



INSTRUCTION MANUAL

& REFERENCE GUIDE



Welcome to Serpent

You are now part of the worldwide network of Serpent drivers, which gives you superior technical support and access to many benefits that only Serpent drivers can enjoy.

The Serpent Spyder offers state of the art specifications and leads the way in 1/10 buggy design, using all the knowledge we have gathered since 1980. Continuously pushing the performance envelope, Serpent's engineers have added many new and innovative features that can help take your Serpent Spyder into the winner's circle.

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. A default set-up sheet is added to have a good base set-up. 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.

This instruction manual has been divided into sections that will logically lead you through the assembly process of your Serpent Spyder. Follow the assembly steps in the order presented to ensure that no problems occur during assembly. Each step indicates all the fasteners and small

parts used. Bag numbers identify the kit bag(s) that contains the appropriate parts.

EXPLODED VIEWS AND PARTS LIST

In the back of this manual it is possible to find the exploded views for the Serpent Spyder. These exploded views show the standard parts of a particular assembly step along with the Serpent part number.

The parts list include the optionals, hardware and merchandising. It indicates the part number and name of each part for easy reference when ordering.

A full partslist in excel can be downloaded from the car-page on www.serpent.com.

Below you will find some information on safety; read those well before using the car. Also some info on how to use the manual best.

The worldwide network of Serpent drivers, dealers and distributors will help you to get the maximum out of your Serpent Spyder.

Join the free Serpent forum for support, use our social media like Twitter and Facebook to follow all info and meet other Serpent drivers, watch the Serpent Youtube channel for video's, the Serpent Teamblog for racereports around the globe and the Serpent website for all other info and news.

Enjoy racing!

Team Serpent

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 bagnumbers, 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 lateron in the assembly process.

SETUP

In many assembly steps you mount specific parts that suit the default set-up. We advice to keep the seperate default set-up sheet alongside the manual, during all assembly.

Other finetuning of the set-up, must be done at the track.

CONTENTS

FRONT DIFFERENTIAL ASSEMBLY	4
REAR DIFFERENTIAL ASSEMBLY	5
REAR TRANSMISSION ASSEMBLY	6
MID TRANSMISSION ASSEMBLY	7
REAR ASSEMBLY	11
FRONT ASSEMBLY	14
SHOCKS ASSEMBLY	19
FINAL ASSEMBLY	23
REFERENCE GUIDE	25
OPTIONALS AND MERCHANDISING	32

Read this first!

- Parental guidance is required when the and receiver are fully charged. builder/user of this car is under 16.
- Be sure to use the proper tools when necessary. Do not use water, methanol, assembling the car. Always exercise caution thinner or other solvents to clean the car. when using electric tools, knives and other sharp objects.
- Be careful when using liquids like lubrication receiver battery. oil, fuel or glue. Do not swallow.
- you experience irritation after using the product.
- Avoid using this car in wet conditions as the water will cause corrosion on the metal from any rotating parts such as wheels, gears and bearings and these parts will and transmission. Stay away from motor, engine cease to function properly. If driven in the and exhaust pipe system or speedo during and immediately after use, as these parts may be wet, ensure that all the electric equipment is waterproofed and after use, that all very hot. We advise to use protective hand moving parts are dried immediately. cloves. cloves.
- 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.

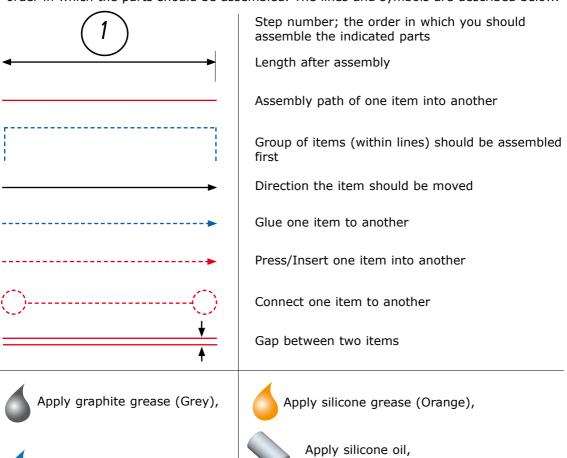
- This is a highly technical hobby product, Before operating this car, always check intended to be used in a safe racing environment. This car is capable of speeds in excess of 80 check that the transmitter and receiver km/h or 50mph. Please follow these guidelines when building and operating this model.

 Check that the batteries of the transmitter and receiver are fully charged.
- After use, always check all the mechanics Follow the building instructions. If in doubt, of the car. We advise to clean the car contact your dealer or importer.
 - Empty the fuel tank (depending on model) if needed and disconnect the
 - Store the car in a dry and heated place Follow the manufacturer's instruction in case to avoid corrosion of metal parts.

