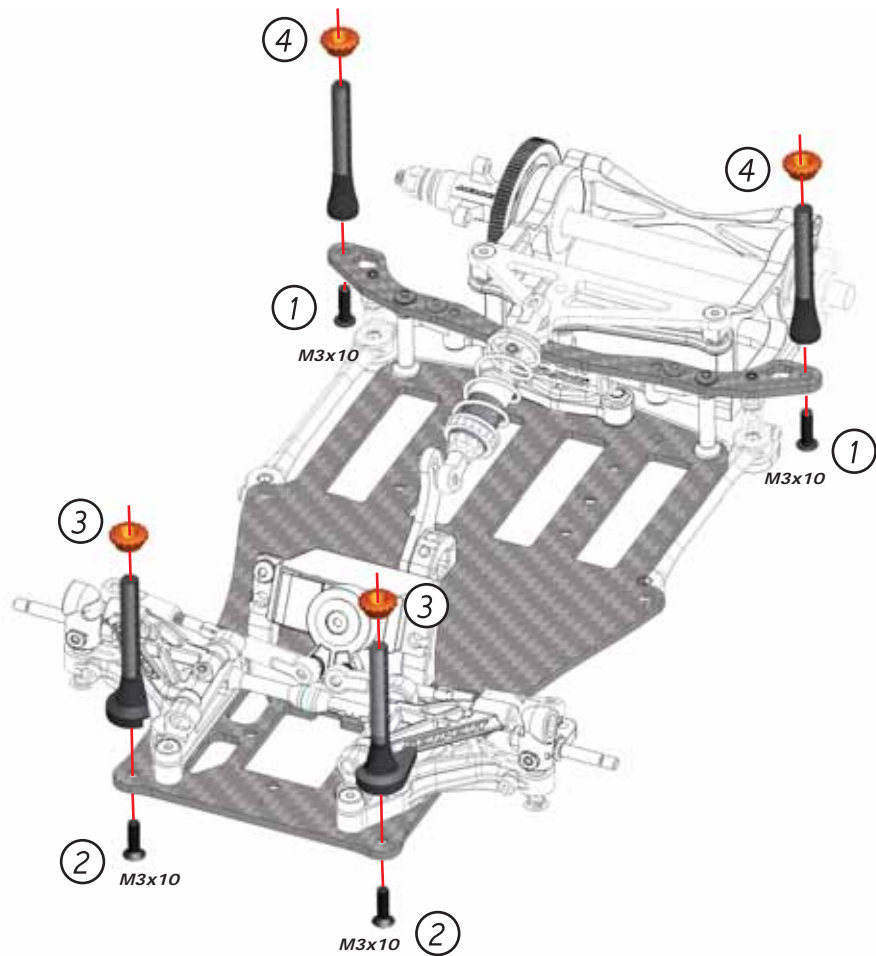
23 - Sanwa / KO / JR

24 - Hitec

25 - Futaba





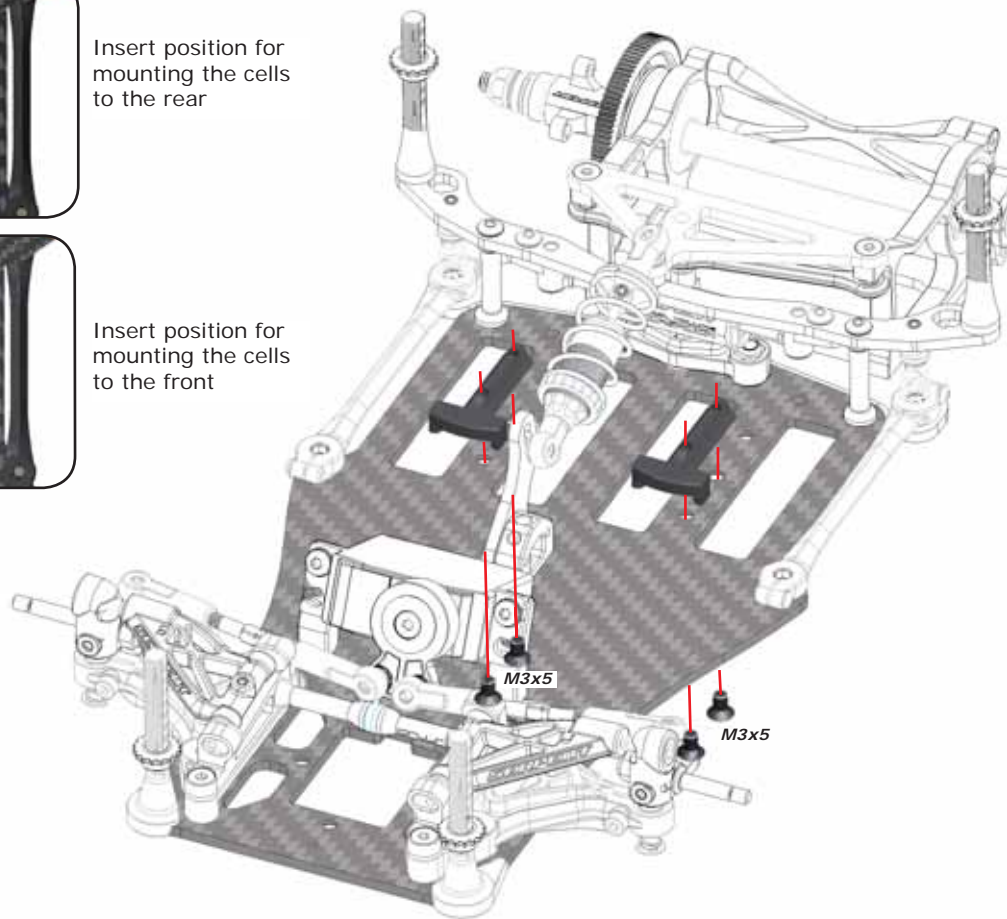


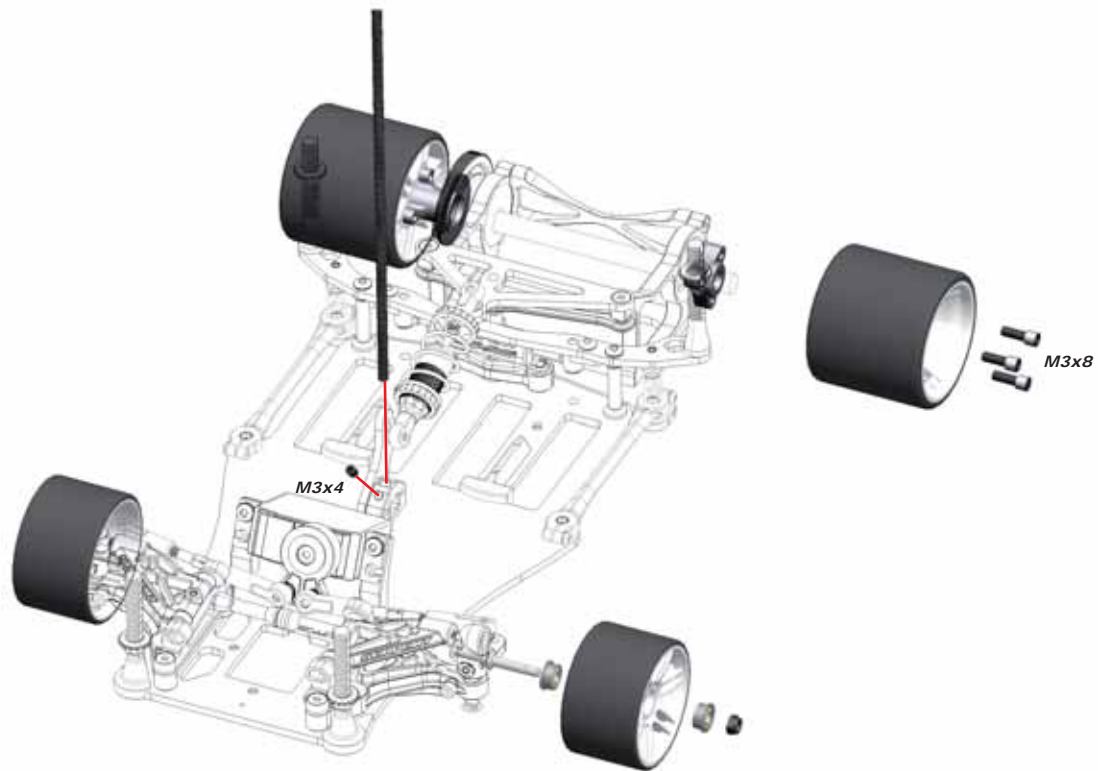


Insert position for mounting the cells to the rear



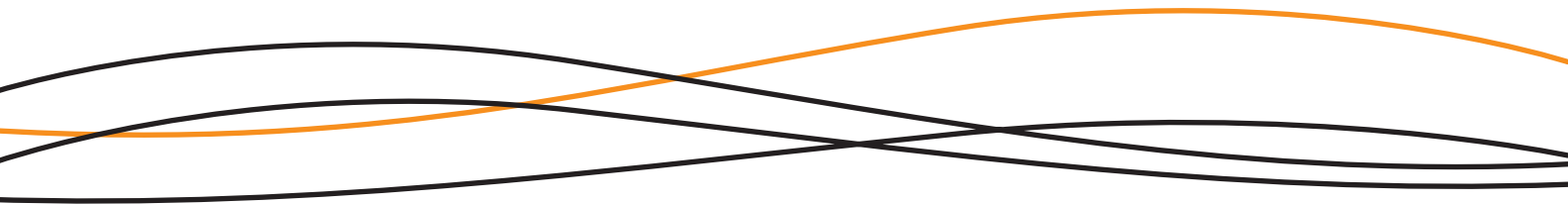
Insert position for mounting the cells to the front







