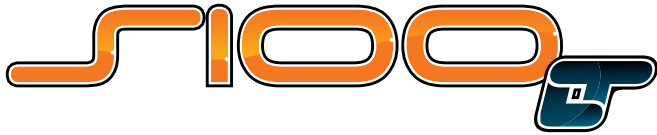




INSTRUCTION MANUAL
& REFERENCE GUIDE



INTRODUCTION

Serpent created a highly competitive electric 1/10th scale pan car 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, which combines with the alu tubes and a central shock absorber, to control the movement and grip of the rear end. With 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.

Read this first and Safety

Read the following section carefully before to proceed.

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/410051** 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.

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REFERENCE GUIDE	33
PARTS LIST	38

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.

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.

Instructions, how to use

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.

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 LT. Fine-tuning the initial setup is an essential part of building a high-performance racecar like your S100LT.

Exploded views and partslist

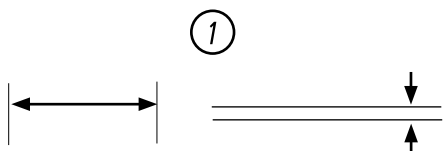
The exploded views and parts lists for the Serpent S100 LT are presented in the Reference Guide section in the back of this manual.

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.

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.

USING THE MANUAL



Apply transmission grease



Threadlock*

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

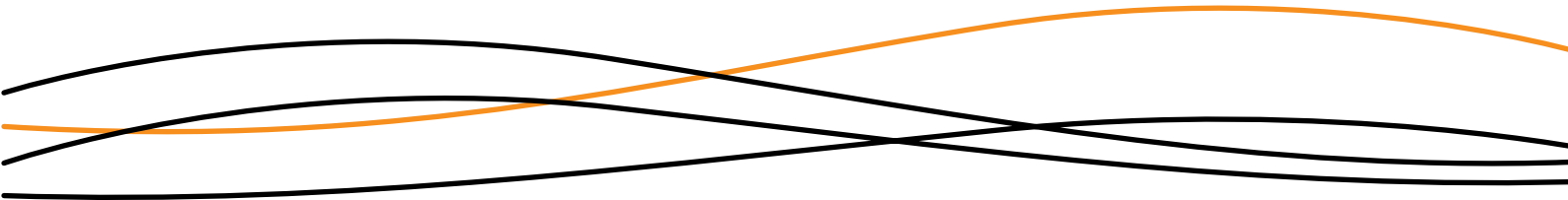


CA glue*



Differential grease (*Items not included.)

ASSEMBLY INSTRUCTIONS

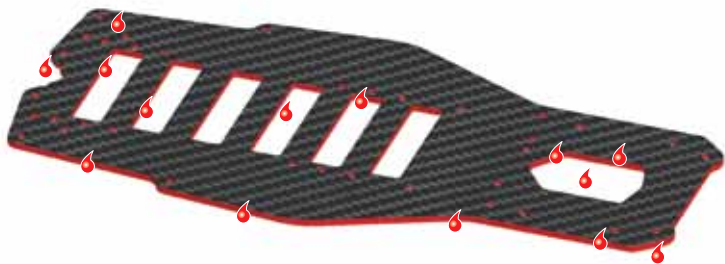


A

1

KIT

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.