JSING THE MANUAL

Apply threadlock (Blue),

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



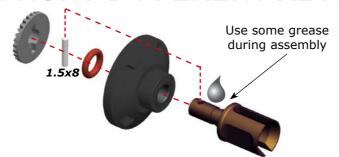
FRONT DIFFERENTIAL ASSEMBLY

BAG FRONT

DIFF

STEP

STEP 2



Use some grease during assembly

NOTE:

In step 5 & 6 to mount the pin, first put the pin in the purpose made slot as shown, and after slide it through the hole in the shaft.



STEP

3.1

NOTE:

1) The flange should be glued with CA to the diff gear.

2) The gear is NOT symmetrical. The side with the larger 4 holes must face upward in step 3.2.



3.2

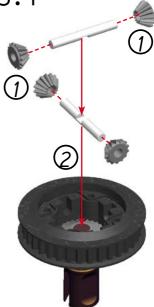
3.3



Add just enough oil to cover the large gear before assembling the small satellite gears and cross pins (step 3.3).



3.4



4.1 STEP

4

1) Assemble the o-ring before adding the oil.

2) Add oil so the cross pins are just covered (DO NOT overfill).



NOTE:

The diff assembled as shown here, should weigh max 19.15 grams with oil inside.



M2x10 4.2





REAR DIFFERENTIAL ASSEMBLY



Use some grease during assembly

NOTE:

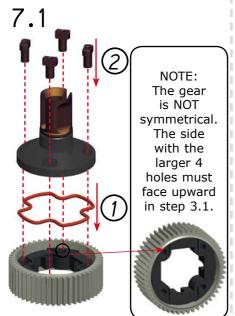
In step 5 & 6 to mount the pin, first put the pin in the purpose made slot as shown, and after slide it through the hole in the shaft.



STEP

BAG REAR

STEP 6



7.2

NOTE:

Add just enough oil to cover the large gear before assembling the small satellite gears and cross pins (step 7.3).

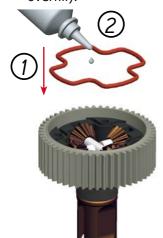


7.3 2

NOTE: 8.1

1) Assemble the o-ring before adding the oil.

2) Add oil so the cross pins are just covered (DO NOT overfill).



NOTE:

The diff assembled as shown here, should weigh max 19.0 grams with oil inside.



