

INSTRUCTION MANUAL

& REFERENCE GUIDE

INTRODUCTION

Serpent enters the competitive electric 1/10th scale pan car market with the S100 World GT, 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 link-type rear support, alu-carbon rear motorpod, floating horizontal damper, quick and easy tweak adjustment and top quality materials throughout, the S100 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 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.

SETUP

In certain assembly steps you need to make basic adjustments, which will give you a good initial setup for your Serpent S100. Fine-tuning the initial setup is an essential part of building a high-performance racecar like your S100.

EXPLODED VIEWS AND PARTS LIST

The exploded views and parts lists for the Serpent S100 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 car 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 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 S100 is accessible from the Serpent S100 product page found on Serpent.com and can be accessed by simply typing **serpent.com/410050** into your web browsers address bar.

From the Serpent S100 product page you will find the very latest information about your Serpent S100: 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.

CONTENTS

ASSEMBLY INSTRUCTIONS	6
REFERENCE GUIDE	33
PARTS LIST	38

USING THE MANUAL



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



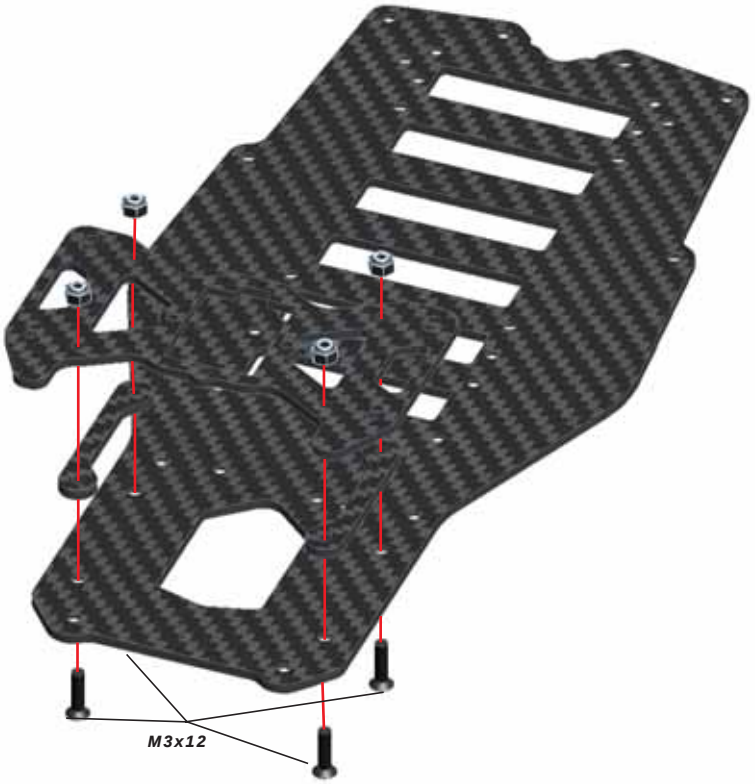
Apply transmission grease (Grey), threadlock* (Blue), CA glue* (Red)
or differential grease (Orange). (*Items not included.)

ASSEMBLY INSTRUCTIONS

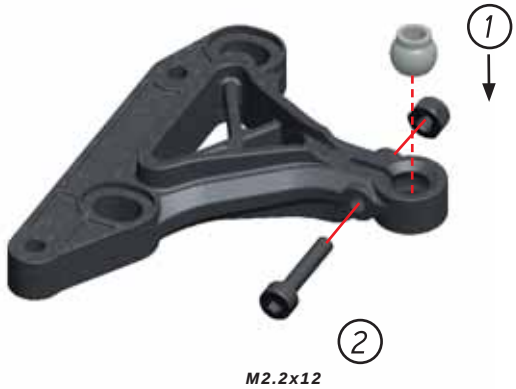
CA Glue

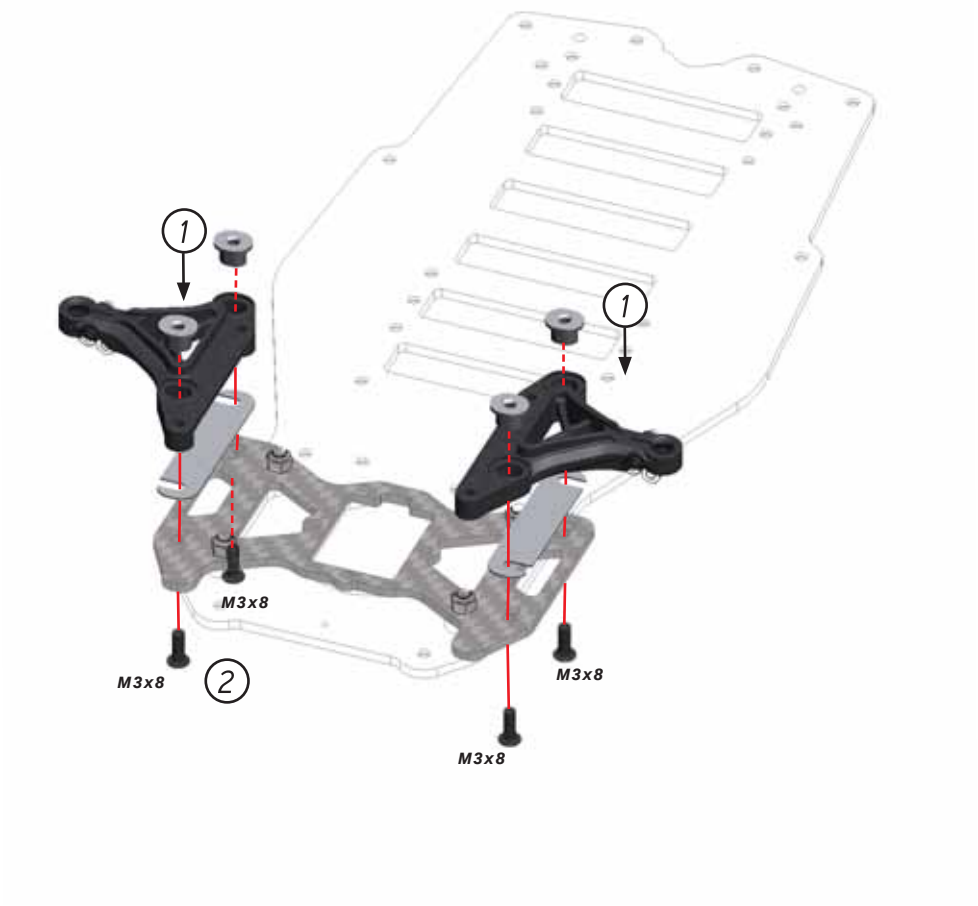
To prevent the risk of the carbon fibre splitting in the event of a crash you should apply CA Glue around the chassis' edge and battery slots as shown in red below.