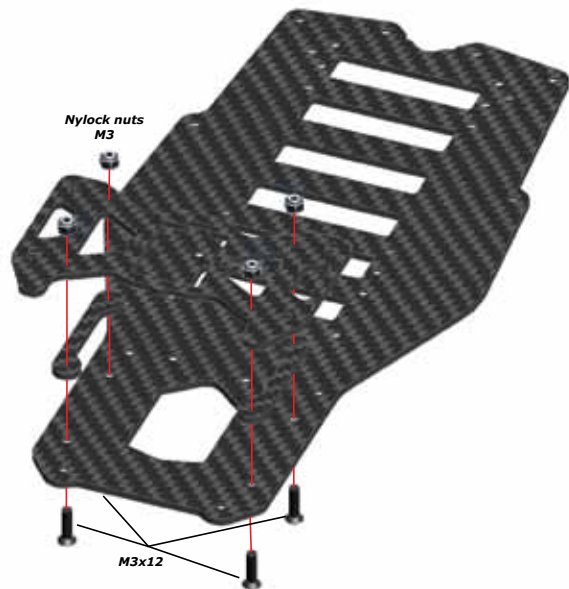
 CA Glue

A

2

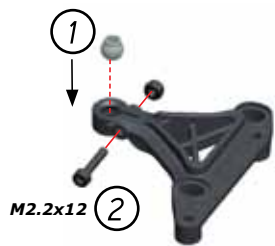
Bag

1

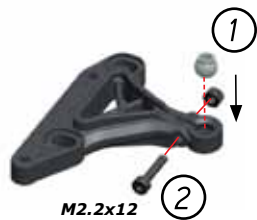


A

3

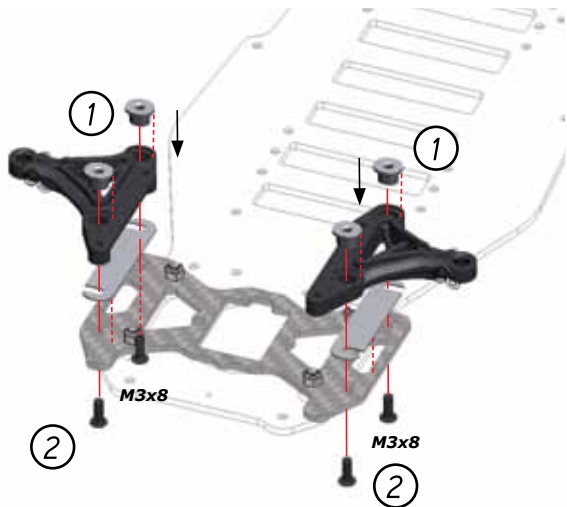


M2.2x12



M2.2x12

4



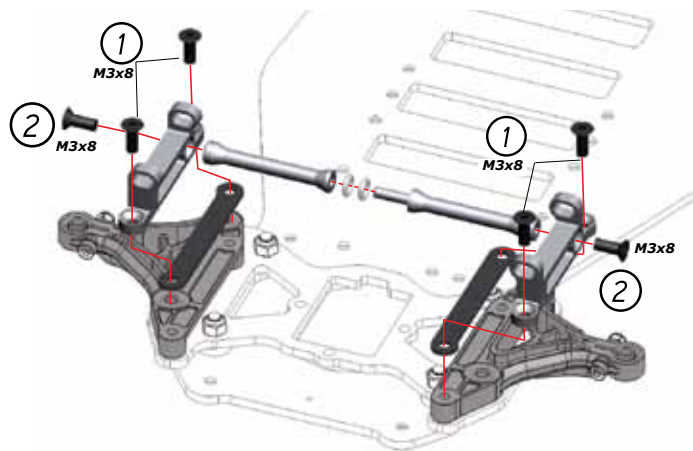
M3x8

M3x8

5

Bag

2

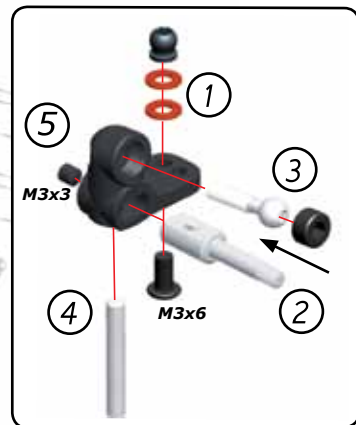
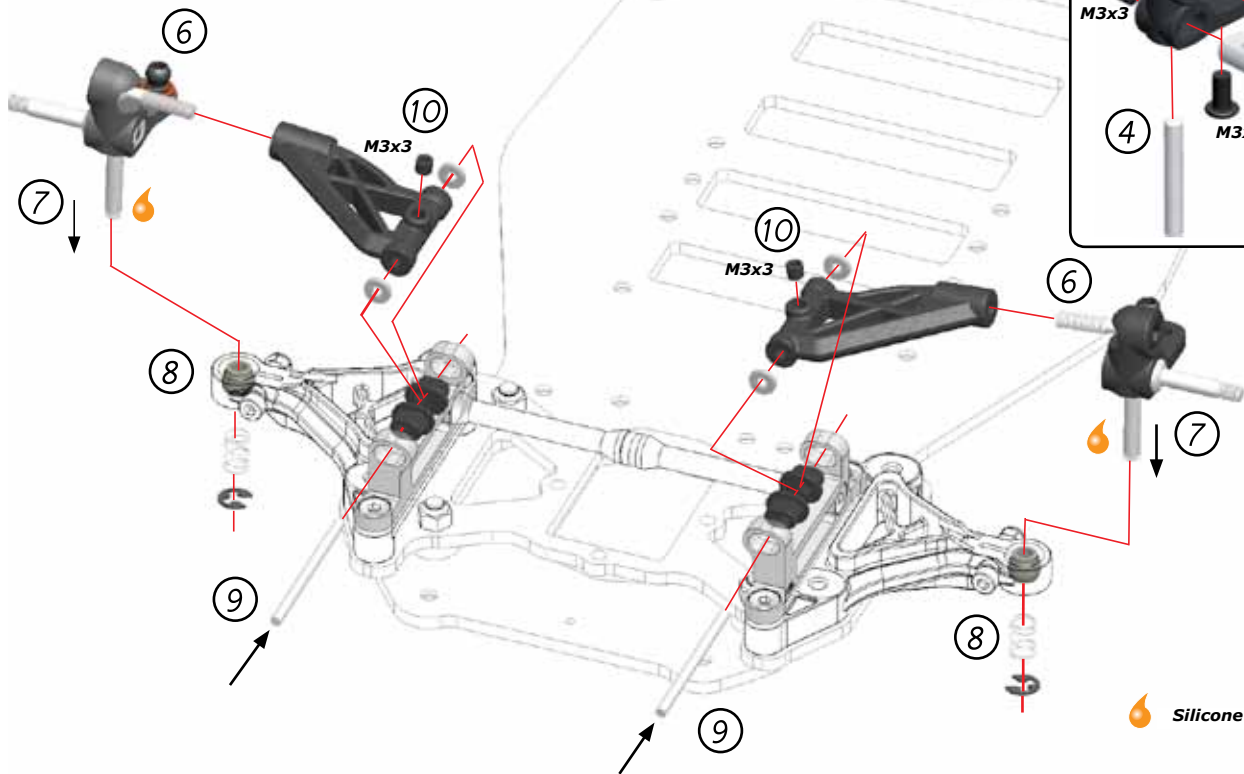


M3x8

M3x8

M3x8

M3x8



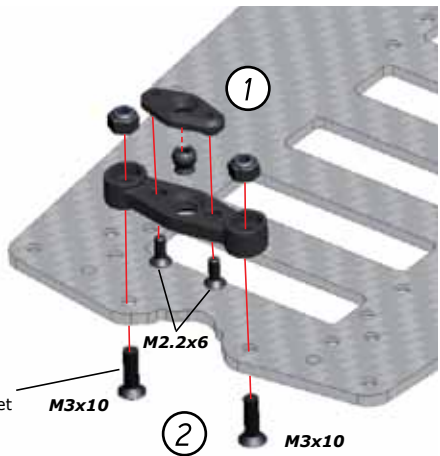
 **Silicone Grease**

A

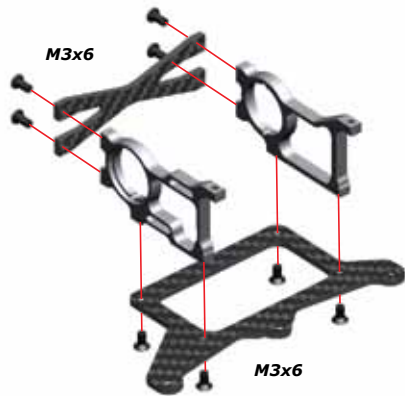
7

Bag

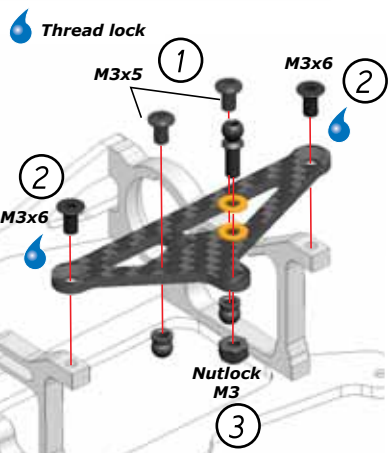
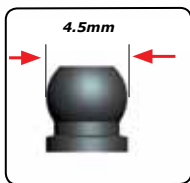
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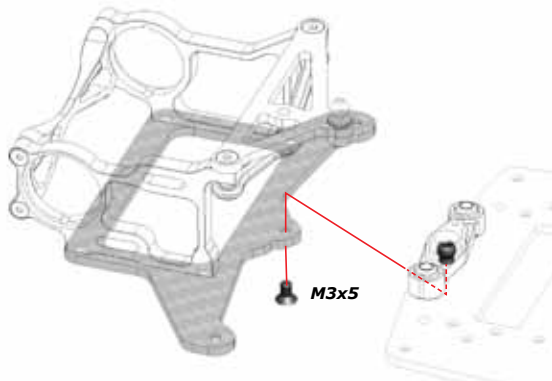
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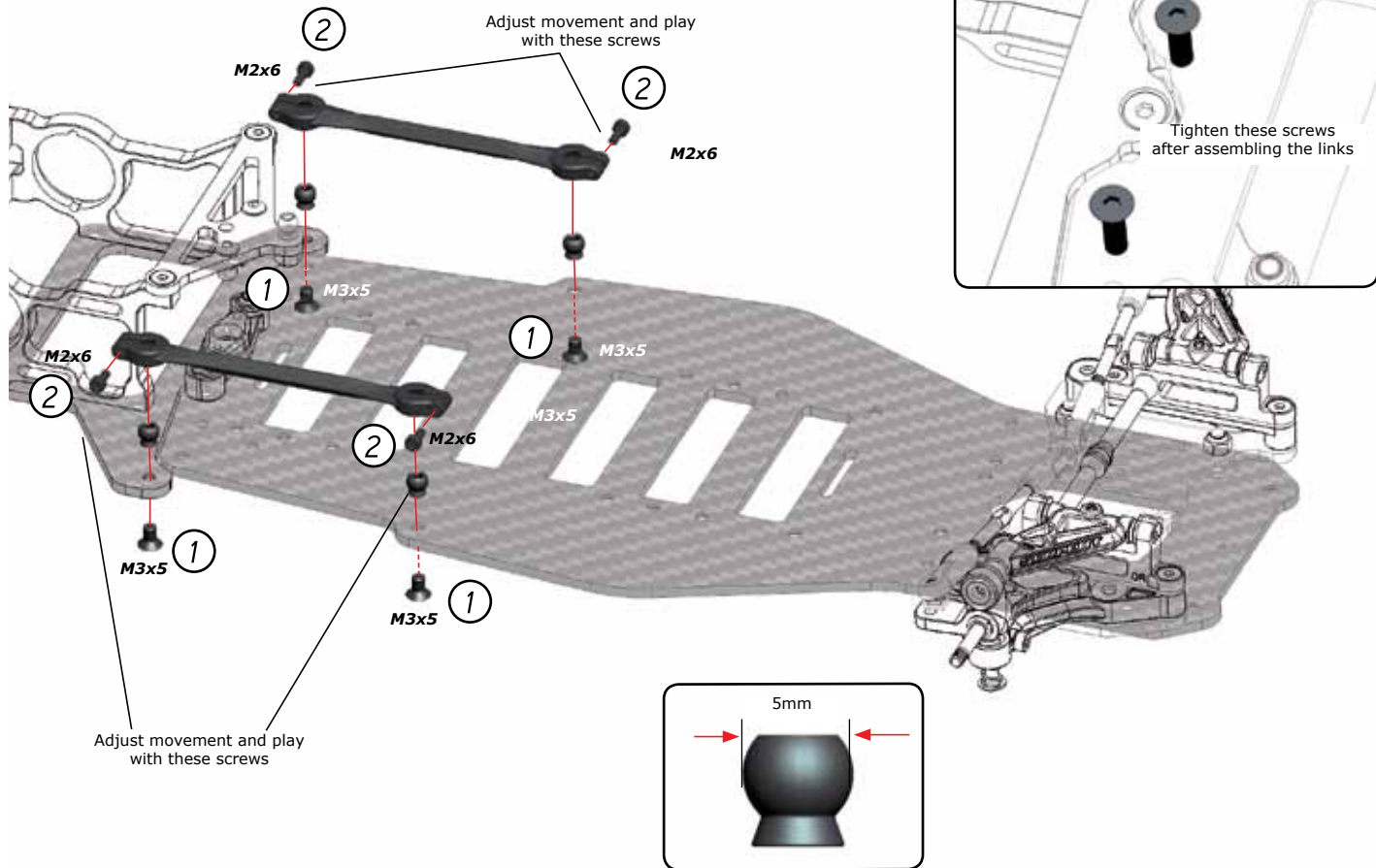