REFERENCE GUIDE



- 411179 **S120L Manual**
 411180 **Decal sheets S120L (2)**

FRONT SUSPENSION

- 401025 Pivot ball-uni-4-5mm
 411024 Bumpsteershim 3x6x0,5 (10)
 411026 Upper Arm Mount 9L
 411028 Upper Arm Mount 9R
 411033 Distance Plate for Lower Arm 0.5mm
 411042 Pivot Ball for Front Suspension
 411048 Adjust Nut for Front Suspension
 411049 Distance Shim for Upper Arms
 411059 Hinge Pin
 411060 Kingpin
 411063 Pivot Ball for Upper Suspension Arm
 411064 Stub Axle
 411081 Upper Arm Adapter
 411082 Upper Suspension Arm left
 411083 Upper Suspension Arm right
 411084 Distance Plate for Upper Arms
 411085 Lower Suspension Arm left
 411086 Lower Suspension Arm right
 411087 Offset Steering Block left
 411088 Offset Steering Block right
 411122 Front nylon set
 411142 O-ring 2.3 x 1.5mm (10)
 411143 Wheel Nut low M3
 411181 Insert for lower A arm (4)
 411182 Cross brace tube L+R S120L (3)
 411206 Baljoint 4,5 (4)
 411218 Front spring 22lbs S120L (2)
 411219 Front spring 18lbs S120L (2)
 411220 Front spring 26lbs S120L (2)

CENTRAL ASSEMBLY

- 401025 Pivot ball-uni-4-5mm
 411007 Antenna
 411015 Shock Mount L+R
 411023 Steering Rod
 411024 Bumpsteershim 3x6x0,5 (10)
 411067 Battery Insert

- 411091 Servo Saver
 411093 Servo Saver insert 25T
 411095 Servo Saver insert 23T
 411096 Servo Saver insert 24T
 411184 Chassis carbon 2.5mm S120L
 411191 Cross brace S120L
 411192 Side-link S120L (2)
 411197 Center shock mount alu
 411198 Shock bracket carbon S120L
 411199 Pivot ball S120L (5)
 411200 Pod pivot support S120L
 411201 Standoff alu S120L (2)
 411202 Spring retainer S120L (4)
 411205 Servo mount alu S120L (3)
 411206 Baljoint 4,5 (4)
 411210 Side spring 5,5lbs S120L (2)

REAR ASSEMBLY

- 401025 Pivot ball-uni-4-5mm
 411009 Left side Clamp Hub
 411061 M3x8mm Socket Screw "special-head"
 411072 Bearing Adapter set (9x2)
 411187 Pivotball with shaft (2)
 411188 Pivotball shim (2)
 411189 Shock rocker S120L
 411190 Lower pod plate carbon S120L
 411193 Top plate carbon S120L
 411194 Motor pod left alu S120L
 411195 Motor pod right alu S120L
 411196 Motor pod backplate alu S120L
 411204 Rear axle carbon S120L

DIFFERENTIAL

- 411011 Trust Bearing Adapter
 411069 Diff Balls, 1/8"
 411166 Diff spring washer (4)
 411168 Diff lock nut M4 (10)
 411183 Differential-set S120L
 411185 Diff hub S120L
 411186 Diff washer S120L (2)

SHOCK ABSORBERS

- 411018 Monoshock Body
 411019 Shock Body
 411020 Shock Spring Holder
 411028 Revision set (o-ring, washers, clips)
 411041 Shock Spring Adjust Nut
 411044 Shock Cap
 411045 Shock Seal Washer
 411046 Shock Piston 3-hole
 411047 Shock Piston 2-hole
 411050 Monoshock Cap
 411056 Monoshock Shock shaft
 411057 Shock shaft
 411097 Foam Insert for Shock
 411120 Shock-absorber-set
 411121 Mono-shock-absorber-set
 411140 O-ring 6.0 x 1.0mm (10)
 411141 O-ring 2.0 x 2.0mm (10)
 411203 O-ring for spring adjuster (5)
 411207 Baljoint 4,5 short (2)
 411215 Center spring 14lbs S120L

BODYMOUNT

- 411040 Body Adjust Nut
 411070 Body Mount
 411092 Body Mount front

BEARINGS

- 411073 Axial Ball Bearing 4.2x9x4
 411074 Ball Bearing flanged 1/4x3/8x1/8 (2)
 411075 Ball Bearing 1/4x3/8x1/8 (2)
 411077 Ball bearing, flanged 1/8x5/16x9/64 (2)
 411124 Bearing-set standard

FASTENERS

- 110100 screw allen countersunk m3x10 (10)
 110104 screw allen countersunk M3x8 (10)
 110108 screw allen roundhead m3x6 (10)
 110109 screw allen roundhead m3x10 (10)
 110114 setscrew allen m3x8 (10)
 110116 setscrew allen m3x3 (10)

SINCO *link*



SERPENT

The logo for SILQ link, featuring the word "SILQ" in a stylized, outlined orange font and the word "link" in a smaller, white, cursive script font to its right.

SILQ link

The logo for SERPENT, featuring the word "SERPENT" in a bold, italicized, orange-outlined font.

SERPENT

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