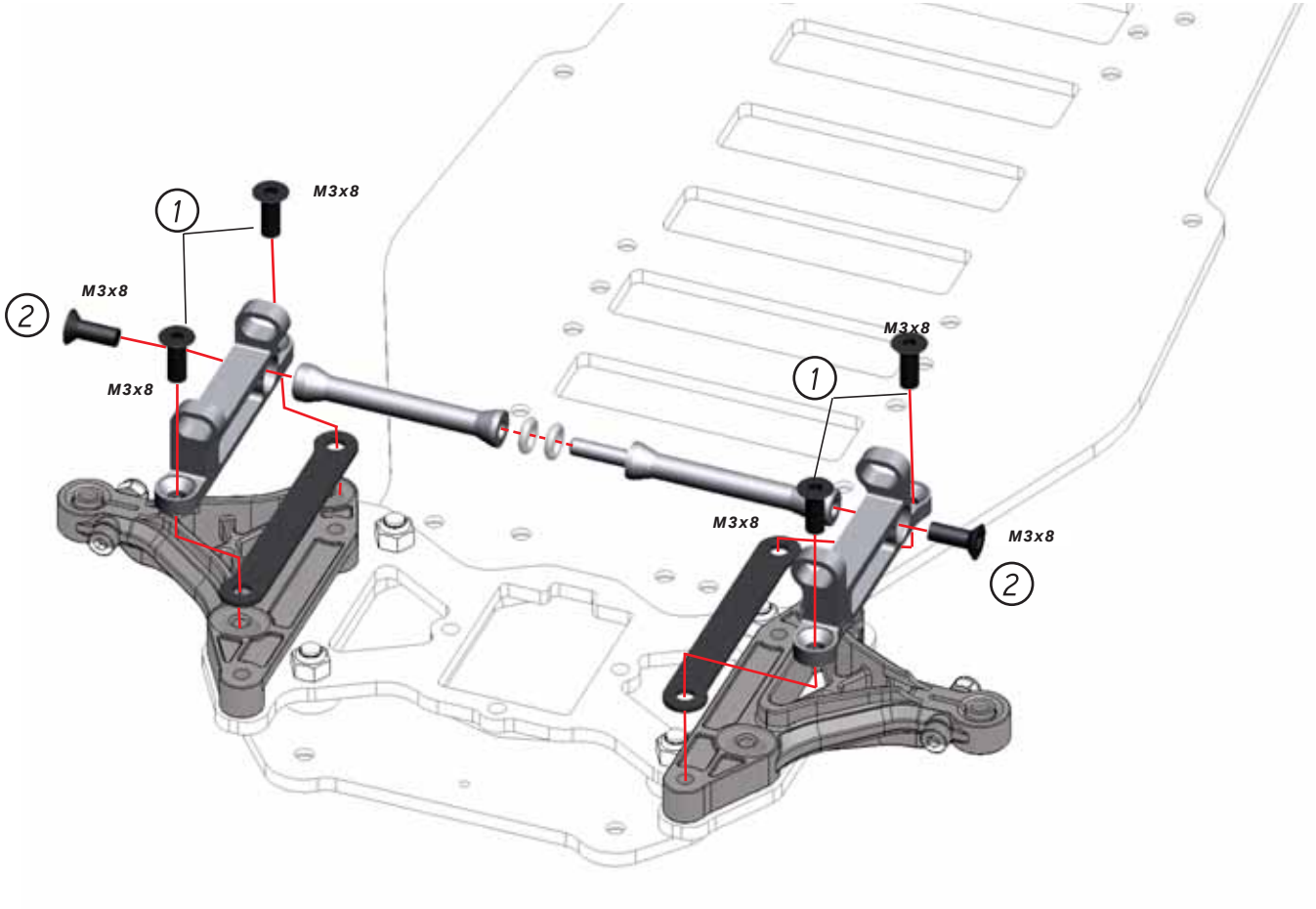


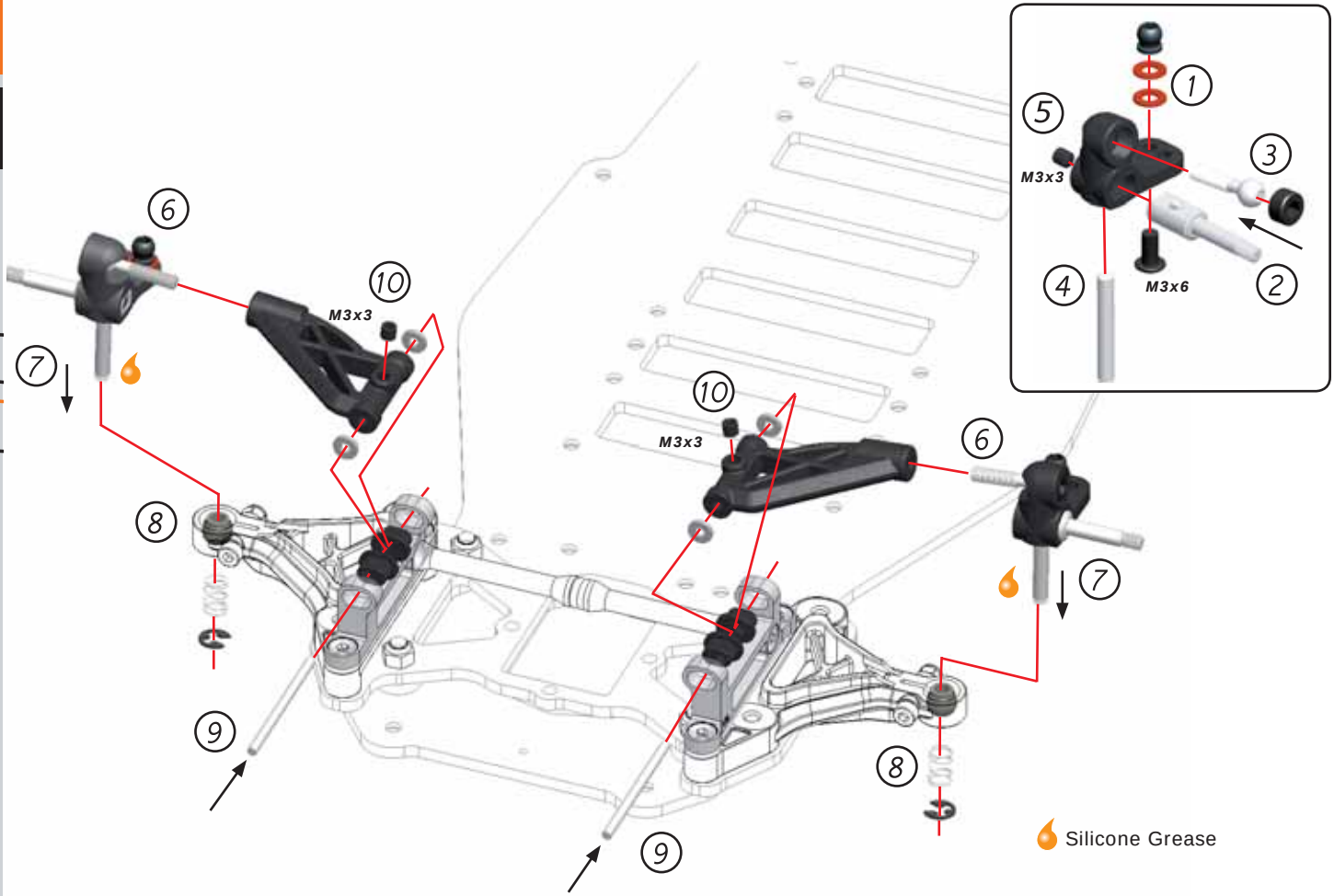

M3x12

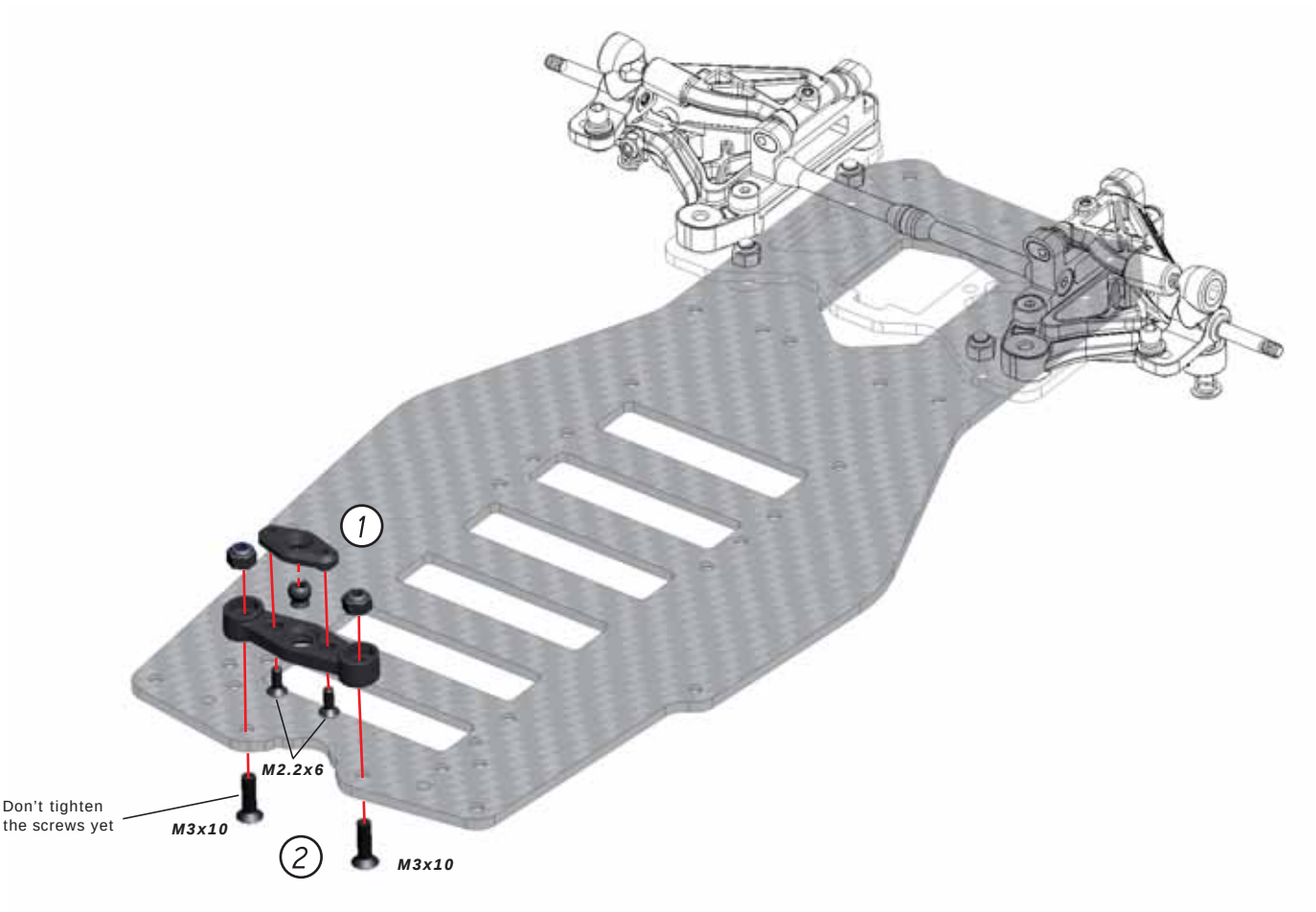

1
2
M2.2x12

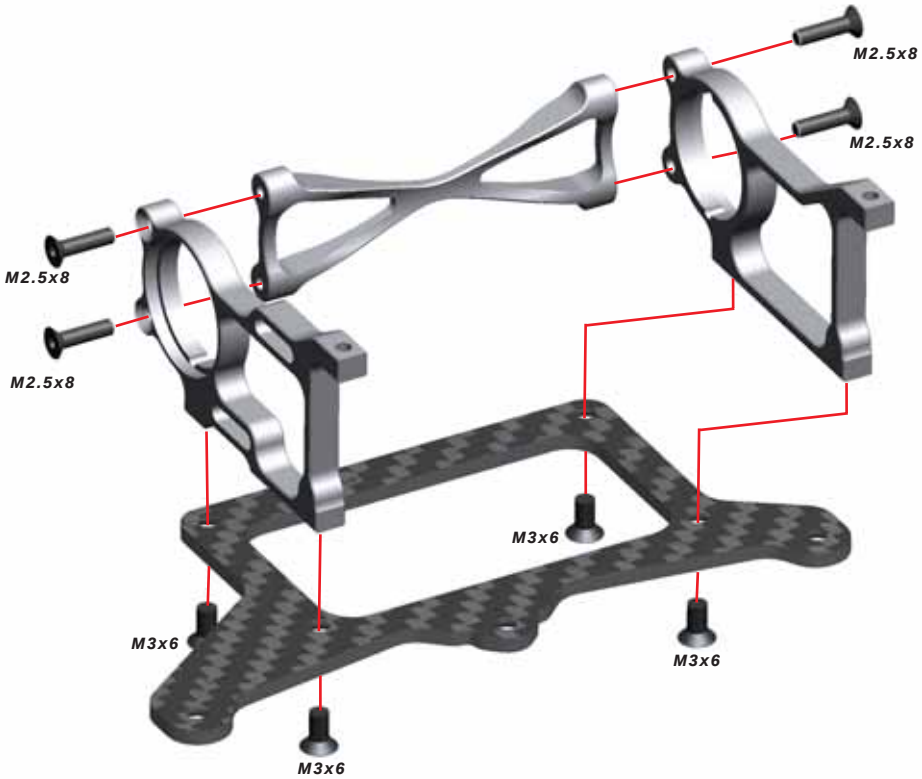

1
2
M2.2x12

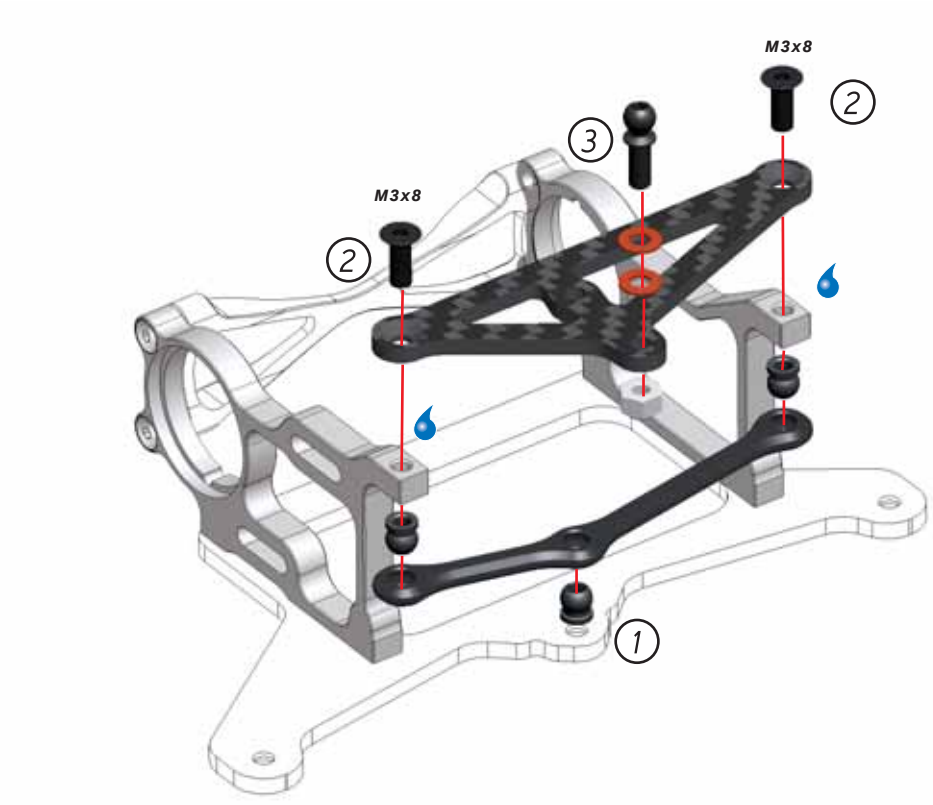

1
1
M3x8
M3x8
2
M3x8
M3x8

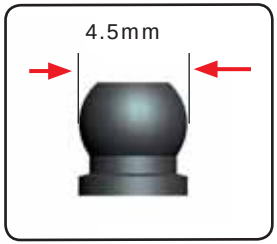

1
M3x8
2
M3x8
M3x8
M3x8
1
M3x8
M3x8
2


1
2
3
4
5
M3x3
M3x6
6
7
8
9
10
M3x3
10
M3x3
6
7
8
9
Silicone Grease

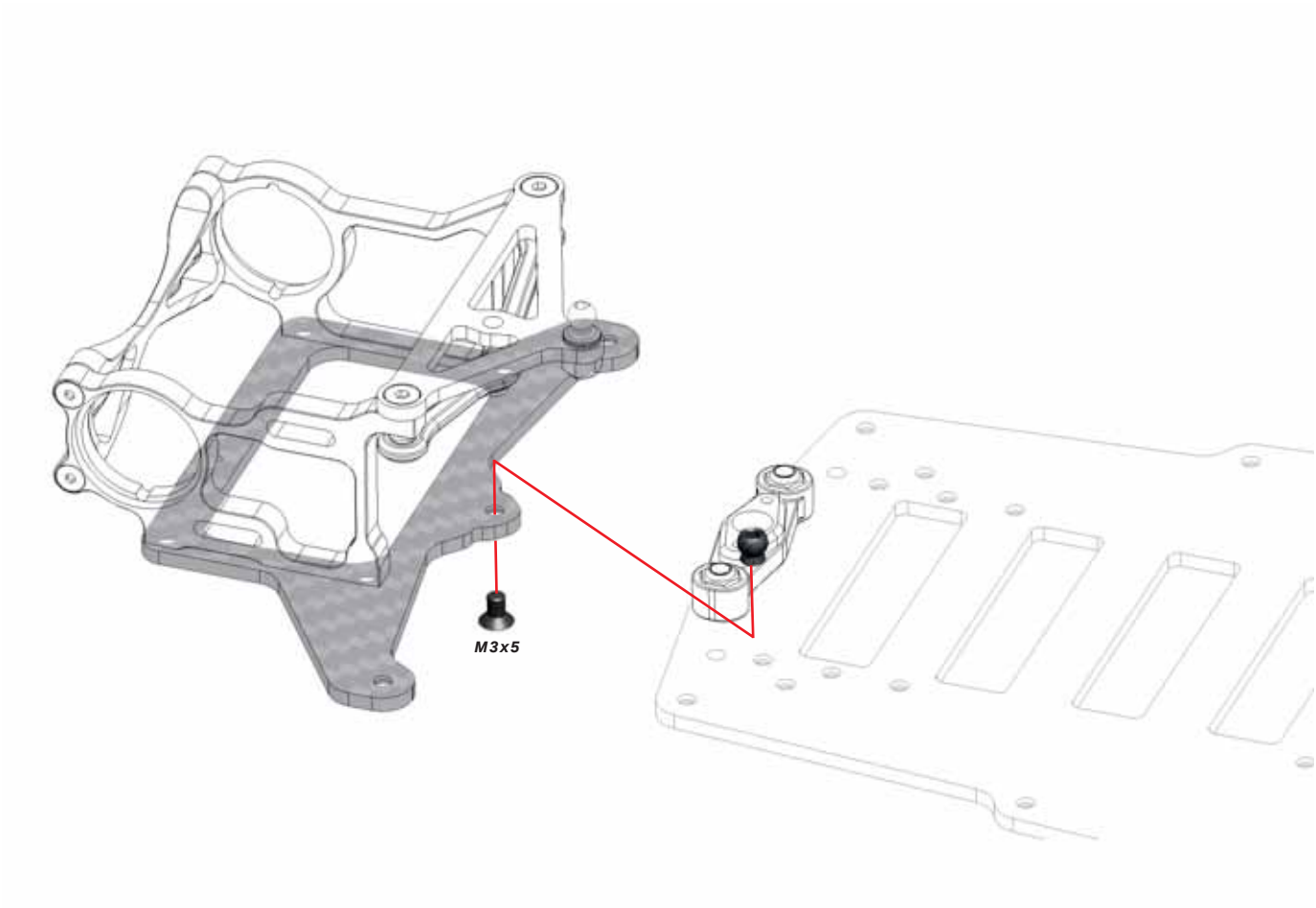

1
M2.2x6
Don't tighten
the screws yet
M3x10
2
M3x10

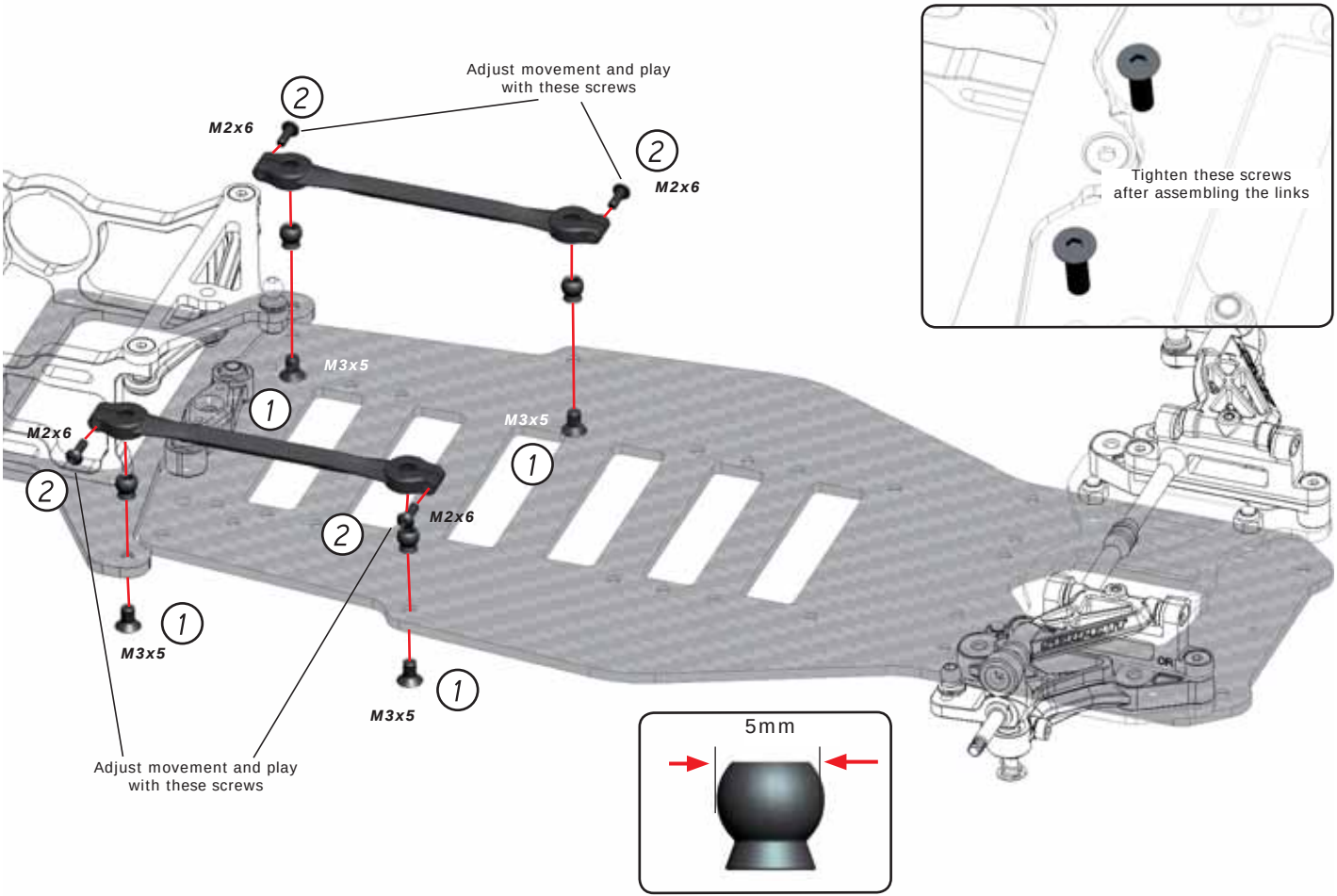

M2.5x8
M2.5x8
M2.5x8
M2.5x8
M3x6
M3x6
M3x6
M3x6