9



10



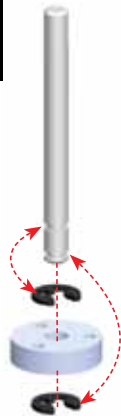


SHOCK ASSEMBLY

A



B



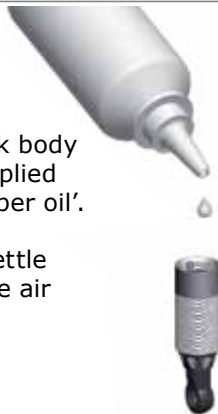
C



D



E

**Filling:**

'fill the shock body with the supplied shock absorber oil'.

Bleeding:

'let the oil settle and allow the air to escape'

F

'close the shock slowly.

Important:

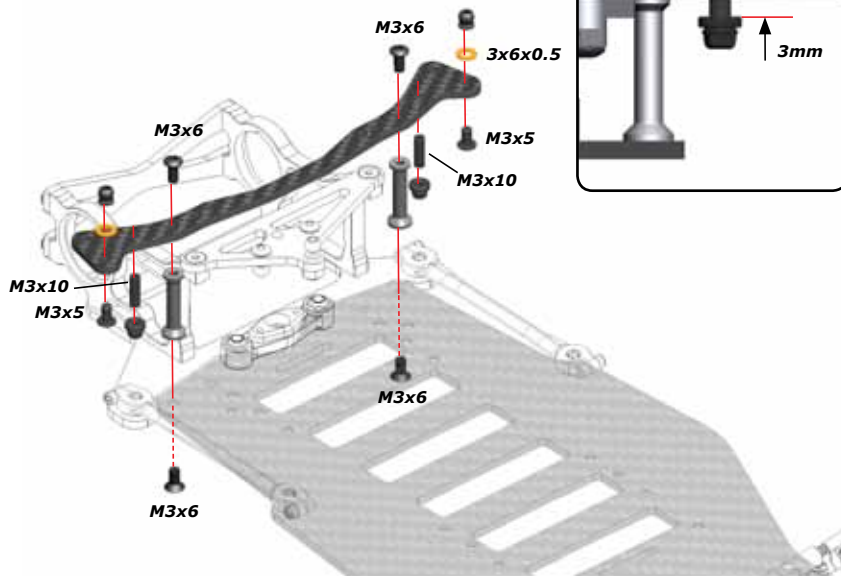
do not cross thread! Oil will overflow through the built-in bleed channel.

Tighten carefully until the bottom half sits against the shock body'

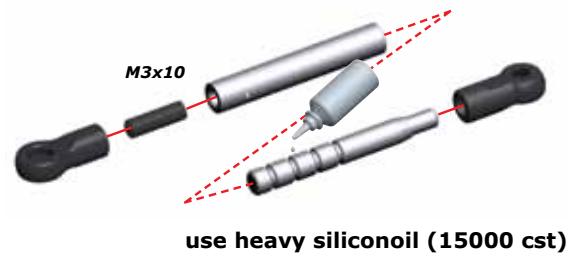


G

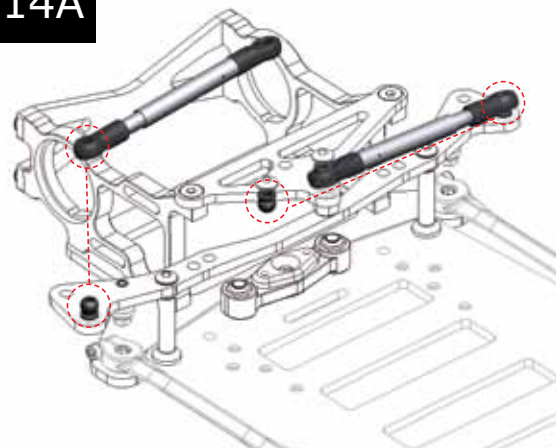


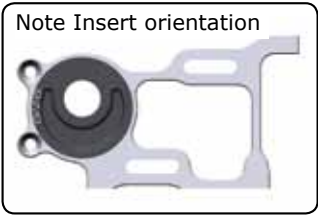
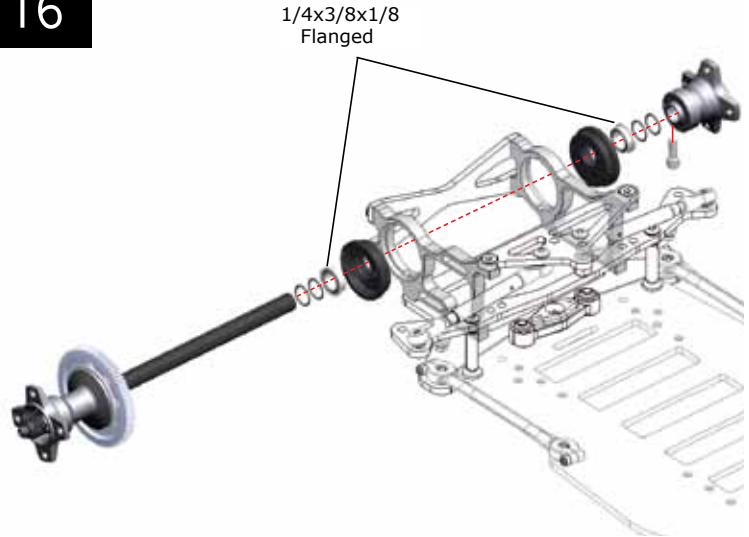
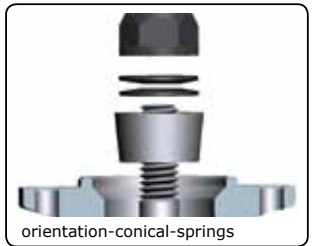
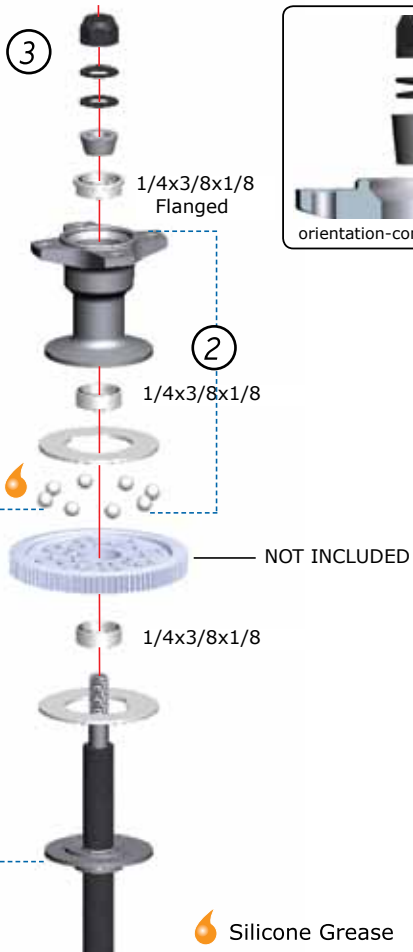