Thread lock


M3x5


Adjust movement and play
with these screws
2
M2x6
2
M2x6
M3x5
1
M3x5
1
M2x6
2
M2x6
2
1
M3x5
1
M3x5
Adjust movement and play
with these screws
Tighten these screws
after assembling the links
5mm

SHOCK ASSEMBLY



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



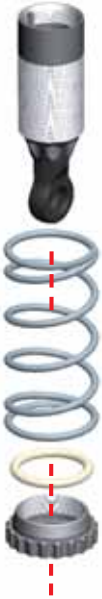
FILLING
Fill the shock body with the supplied shock absorber oil.

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.



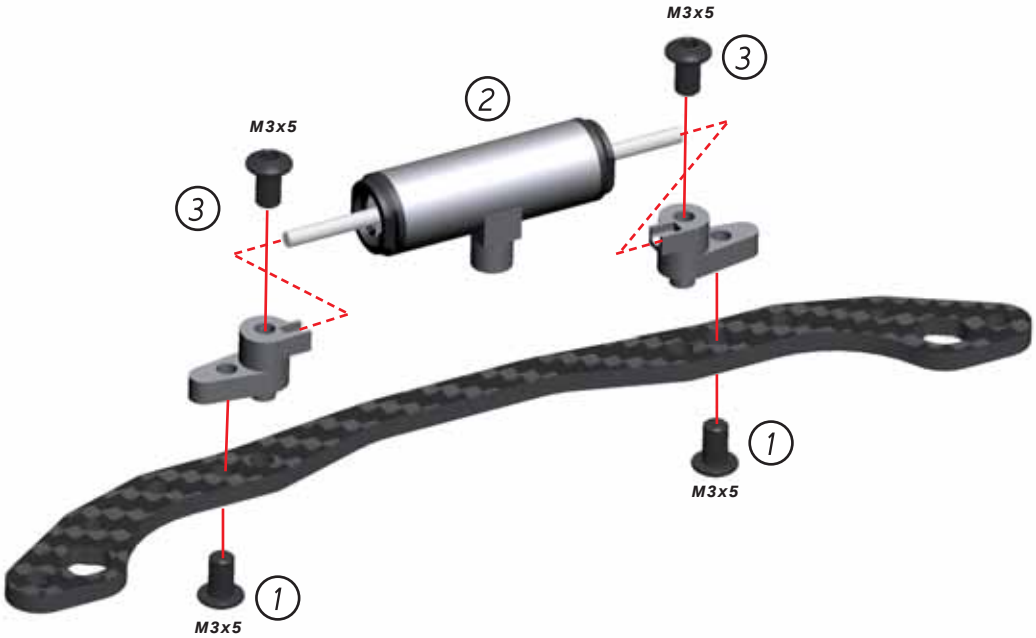
FOR BOTH SHOCKS
With the shock body filled with oil, slowly screw the end of the shock back onto the shock body.