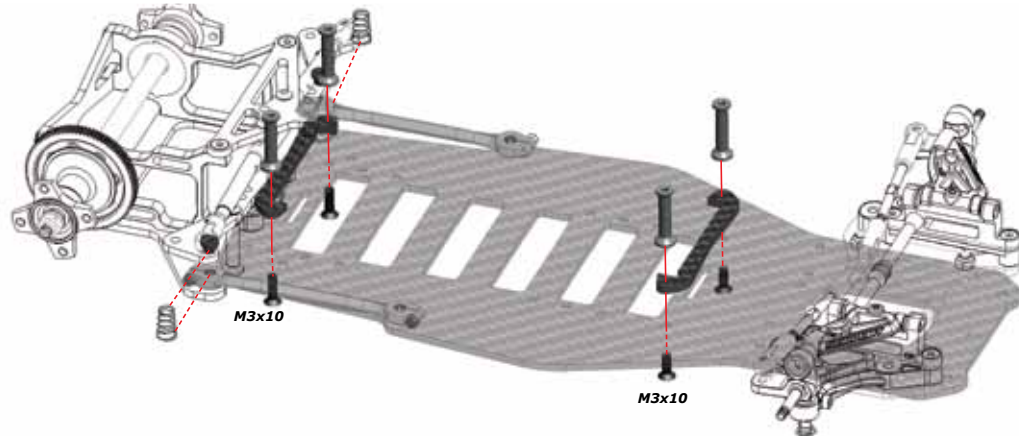
14

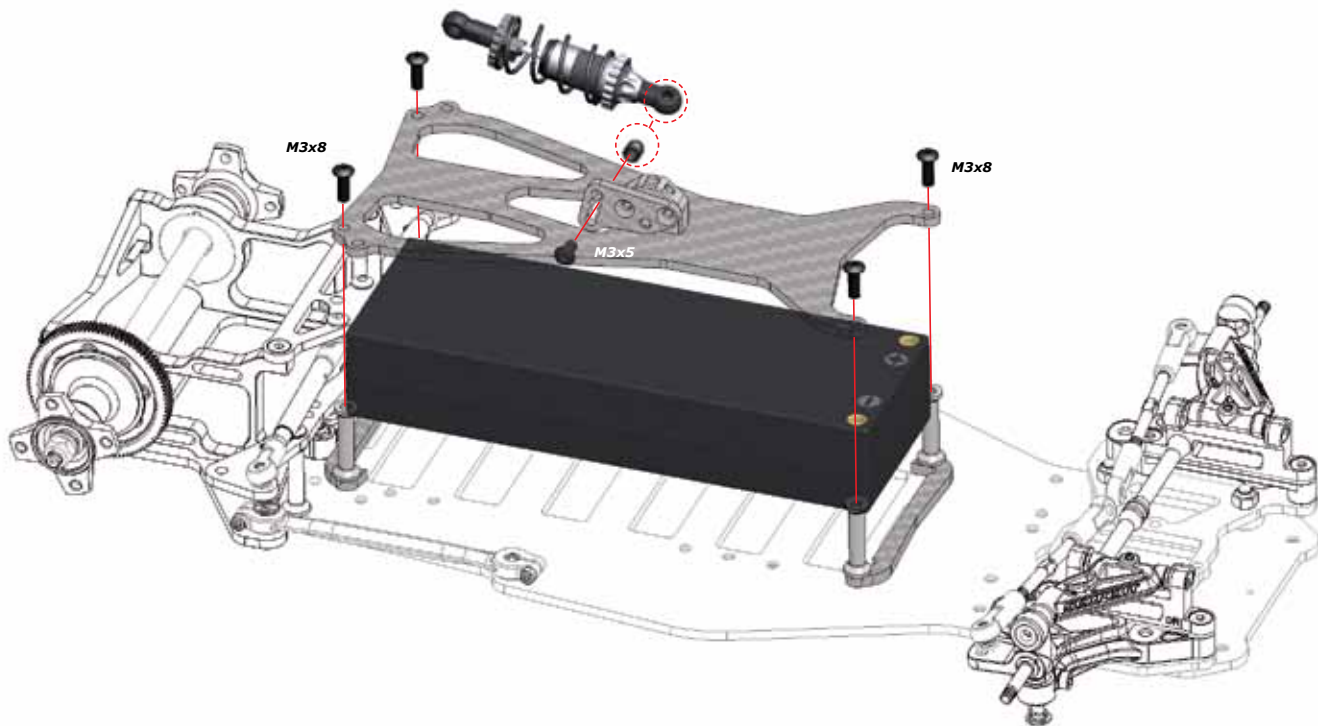


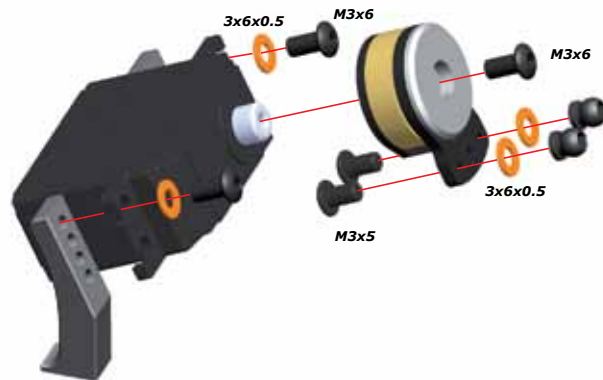
14A





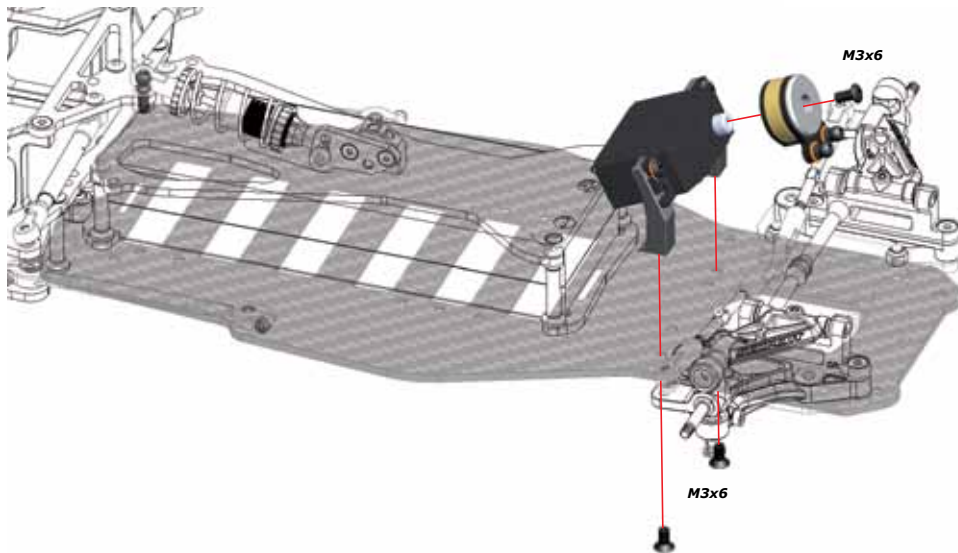


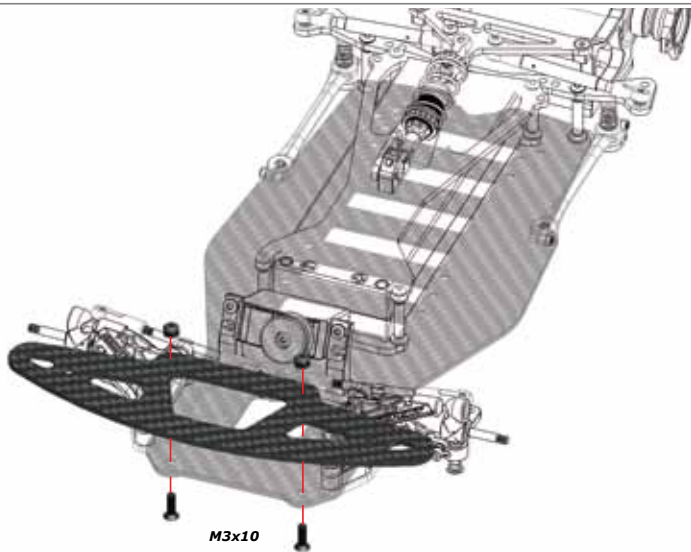
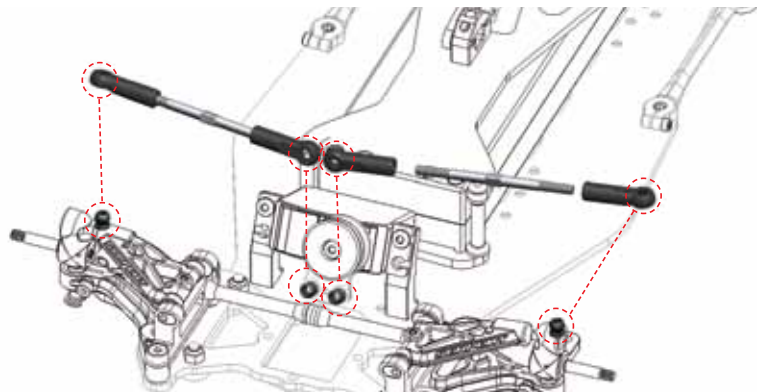


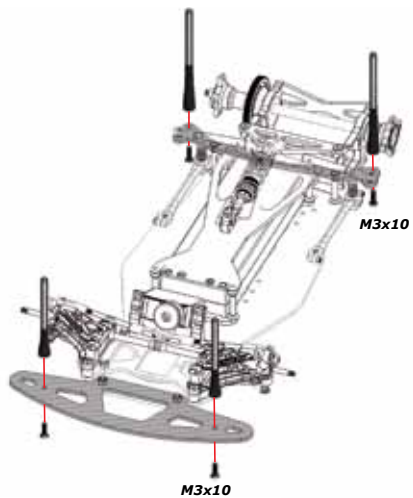


Use the following servo saver insert with these brands of servos.

- 23 - Sanwa / KO / JR
- 24 - Hitec
- 25 - Default Futaba/Savox/Dragon RC



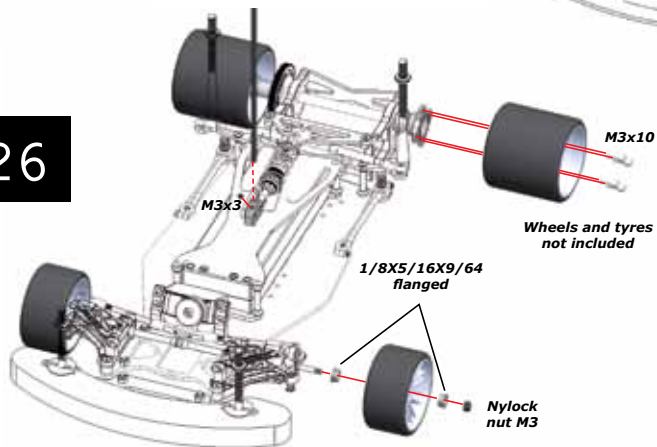




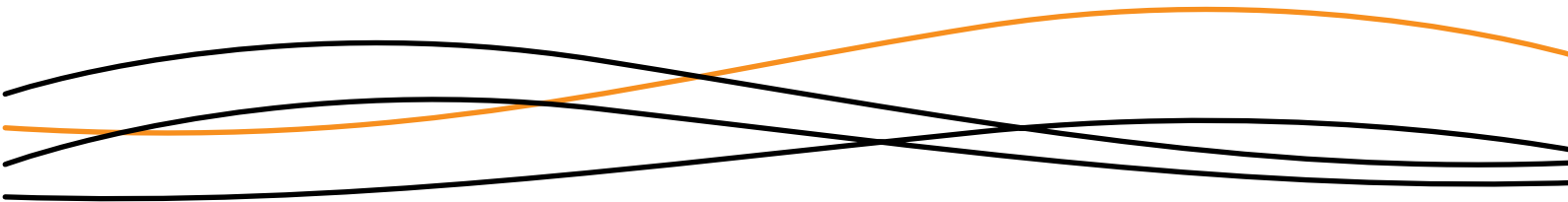
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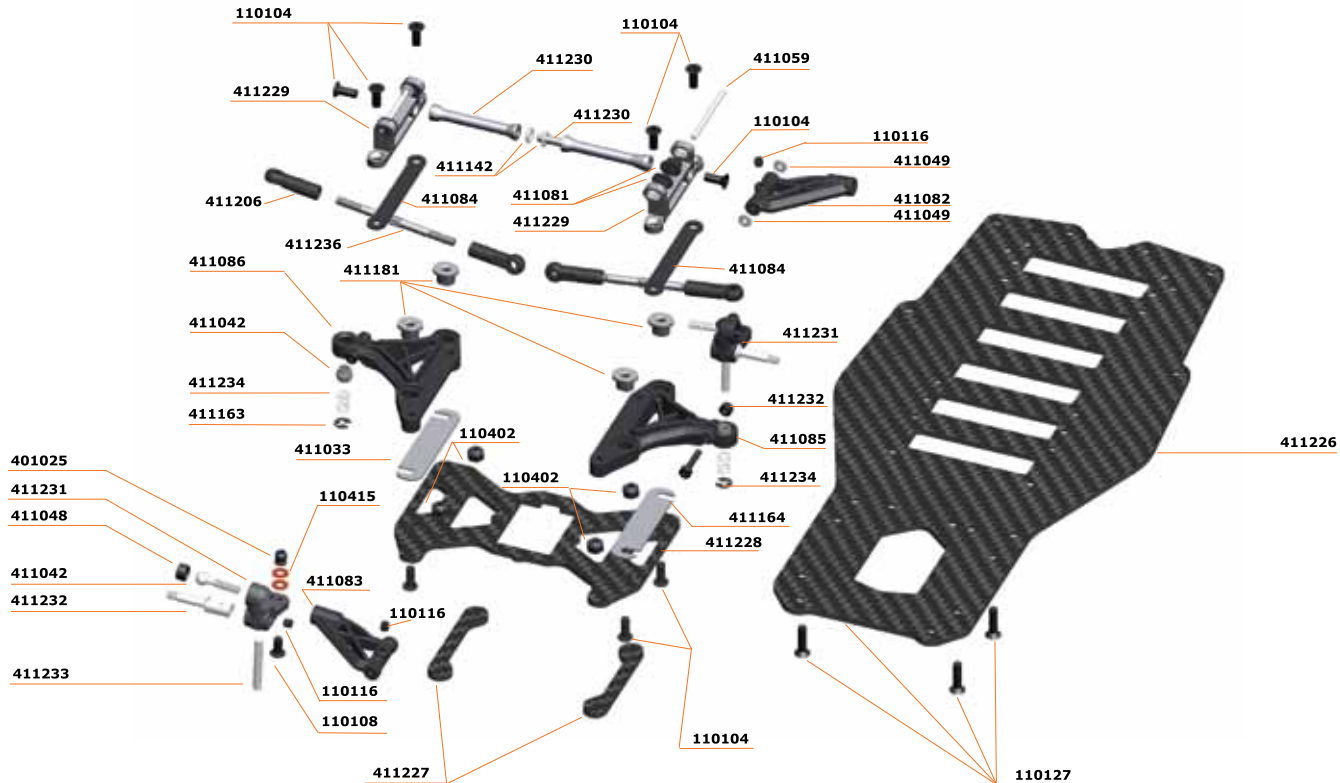