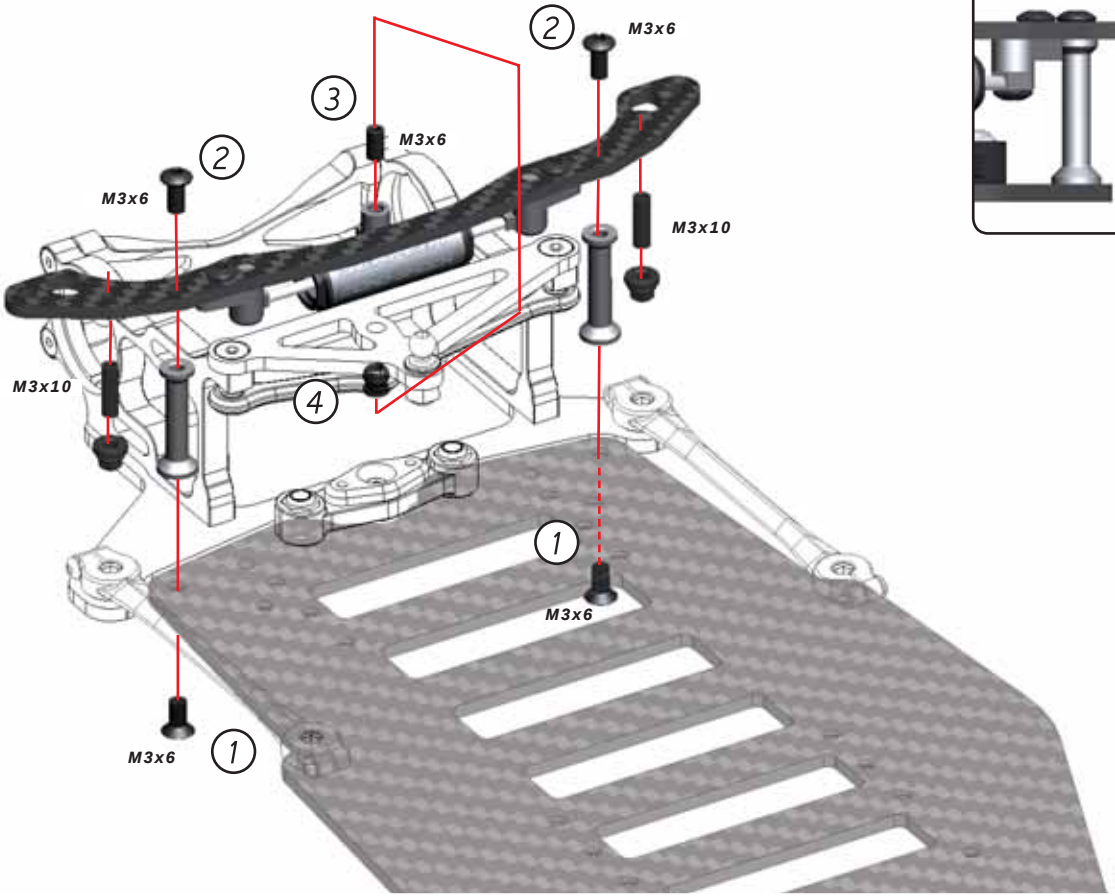
IMPORTANT!
Do not cross thread!

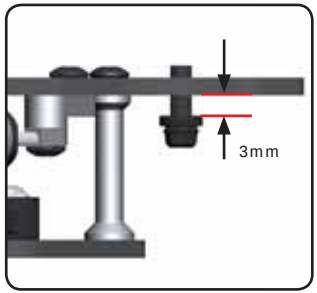
Oil will overflow through the built-in bleed channel in the threads. Tighten carefully until the bottom half seats against the shock body.