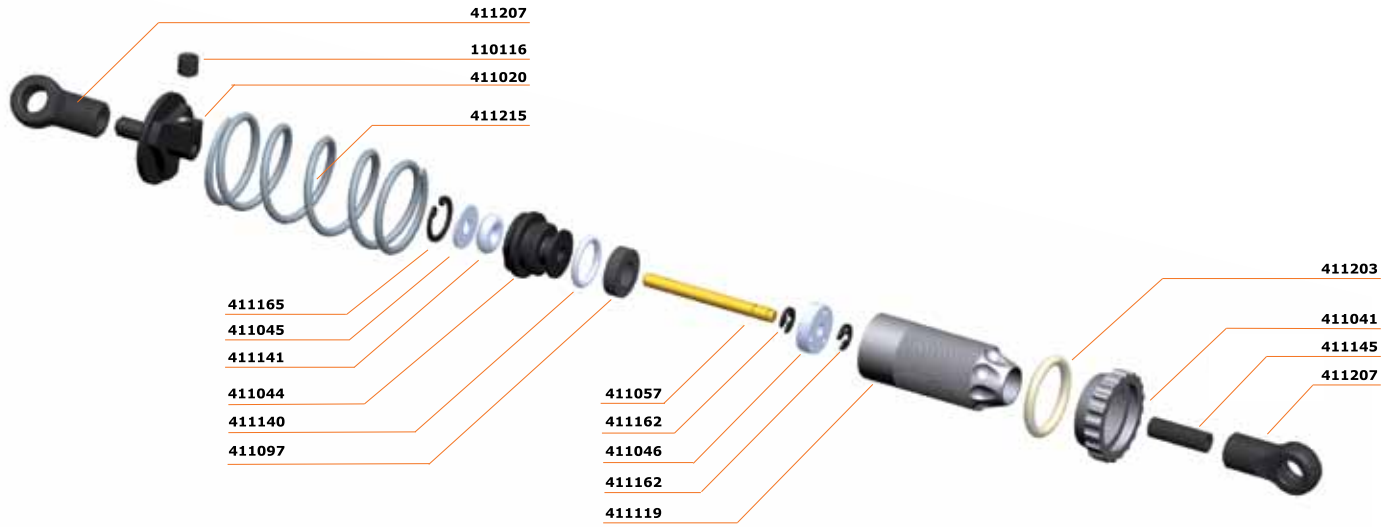
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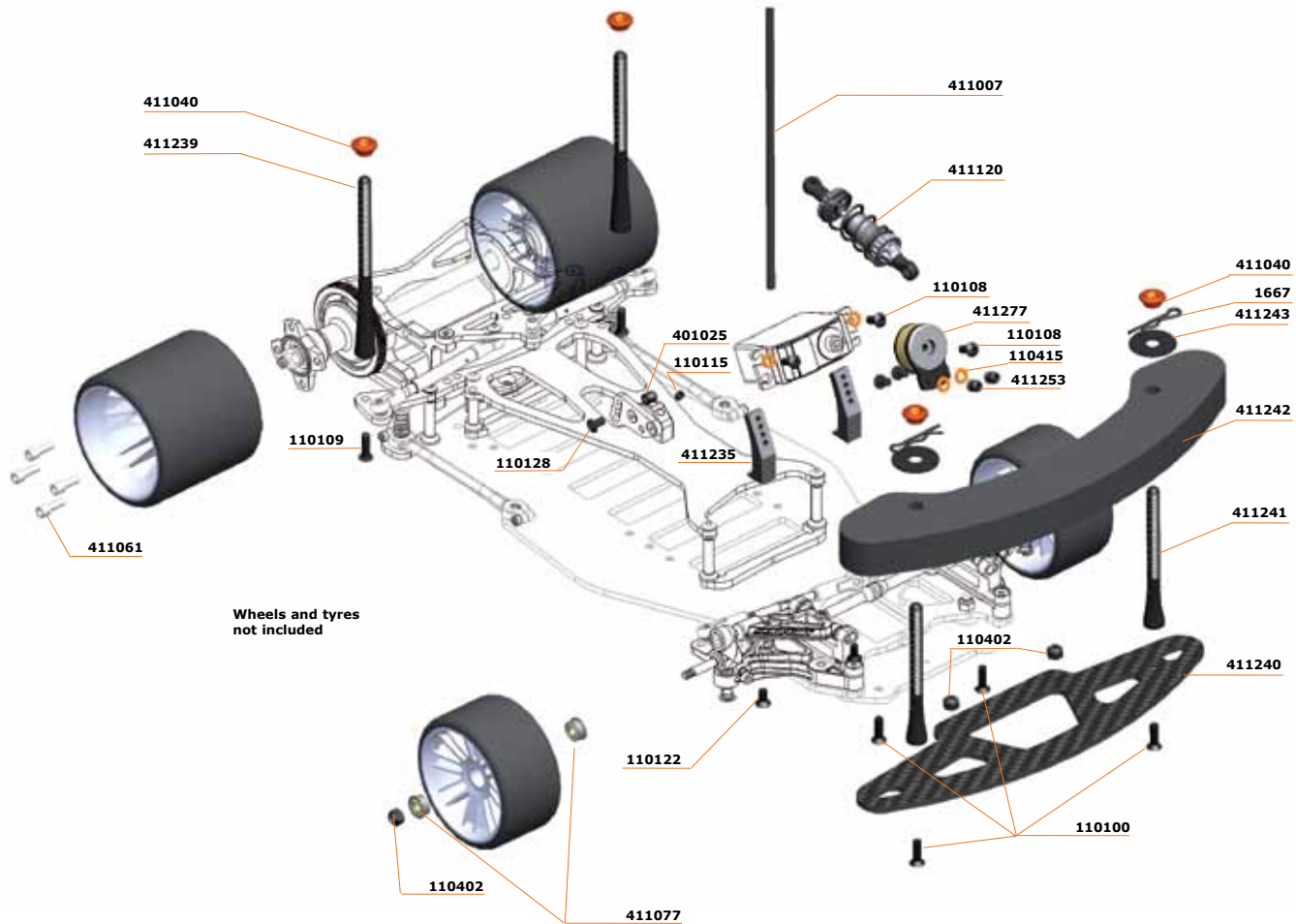