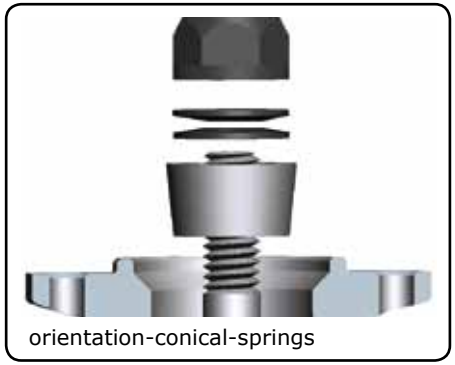


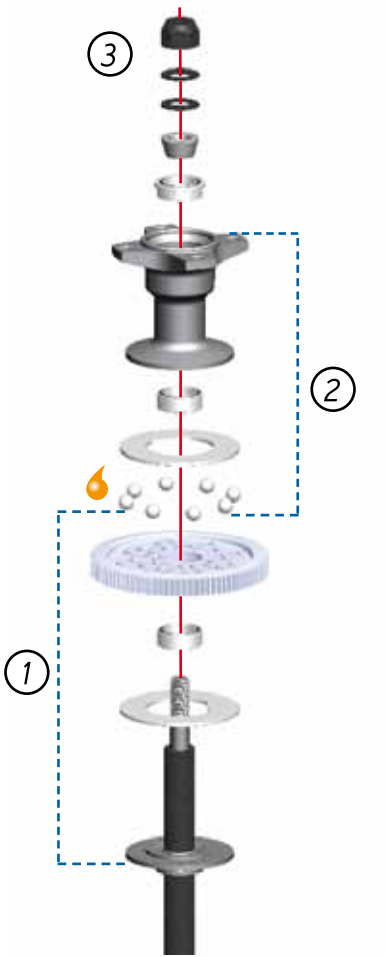



M3x5
3
2
M3x5
3
1
M3x5
1
M3x5


2
M3x6
3
M3x6
2
M3x6
M3x10
M3x10
4
1
M3x6
M3x6
1


3mm

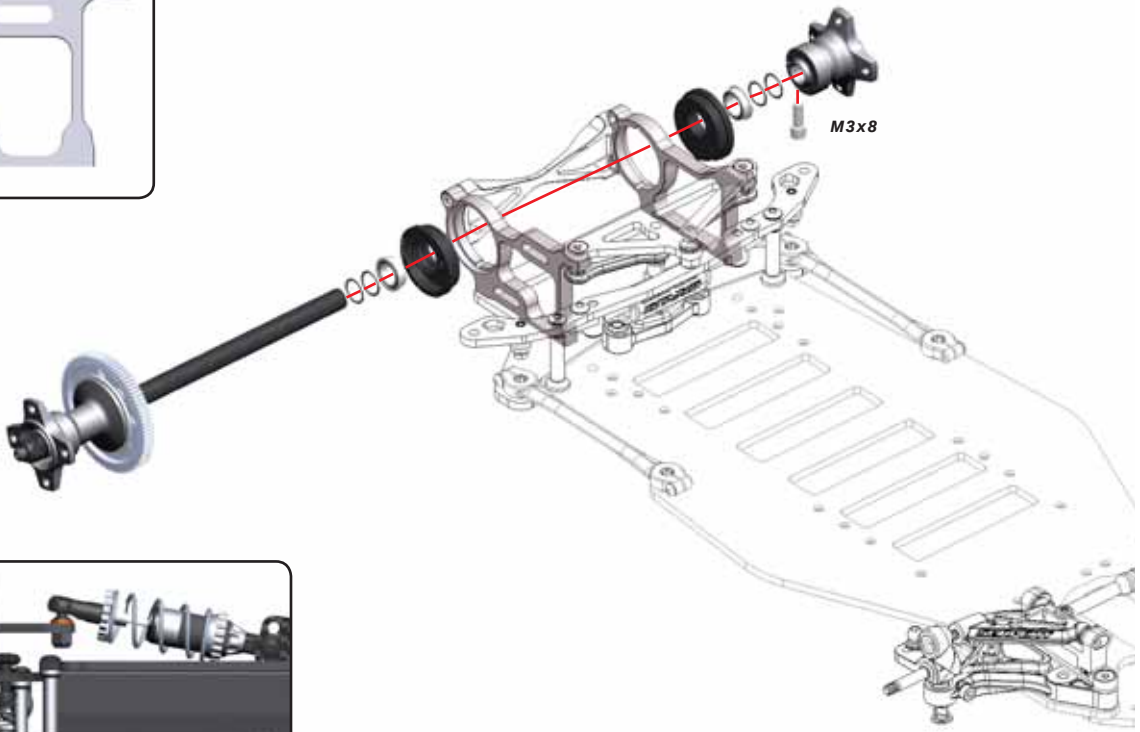

orientation-conical-springs



Silicone Grease

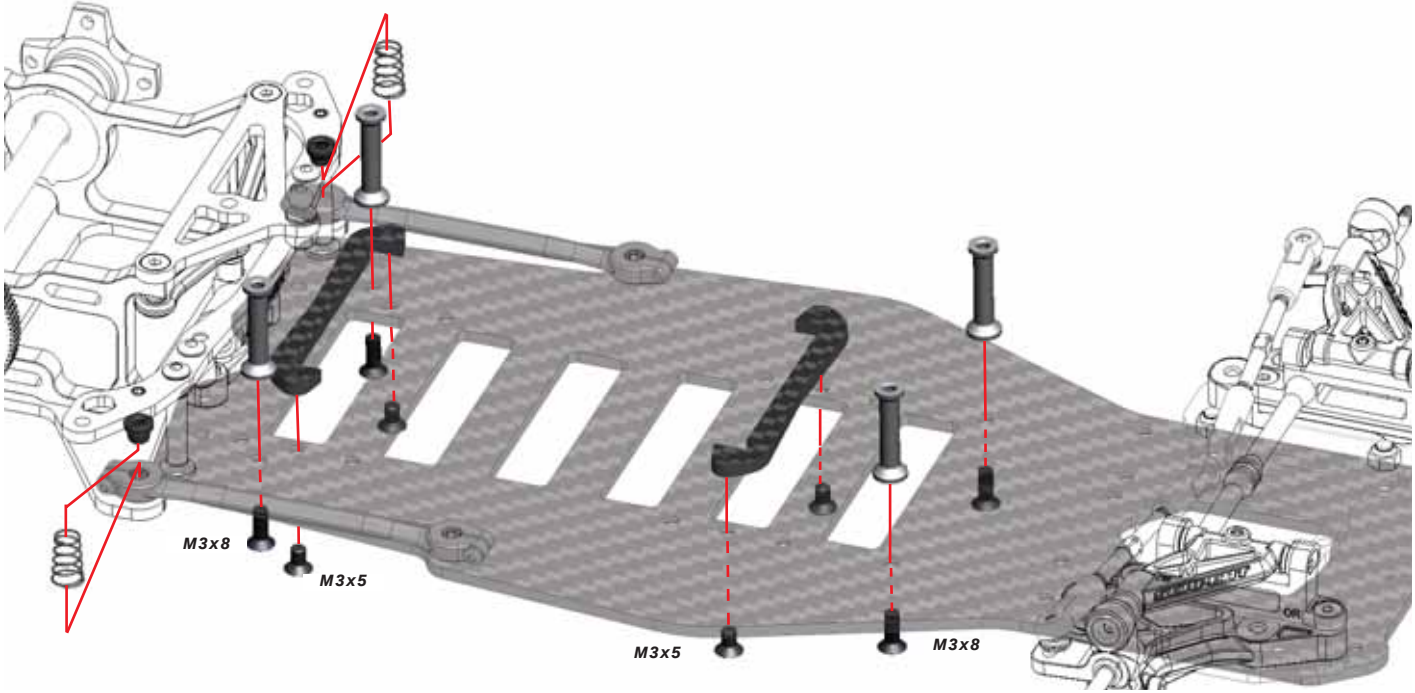
Note Insert orientation



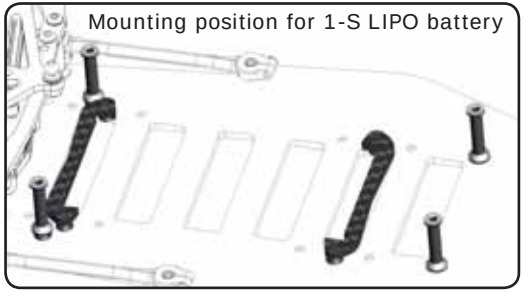




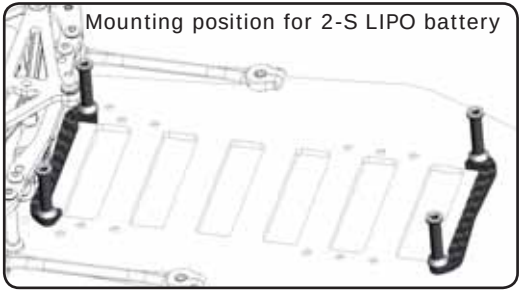
Ride Height of 3.5mm



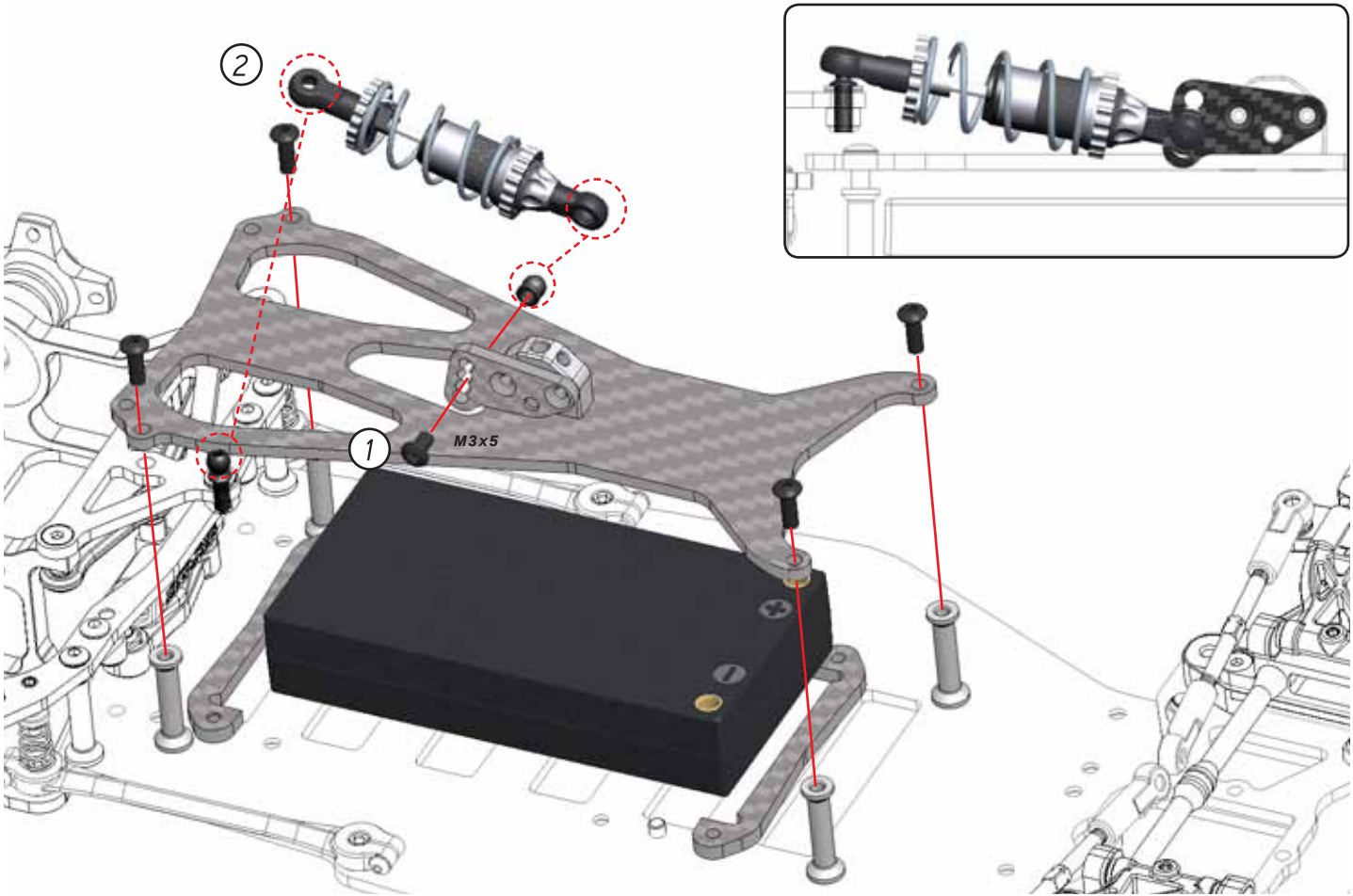
Mounting position for 1-S LIPO battery

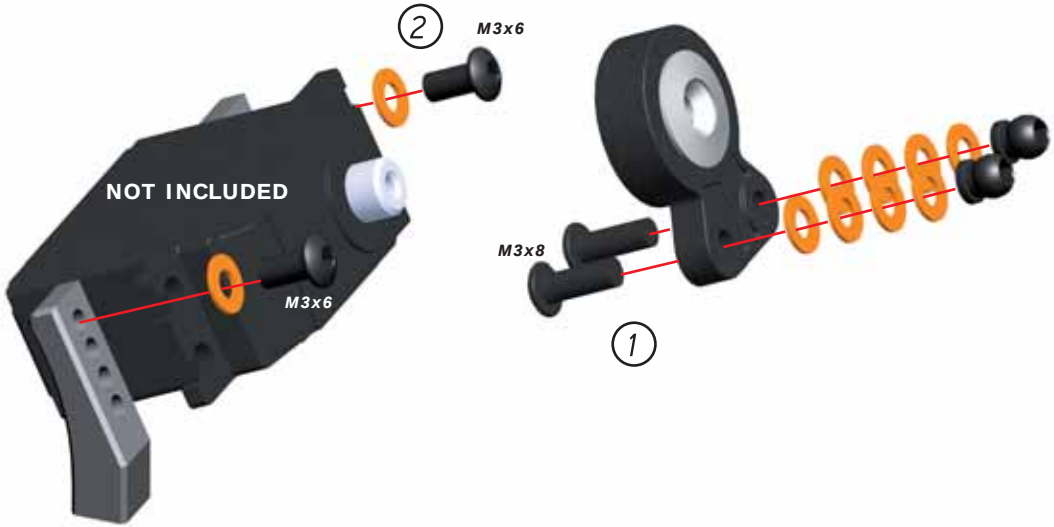


Mounting position for 2-S LIPO battery

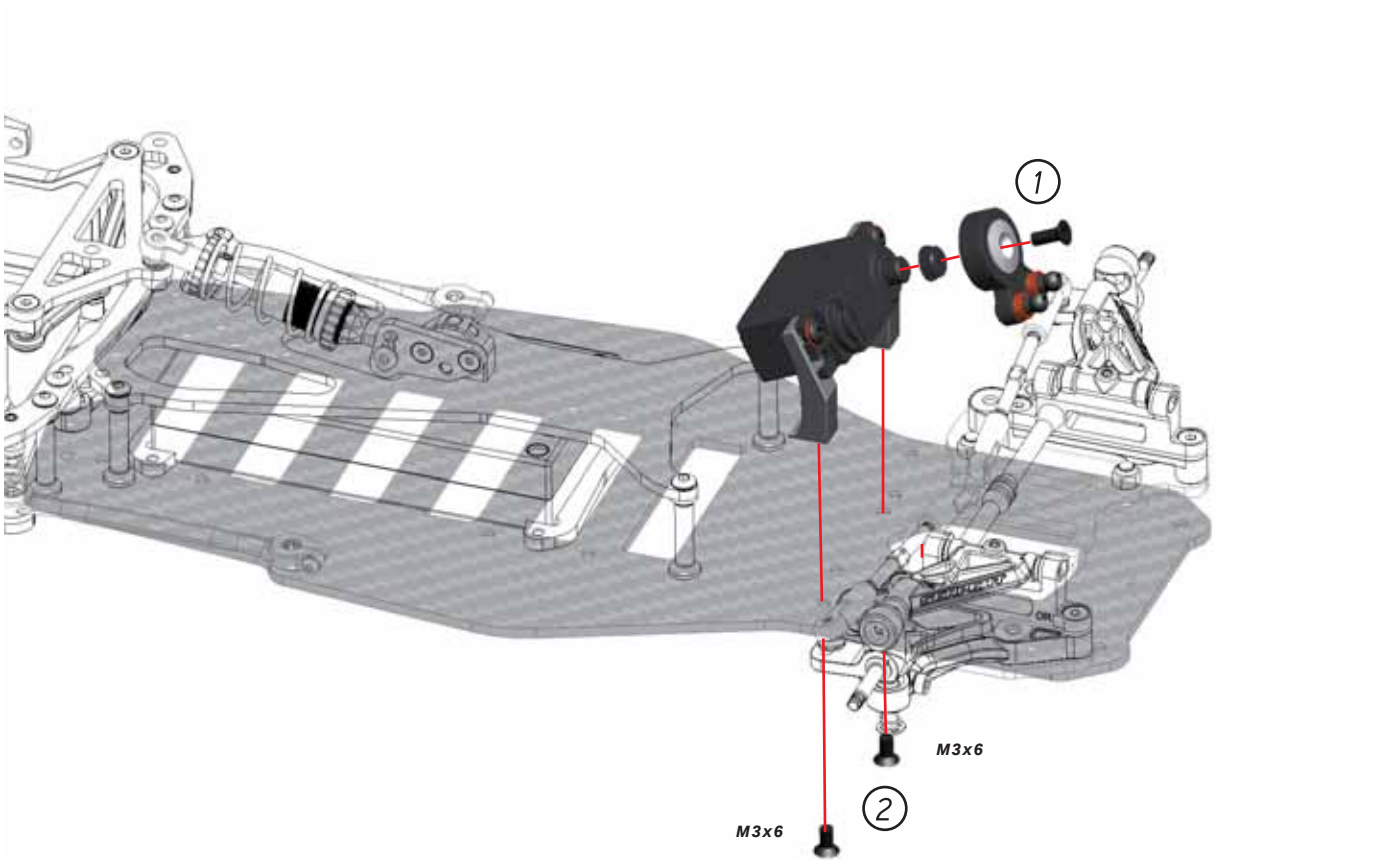


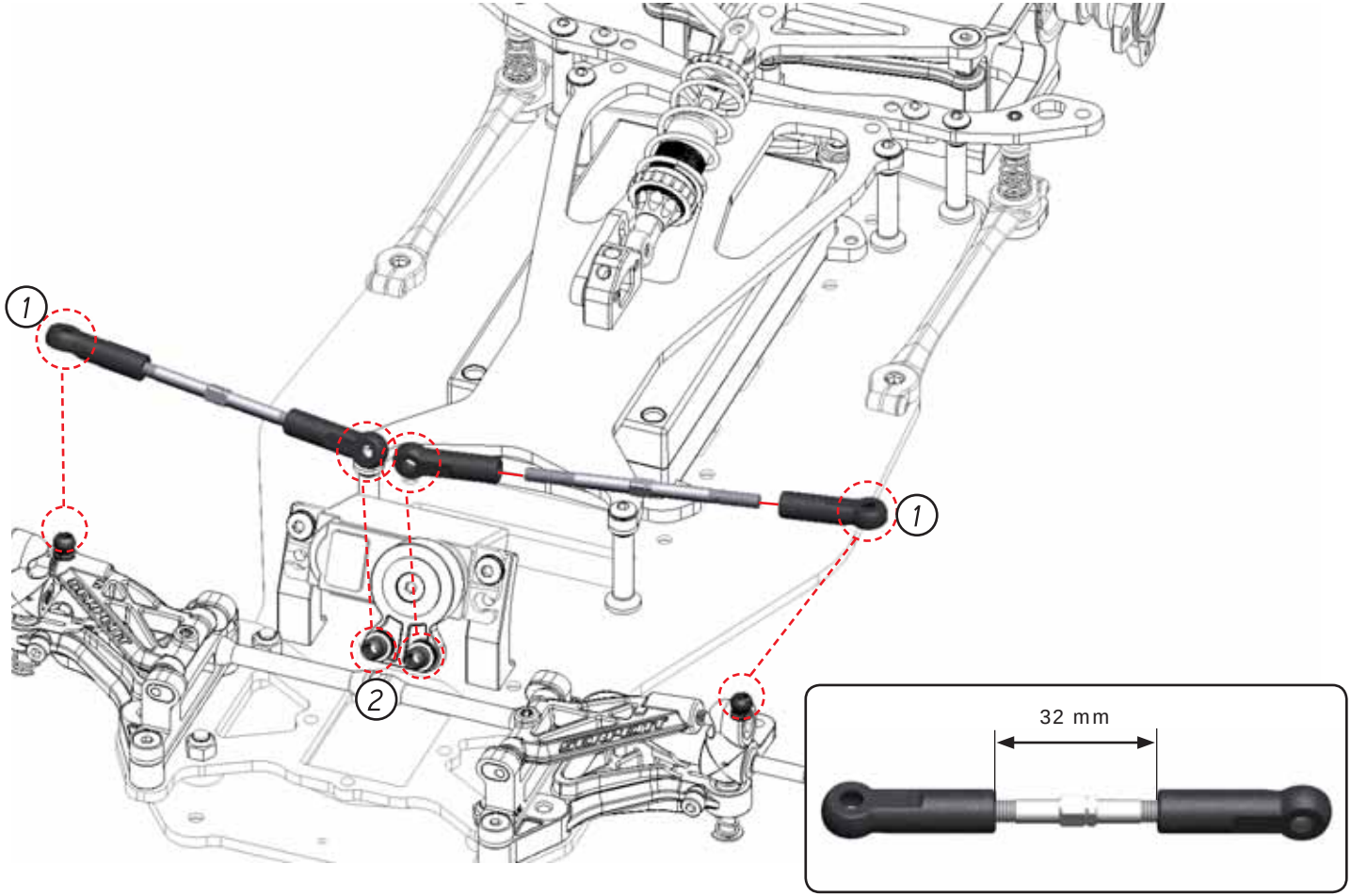

M2.5x8
M3x6

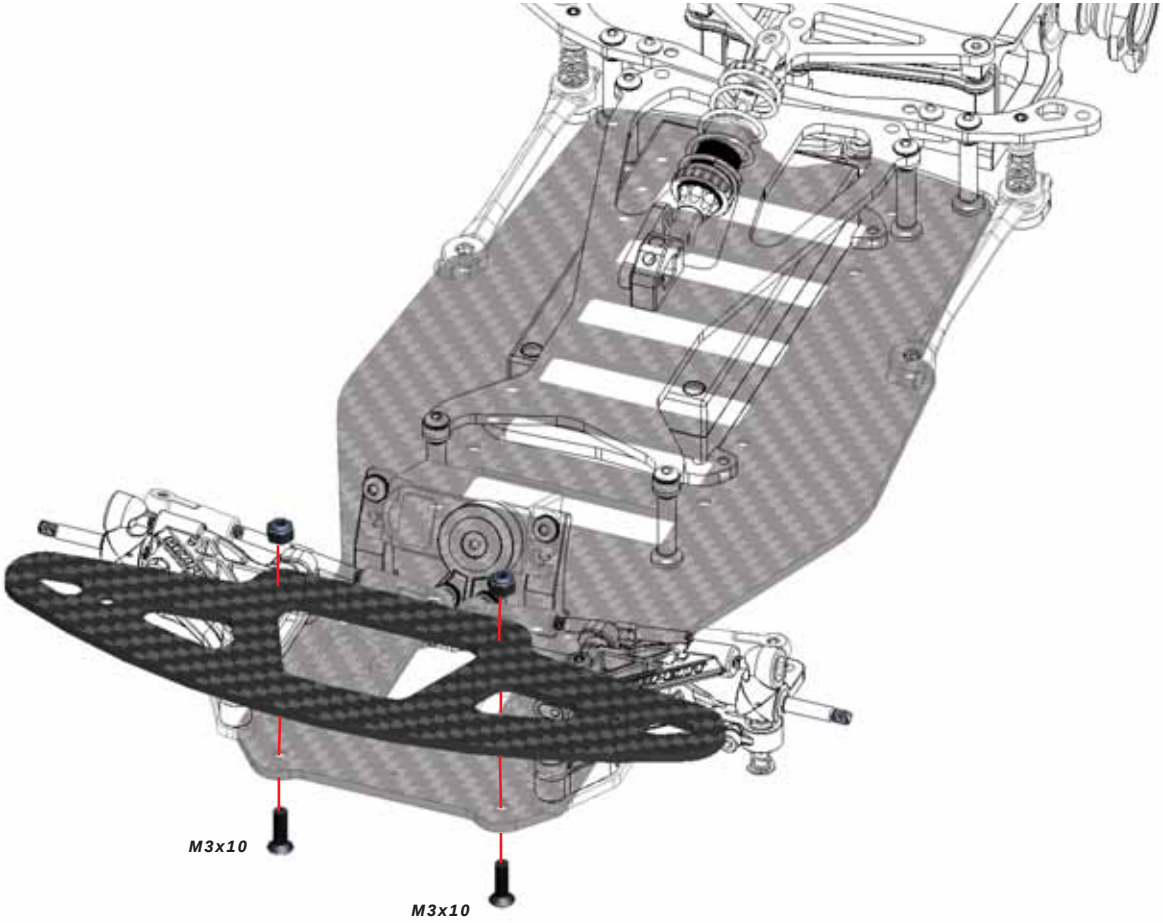

2
1
M3x5

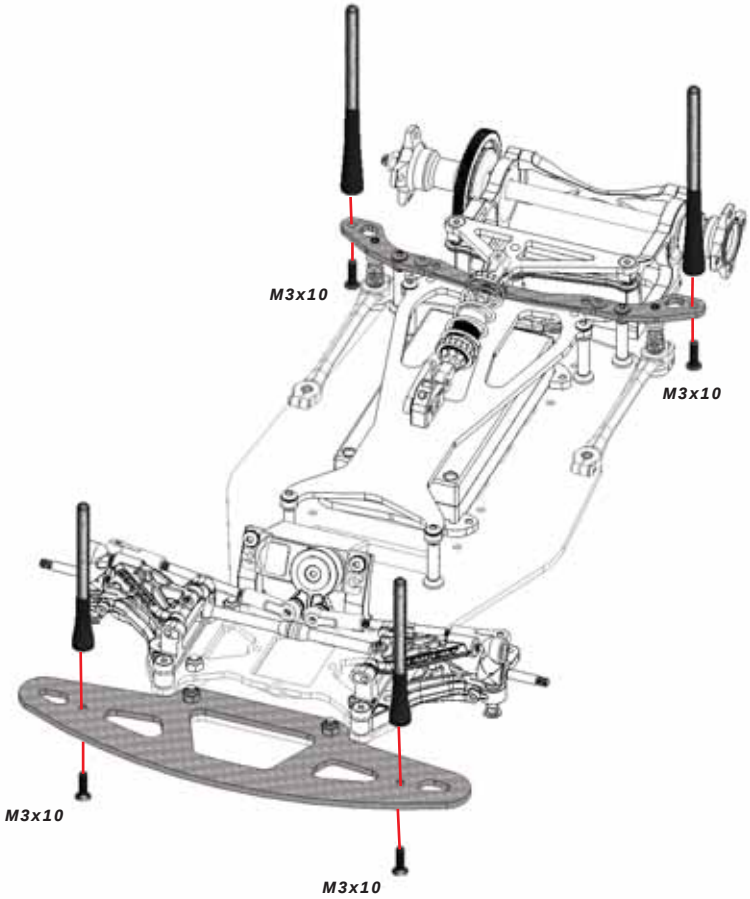


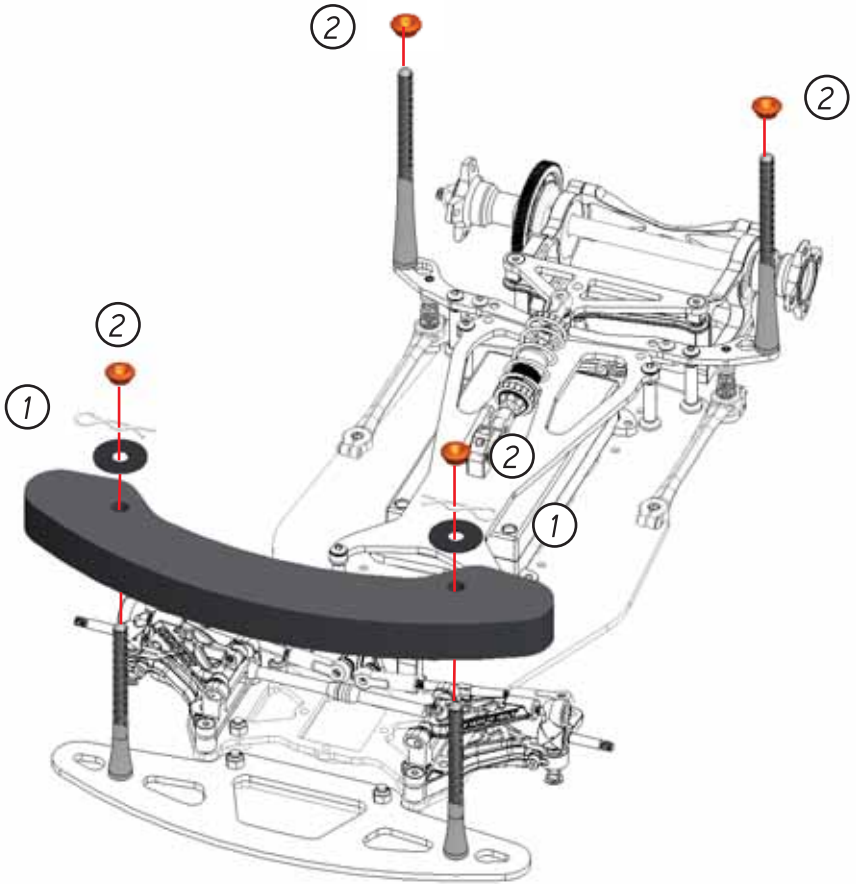
Use the following servo saver insert with these brands of servos.
23 - Sanwa / KO / JR
24 - Hitec
25 - Futaba