REFERENCE GUIDE









SERPENT S100 LT KIT ART No. 410051**MANUAL / DECALS**

- 411244 S100 Manual full color
- 411245 Decal sheets S100 (2)
- 411246 Decal sheets S100 chrome (2)

FRONT SUSPENSION

- 401025 Pivot ball uni 4.5mm
- 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)
- 411218 Front spring 22lbs S120L (2)
- 411227 Suspension spacer front S100 (2)
- 411228 Suspension plate front S100
- 411229 Suspension mount front 0deg L+R
- 411230 Cross brace L+R S100
- 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)
- 411254 Bumper foam S120

Optional

- 411026 Upper Arm Mount 9 L+R
- 411034 Distance Plate for Lower Arm 1.0mm
- 411035 Distance Plate for Lower Arm 2.0mm
- 411036 Upper Arm Mount 6 L+R
- 411037 Upper Arm Mount 3 L+R
- 411105 Hinge Pin Titanium

- 411106 Kingpin Titanium
- 411219 Front spring S120L 22 lbs (2)
- 411220 Front spring S120L 26 lbs (2)
- 411223 Transponder riser S120L (3)

CENTRAL ASSEMBLY

- 401025 Pivot ball uni 4.5mm
- 411007 Antenna
- 411023 Steering Rod
- 411024 Bumpsteer-shim 3x6x0.5 (10)
- 411067 Battery Insert
- 411192 Side-link S120L (2)
- 411197 Center shock mount alu
- 411199 Pivot ball S120L (5)
- 411200 Pod pivot support S120L
- 411201 Standoff alu S120L (2)
- 411202 Spring retainer S120L (4)
- 411206 Balljoint 4.5 (4)
- 411226 Chassisplate S100 carbon
- 411235 Servo mount S100 (3)
- 411236 Steering rod 48mm S100 (2)
- 411236 Steering rod 48mm S100 (2)
- 411247 Top-deck, carbon, S100
- 411248 Batterybracket S 100 (2)
- 411249 Schockbracket lower carbon S 100
- 411256 Cross brace S120L V2
- 411259 Tube set S120L

Optional

- 411208 Side spring 4.5lbs S120L (2)
- 411209 Side spring 5.0lbs S120L (2)
- 411210 Side spring 5.5lbs S120L (2)
- 411211 Side spring 6.0lbs S120L (2)
- 411212 Side spring 6.5lbs S120L (2)
- 411213 Side spring 7.0lbs S120L (2)

REAR ASSEMBLY

- 401025 Pivot ball uni 4.5mm
- 411061 M3x8mm Socket Screw "special-head"
- 411072 Bearing Adapter set (9x2)
- 411187 Pivotball with shaft (2)
- 411188 Pivotball shim (2)
- 411193 Top plate carbon S120L

- 411238 Clamp Hub left S100
- 411272 S120 LTX Power pod plate
- 411274 S120 LTX Link top plate
- 411279 Motor pod backplate carbon S120LTX V2
- 411280 Motor pod left alu S120LTX V2
- 411281 Motor pod right alu S120LTX V2
- Optional**
- 411224 Rear axle shim 0.25 (10)

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
- 411186 Diff washer S120L (2)
- 411237 Diffhub S100
- 411251 Rear axle cone + nut
- 411252 Differential-set S100
- 411262 Rear axle S100/120 alu
- Optional**
- 411250 Rear axle S100/120 IRS

SHOCK ABSORBERS

- 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
- 411057 Shock shaft
- 411097 Foam Insert for Shock
- 411120 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)
- 411249 Shockbracket lower carbon S100

Optional

411103 Shock shaft Tin treated
 411214 Center spring 12lbs S120L
 411216 Center spring 16lbs S120L
 411217 Center spring 18lbs S120L
 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 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

Hardware

110100 Screw allen countersunk m3x10 (10)
 110101 Screw allen countersunk m4x8 (10)
 110102 Screw allen countersunk m4x10 (10)
 110103 Screw allen countersunk m4x16 (10)
 110104 Screw allen countersunk M3x8 (10)
 110105 Screw allen countersunk m4x12 (10)
 110106 Screw allen flanged roundhead m5x12 (10)
 110107 Screw allen cilinderhead m3x16 (10)
 110108 Screw allen roundhead m3x6 (10)
 110109 Screw allen roundhead m3x10 (10)
 110110 Screw allen roundhead m3x16 (10)
 110111 Screw allen roundhead m3x14 (10)
 110112 Screw allen roundhead m3x12 (10)
 110113 Screw allen roundhead m4x8 (10)
 110114 Setscrew allen m3x8 (10)
 110115 Setscrew allen m3x4 (10)
 110116 Setscrew allen m3x3 (10)
 110117 Setscrew allen m3x12 (10)
 110118 Setscrew allen m4x4 (10)
 110119 Setscrew allen m4x6 (10)

110120 Setscrew allen m4x10 (10)
 110121 Setscrew allen m5x6 (10)
 110122 Screw allen countersunk m3x6 (10)
 110123 Screw philips roundhead 3.5x13 (10)
 110124 Screw allen countersunk m3x8 (10)
 110125 Screw allen countersunk m3x20 (10)
 110126 Screw allen countersunk m2.5x12 (10)
 110127 Screw allen countersunk m3x12 (10)
 110128 Screw allen roundhead m3x5 (10)
 110129 Screw allen cilinderhead m3x10 (10)
 110130 Screw allen roundhead m2.5x6 (10)
 110131 Screw allen roundhead m2.5x10 (10)
 110132 Screw allen countersunk m3x16 (10)
 110133 Screw philipshead countersunk
 2.5x8 wide (10)
 110134 Screw philipshead countersunk
 2.5x10 wide (10)
 110135 Screw allen countersunk M2.5x10 (10)
 110136 Screw allen countersunk M2.5x8 (10)
 110137 Setscrew allen M3x6 (10)
 110138 Screw allen countersunk M4x14 (10)
 110139 Screw allen countersunk M3x40 (10)
 110140 Screw allen roundhead M3x20 (10)
 110141 Screw allen roundhead M3x22 (10)
 110142 Screw allen roundhead M3x25 (10)
 110143 Screw allen roundhead M4x18 (10)
 110144 Screw allen roundhead M3x18 (10)
 110145 Screw allen roundhead flanged
 M3x12 (10)
 110146 Screw allen roundhead flanged
 M3x16 (10)
 110147 Screw ph roundhead widethread
 2.5x5 (10)
 110148 Setscrew allen M5x4 (10)
 110149 Screw allen countersink M2x10 (10)
 110150 Screw M6x12 nylon black (2)
 110151 Screw allen cilinderhead M4x10 (10)
 110152 Screw allen cilinderhead M3x8 (10)
 110153 Screw allen roundhead M2.3x6 (10)
 110154 Setscrew allen M3x10 (10)
 110155 Setscrew allen M3x5 (10)
 110156 Screw allen countersunk M2.2x6 (10)