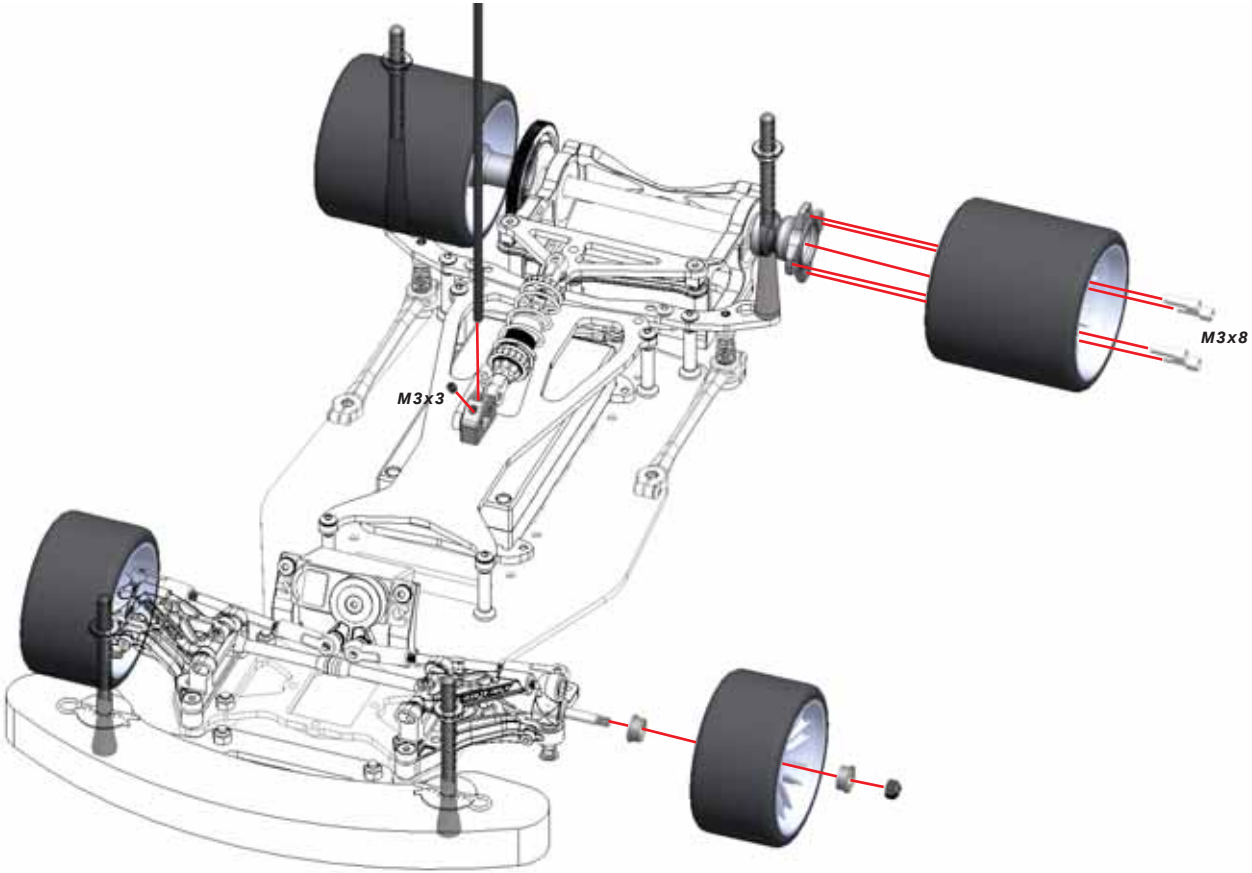

1
M3x6
2
M3x6


1
1
2
32 mm


M3x10
M3x10


M3x10
M3x10
M3x10
M3x10

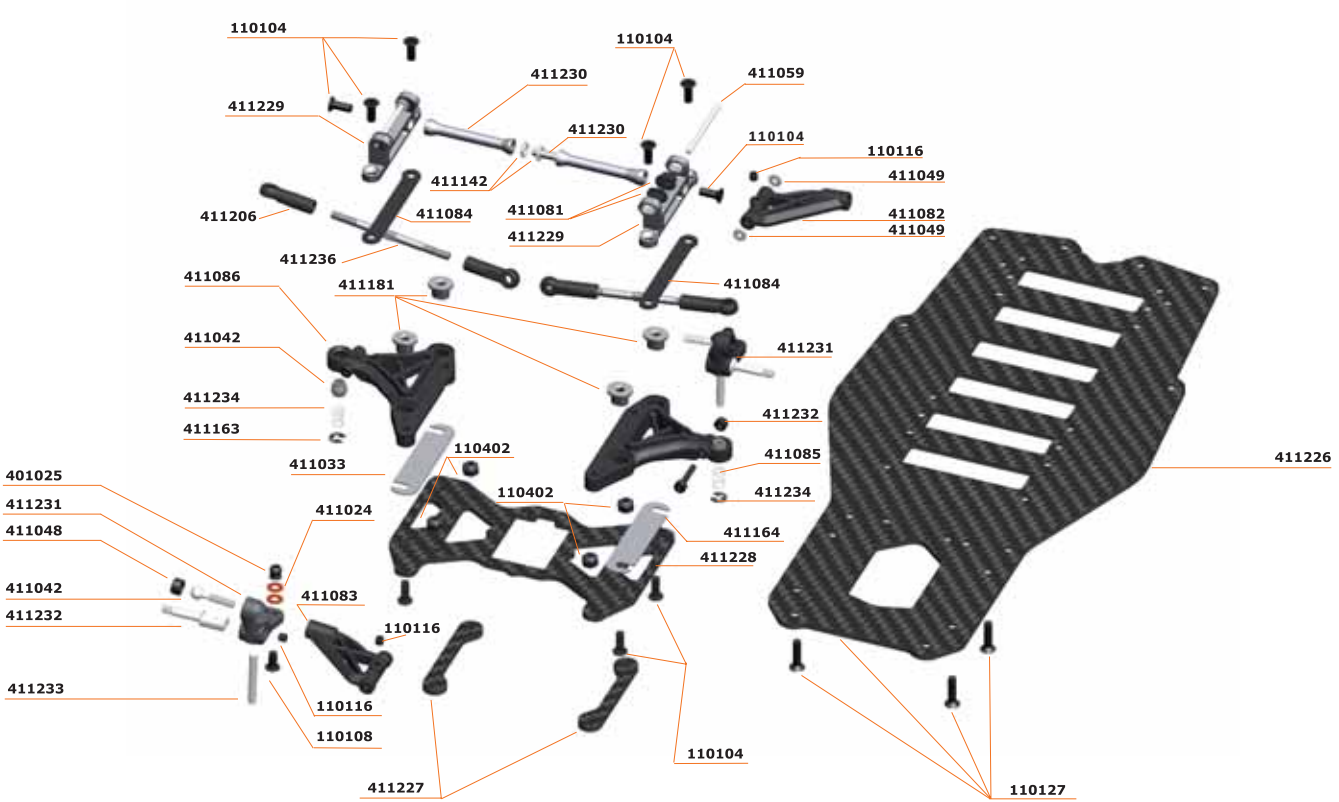

2
2
2
1
2
1

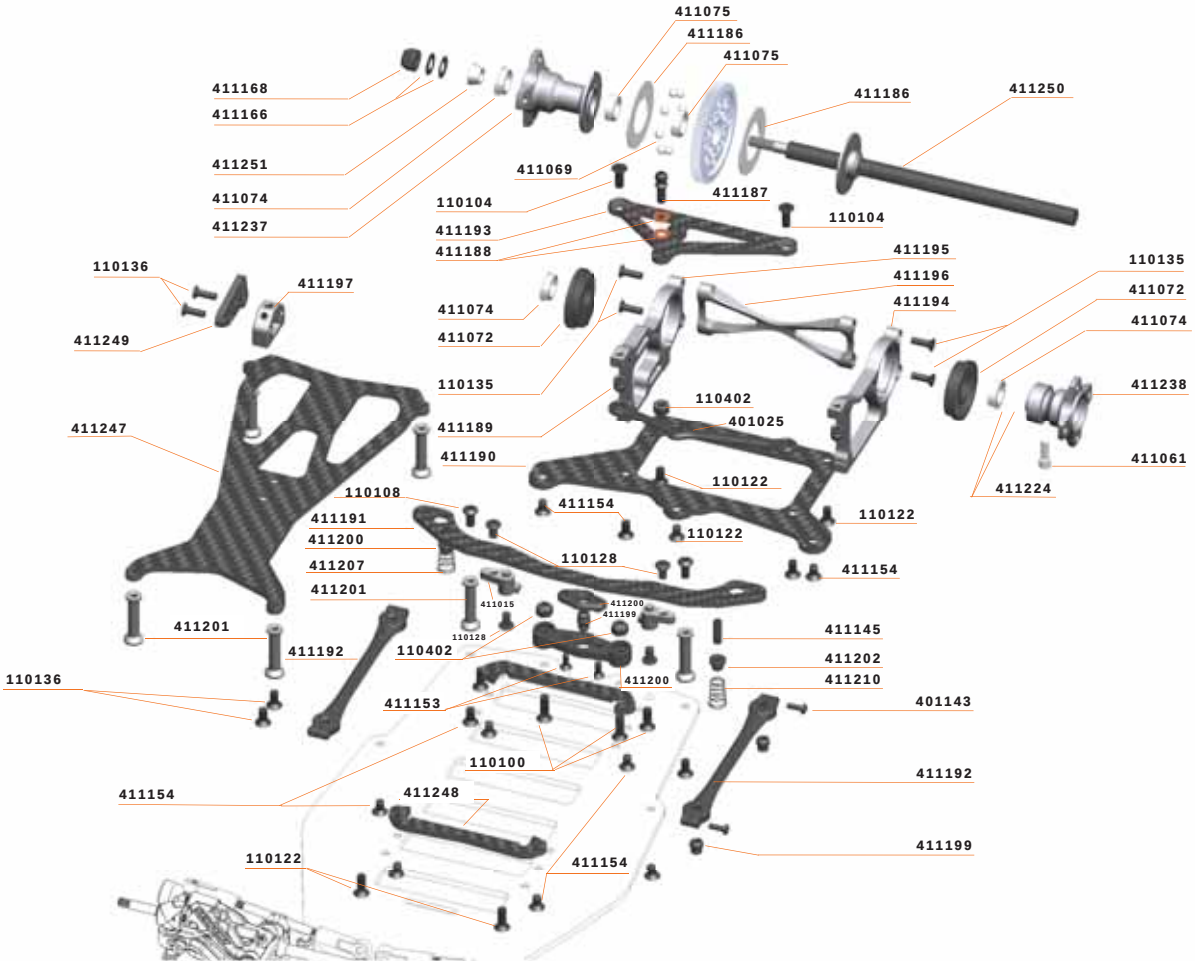

M3x3
M3x8

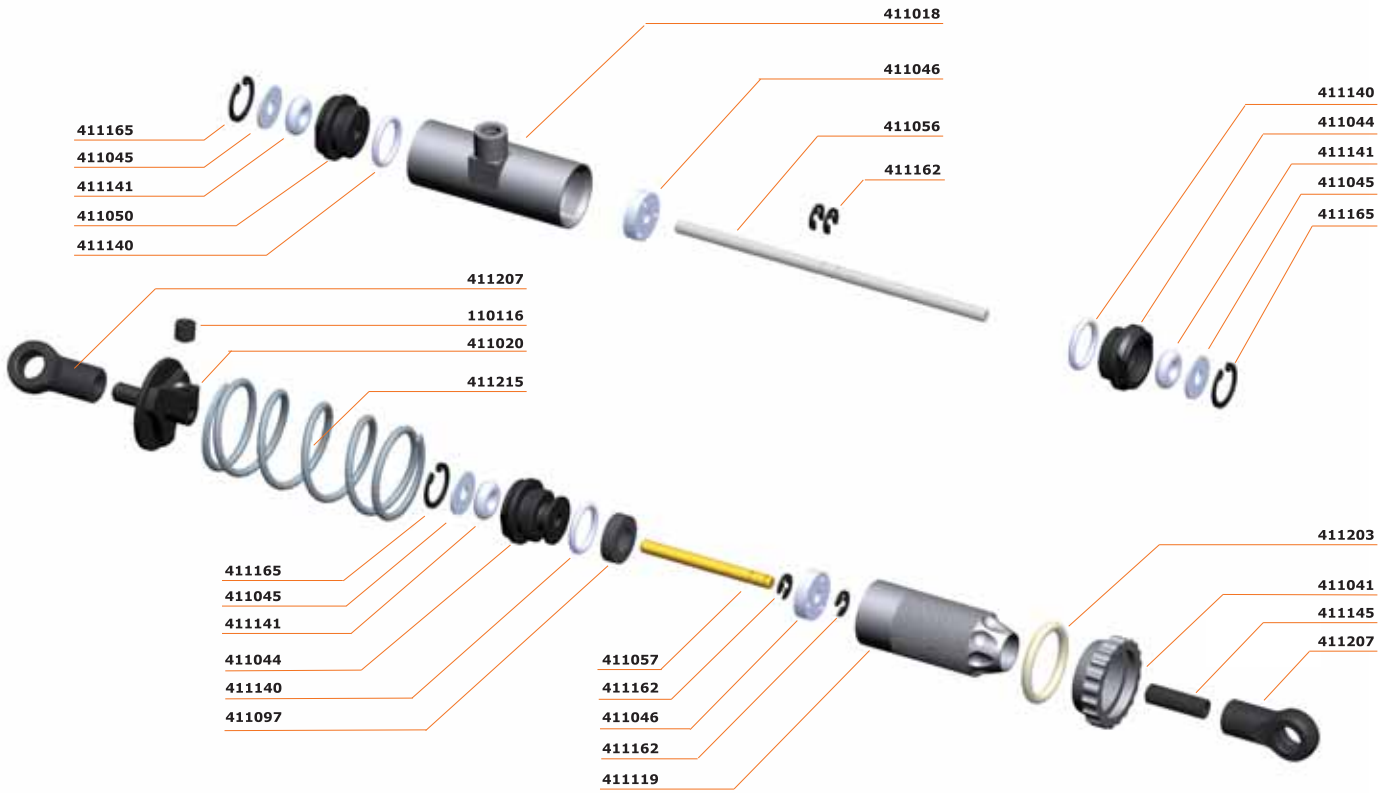


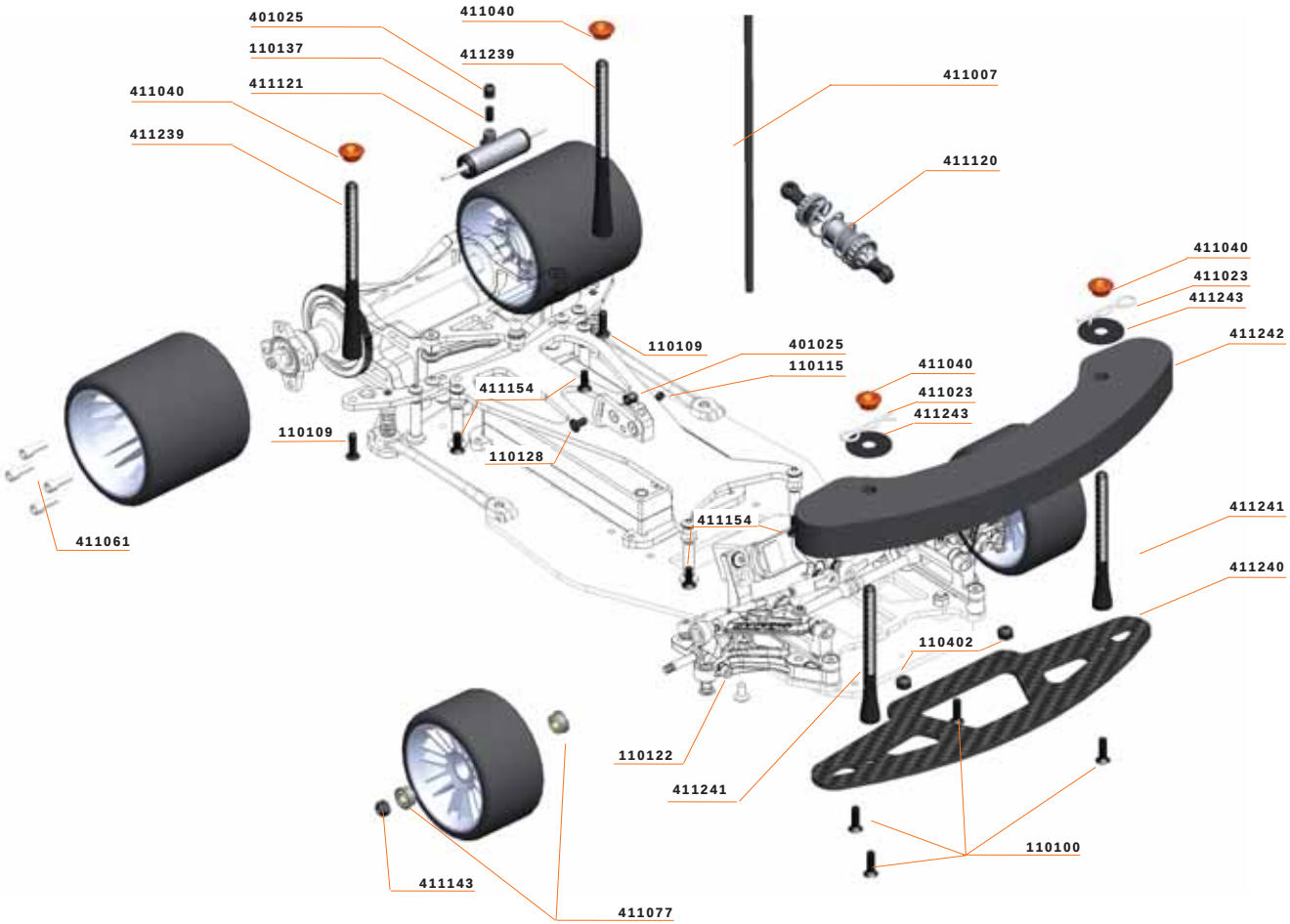
REFERENCE GUIDE




110104
110104
411230
411059
411229
411230
110104
110116
411142
411049
411206
411084
411081
411082
411229
411049
411236
411086
411181
411084
411042
411231
411234
411232
411163
110402
411033
411085
411226
401025
110402
411234
411231
411024
411164
411048
411228
411042
411083
411232
110116
411233
110116
110108
110104
411227
110127


411075
411186
411075
411168
411166
411251
411074
411237
411069
411187
110104
110104
411193
411188
411186
411250
110136
411197
411249
411074
411072
411195
411196
411194
110135
411072
411074
110135
411238
411247
411189
411190
110402
401025
411061
411224
110122
110108
411154
110122
411191
411200
411207
411201
110128
411154
411201
411192
110402
411145
411202
411210
110136
411153
411200
401143
110100
411192
411154
411248
411199
110122
411154


411018
411046
411056
411162
411165
411045
411141
411050
411140
411207
110116
411020
411215
411165
411045
411141
411044
411140
411097
411057
411162
411046
411162
411119
411140
411044
411141
411045
411165
411203
411041
411145
411207


401025
110137
411040
411121
411040
411239
411239
411040
411007
411120
110109
401025
110115
411154
110128
110109
411061
411040
411023
411243
411242
411040
411023
411243
411154
411241
411240
110402
110122
411241
110100
411143
411077

410050 Serpent S100 2wd pancar WGT

FRONT SUSPENSION
401025 Pivot ball-uni-4-5mm
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
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
411122 Front nylon set
411142 O-ring 2.3 x 1.5mm (10)
411227 Suspension spacer front S100 (2)
411228 Suspension plate front S100
411229 Suspension mount front 0deg L+R
411230 Cross brace L+R S100
411231 Steering blocks L+R S100
411232 Wheelaxle front S100 (2)
411233 Kingpin S100 (2)
411234 Spring front 10 lbs S100 (2)

CENTRAL ASSEMBLY
401025 Pivot ball-uni-4-5mm
411024 Bumpsteershim 3x6x0,5 (10)
411191 Cross brace S120L
411007 Antenna
411192 Side-link S120L (2)
411197 Center shock mount alu
411199 Pivot ball S120L (5)
411015 Shock Mount L+R
411200 Pod pivot support S120L
411201 Standoff alu S120L (2)
411202 Spring retainer S120L (4)
411206 Balljoint 4,5 (4)
411210 Side spring 5,5lbs S120L (2)
411091 Servo Saver
411093 Servo Saver insert 25T
411095 Servo Saver insert 23T
411096 Servo Saver insert 24T
411226 Chassisplate S100 carbon
411235 Servo mount S100 (3)
411236 Steering rod 48mm S100 (2)
411247 Top-deck, carbon, S100
411248 Batterybracket S 100 (2)
411249 Schockbracket lower carbon S 100

REAR ASSEMBLY
411061 M3x8mm Socket Screw "special-head"
411072 Bearing Adapter set (9x2)
411189 Shock rocker S120L
401025 Pivot ball-uni-4-5mm
411187 Pivotball with shaft (2)
411188 Pivotball shim (2)
411193 Top plate carbon S120L
411194 Motor pod left alu S120L
411195 Motor pod right alu S120L
411196 Motor pod backplate alu S120L
411190 Lower pod plate carbon S120L
411238 Clamp Hub left S100
411250 Rear axle S100

DIFFERENTIAL
411069 Diff Balls,1/8"