110157 Screw allen countersunk M3x5 (10)
 110158 Screw allen countersunk M3x15 (10)
 110159 Screw allen countersunk M3x18 (10)
 110160 Screw allen cilinderhead M2.2x12 (10)
 110161 Screw allen cilinderhead M2x6 (10)
 110162 Setscrew allen M3x2.5 (10)
 110163 Setscrew allen M3x2 (10)
 110164 Screw allen roundhead M3x4 (10)
 110165 Screw allen cilinderhead M2x5 (10)
 110166 Screw allen countersunk M2.5x5 (10)
 110167 Screw allen roundhead flanged M3x18 (10)
 110168 Screw allen roundhead flanged M3.5x10 (10)
 110169 Screw allen roundhead flanged M4x10 (10)
 110170 Screw allen roundhead flanged M3x28 (10)
 110171 Screw ph countersunk widethread 2.5x15 (10)
 110172 Screw allen roundhead flanged M3X6 (10)
 110173 Screw ph countersunk widethread 2.5x12 (10)
 110174 Screw allen countersunk M4x6 (10)
 110175 Screw allen cilinderhead M3x40 (10)
 110176 Screw allen cilinderhead M3x18 (10)
 110176 Screw allen cilinderhead M3x18 (10)
 110177 Screw allen roundhead M4x12 (10)
 110178 Screw allen cilinderhead M3x14 (10)
 110179 Screw allen roundhead M2.5x8 (10)
 110180 Setscrew allen M5x10 (10)
 110181 Screw M5x10 + Nut nylon black (4+4)
 110201 Pin 3x12 (10)
 110202 Pin 5x5 (10)
 110203 Pin 3x14 (10)
 110204 Pin 3x20 (10)
 110205 Pin 3x22 (10)
 110206 Pin 2.5x22 (10)
 110207 Pin 2.5x12 (10)
 110208 Pin nra 2x9.8 (4)
 110209 Pin nra 2x18 (4)
 110210 Pin 3x13 (10)
 110211 Pin 2.5x13 (10)
 110212 Pin 2.5x17 (10)
 110213 Pin 2.5x10 (10)
 110214 Pin 3x15 (10)
 110215 Pin 2x12 (10)
 110216 Pin 2.5x15 (10)

110217 Pin 2x9 (10)
110218 Pin 3x10 (10)
110219 Pin 2x14 (10)
110300 E-clip 2.3 (10)
110301 E-clip 3.2 (10)
110302 E-clip 4.0 (10)
110303 E-clip 5.0 (10)
110304 E-clip 7.0 (10)
110305 Seger clip 12x1.0 (10)
110306 E-clip 6.0 (10)
110307 E-clip 9.0 (10)
110400 Shim 6.0x10x0.2 (10)
110401 Shim 3.2x7x0.5 (10)
110402 Nut nylock M3 (10)
110403 Nut nylock M4 (10)
110404 Shim 6x8x0.3 (10)
110405 Nut nylock M4 flanged (10)
110406 Nut nylock M2.2 (10)
110407 Nut M3 (10)
110408 Shim 3x5x0.3 (10)
110409 Shim 3x5x1 (10)
110410 Shim 3x5x2 (10)
110411 Shim 3x5x4 (10)
110412 Shim 3.5x8x1 (10)
110413 Shim 3.5x12x0.2 (10)
110414 Shim 3x6x0.1 (10)
110415 Shim 3x6x0.5 (10)
110416 Shim 3x6x0.8 (10)
110417 Shim 3x6x3 (10)
110418 Shim 4x8x0.1 (10)
110419 Shim 4x9.5x1 (10)
110420 Shim 4x9.5x2(10)
110421 Shim 4x9.5x4(10)
110422 Shim 4x10x0.3 (10)
110423 Shim 5x8x0.1 (10)
110424 Shim 5x8x0.3 (10)
110425 Shim 5x10x0.3 (10)
110426 Shim 5x10x0.5 (10)
110427 Shim 5x15x0.3 (10)
110428 Shim 6.5x8x0.25 (10)
110429 Shim 6x11.75x0.2 (10)
110430 Shim 6x12x0.5 (10)

110431 Shim 8x11x0.1 (10)
110432 Shim 8x11x0.2 (10)
110433 Shim 12x15x0.25 (10)
110434 Shim 12x18x0.3 (10)
110435 Shim 13x16x0.2 (10)
110436 Shim 3x5x3 (10)
110437 Nut M2.5 (10)
110438 Shim 2.5x6x0.5 (10)
110439 Shim 3x7.5x1 (10)
110440 Shim 2.5x5x0.4 (10)
110441 Nut nylock M3 flanged (10)
110442 Shim 4x8x0.6 (10)
110443 Shim 5x15x0.2 (10)
110444 Nut M4 nylon (10)
110445 Shim 4x10x0.2 (10)

Merchandising

1897 Towel Serpent large
1898 Lanyard Serpent orange
1900 Cap flat-brim Serpent black
1998 Cap serpent black-orange
190121 T-shirt Serpent LTS white (S)
190122 T-shirt Serpent LTS white (M)
190123 T-shirt Serpent LTS white (L)
190124 T-shirt Serpent LTS white (XL)
190125 T-shirt Serpent LTS white (XXL)
190127 T-shirt Serpent DTR orange (S)
190128 T-shirt Serpent DTR orange (M)
190129 T-shirt Serpent DTR orange (L)
190130 T-shirt Serpent DTR orange (XL)
190131 T-shirt Serpent DTR orange (XXL)
190132 T-shirt Serpent DTR black (S)
190133 T-shirt Serpent DTR black (M)
190134 T-shirt Serpent DTR black (L)
190135 T-shirt Serpent DTR black (XL)
190136 T-shirt Serpent DTR black (XXL)
190167 T-shirt Serpent LTS black (S)
190168 T-shirt Serpent LTS black (M)
190169 T-shirt Serpent LTS black (L)
190170 T-shirt Serpent LTS black (XL)
190171 T-shirt Serpent LTS black (XXL)
190177 T-shirt Serpent LTS orange (S)

190178 T-shirt Serpent LTS orange (M)
190179 T-shirt Serpent LTS orange (L)
190180 T-shirt Serpent LTS orange (XL)
190181 T-shirt Serpent LTS orange (XXL)
190156 Polo shirt Serpent black-orange (S)
190157 Polo shirt Serpent black-orange (M)
190158 Polo shirt Serpent black-orange (L)
190159 Polo shirt Serpent black-orange (XL)
190160 Polo shirt Serpent black-orange (XXL)
190161 Polo shirt Serpent black-orange (XXXL)
190201 Hoody sweater Serpent black-zip (S)
190202 Hoody sweater Serpent black-zip (M)
190203 Hoody sweater Serpent black-zip (L)
190204 Hoody sweater Serpent black-zip (XL)
190205 Hoody sweater Serpent black-zip (2XL)
190206 Hoody sweater Serpent black-zip (3XL)
190207 Hoody sweater Serpent black-zip (4XL)
190172 Winter jacket Serpent (S)
190173 Winter jacket Serpent (M)
190174 Winter jacket Serpent (L)
190175 Winter jacket Serpent (XL)
190176 Winter jacket Serpent (XXL)
190208 Winter jacket Serpent (4XL)
190209 Speed-Jacket black softshell Serpent (S)
190210 Speed-Jacket black softshell Serpent (M)
190211 Speed-Jacket black softshell Serpent (L)
190212 Speed-Jacket black softshell Serpent (XL)
190213 Speed-Jacket black softshell Serpent (2XL)
190214 Speed-Jacket black softshell Serpent (3XL)

Pit equipment

190501 Tool-bag
190502 Pit-bag medium. 3 drawers

S100_{LT}



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