411166 Diff spring washer (4)
411186 Diff washer S120L (2)
411237 Diffhub S100
411251 Rear axle cone
411252 Differential-set S100

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 Balljoint 4,5 short (2)
411215 Center spring 14lbs S120L

BODYMOUNT
411040 Body Adjust Nut
411239 Body post long S100 (2)
411240 Bumper carbon S100
411241 Body post medium S100 (2)
411242 Bumper foam S100
411243 Bumper washer S100 (2)

BEARINGS
411074 Ballbearing flanged 1/4x3/8x1/8 (2)
411075 Ballbearing 1/4x3/8x1/8 (2)
411077 Ballbearing, flanged 1/8x5/16x9/64 (2)
411124 Bearing-set standard

FASTENERS

411123 Screw-set
110402 Nut nylock M3 (10)
411144 Nut nylock M2.2 (10)
411145 Setscrew allen M3x10mm (10)
110114 Setscrew allen M3x8 (10)
110137 Setscrew allen M3x6 (10)
411147 Setscrew allen M3x5mm (10)
401143 Screw allen cilinderhead M2x6 (10)
110116 Setscrew allen M3x3 (10)
110109 Screw allen roundhead M3x10 (10)
110124 Screw allen roundhead M3x8 (10)
110108 Screw allen roundhead M3x6 (10)
110128 Screw allen roundhead M3x5 (10)
110135 Screw allen countersunk M2,5x10 (10)
110136 Screw allen countersunk M2,5x8 (10)
411153 Screw allen countersunk M2.2x6mm (10)
411154 Screw allen countersunk M3x5mm (10)
110122 Screw allen countersunk M3x6 (10)
110104 Screw allen countersunk M3x8 (10)
110100 Screw allen countersunk M3x10 (10)
110127 Screw allen countersunk M3x12 (10)
411159 Screw allen countersunk M3x15mm (10)
110125 Screw allen countersunk M3x20 (10)
411164 Screw allen cilinderhead M2.2x12mm (10)
411161 Roll Pin 1.5x10mm (10)
411162 C-clip 2mm (10)
411163 C-clip 3mm (10)
411165 Snapring 7mm (10)

OPTIONALS

411036 Upper Arm Mount 6 L+R
411037 Upper Arm Mount 3 L+R
411102 Monoshock shaft, Titanium-nitride
411103 Shock shaft, Titanium-nitride
411105 Hinge Pin Titanium
411034 Distance plate for lower arm 1.0mm
411035 Distance plate for lower arm 2.0mm
411208 Side spring 4,5lbs S120L (2)
411209 Side spring 5,0lbs S120L (2)
411211 Side spring 6,0lbs S120L (2)
411212 Side spring 6,5lbs S120L (2)
411213 Side spring 7,0lbs S120L (2)
411214 Center spring 12lbs S120L
411216 Center spring 16lbs S120L
411217 Center spring 18lbs S120L
411219 Front spring 18 lbs S120L (2)
411220 Front spring 26 lbs S120L (2)
411223 Transponder riser S120L (3)
411224 Rear axle shim 0,25 (10)

TOOLS

1468 Car-stand alu Serpent orange
150001 Tool bag Serpent

MERCHANDISING

1865 Lanyard serpent grey-silver
1868 Pit-towel serpent orange 50x70cm
1869 Pit-towel serpent orange 140x60cm
1872 Rucksack serpent (35x45cm) black
1873 Rucksack serpent (48x61cm) black
1886 Decal serpent black/white 1/10 (2)
1888 Decalsheet chrome 1/10 (2)
1998 Cap serpent black-orange
190100 T-shirt serpent black (s)
190101 T-shirt serpent black (m)
190102 T-shirt serpent black (l)
190103 T-shirt serpent black (xl)
190104 T-shirt serpent black (xxl)
190110 Sweater serpent black (s)
190111 Sweater serpent black (m)
190112 Sweater serpent black (l)
190113 Sweater serpent black (xl)
190114 Sweater serpent black (xxl)
1890 Serpent large promo decal 40x25
1891 Serpent medium promo decal 20x12,5 (2)
411245 Decal sheets S100 (2)
411246 Decal sheets S100 chrome (2)



SERPENT

www.serpent.com
info@serpent.com

411244 MANUAL S-100