M2x10 8.2

Page 5

TEUDER S

DIFF

STEP

7

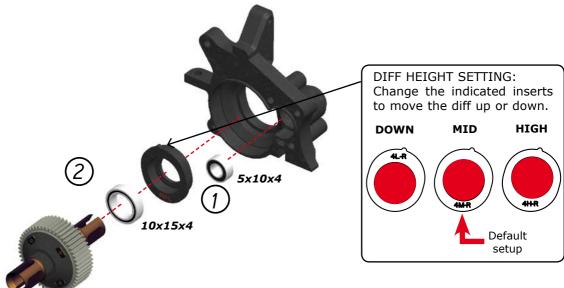
STEP

8

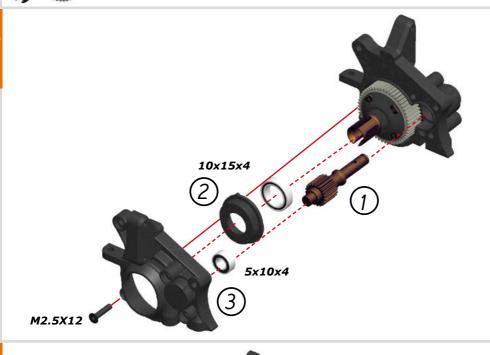
STEP

Bag 1

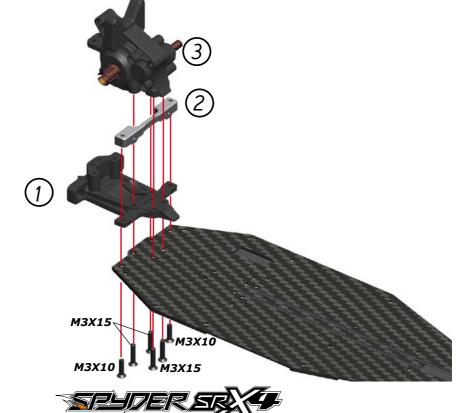
REAR TRANSMISSION ASSEMBLY



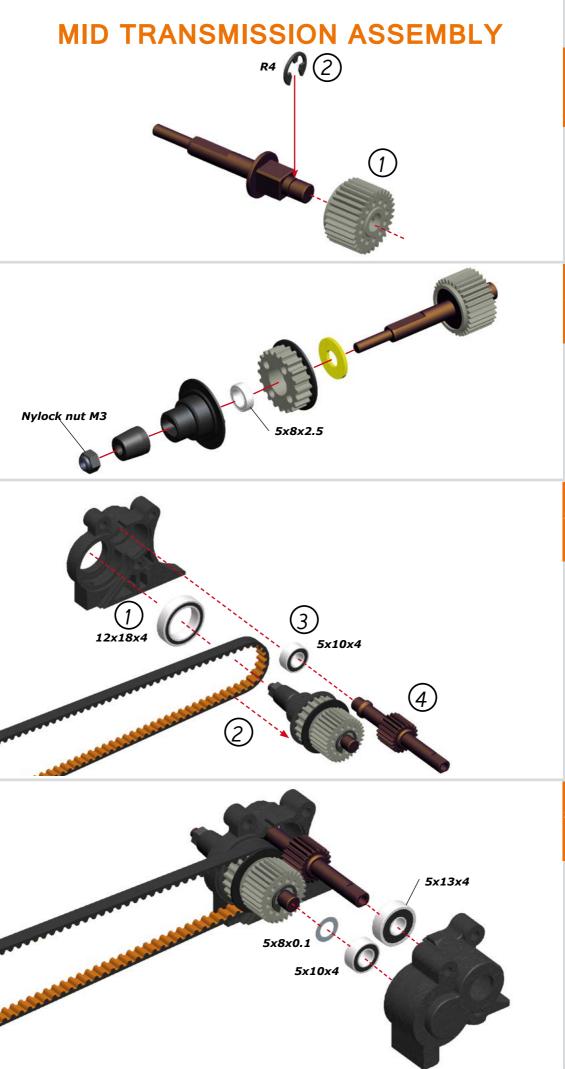
10



STEP







STEP 12

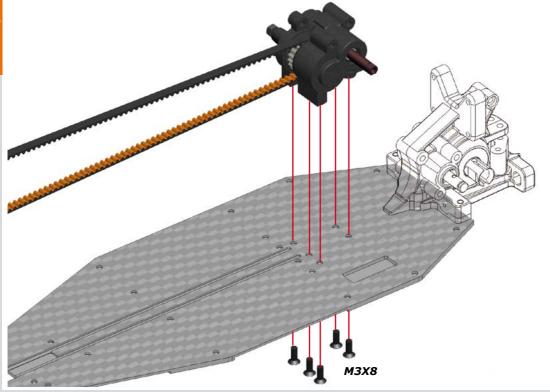
Bag 2

13

STEP **14**

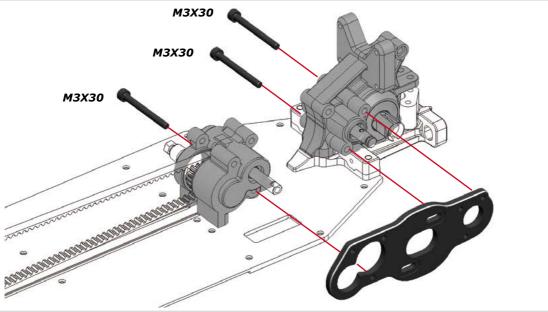
15





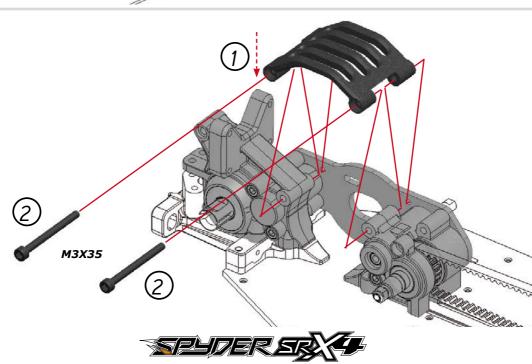
STEP 17

Bag 3

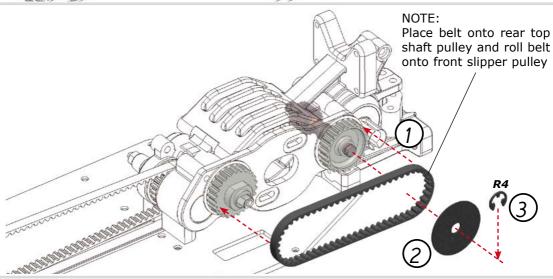


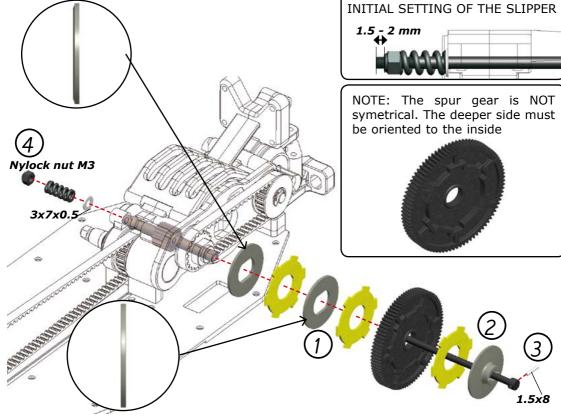
STEP 18





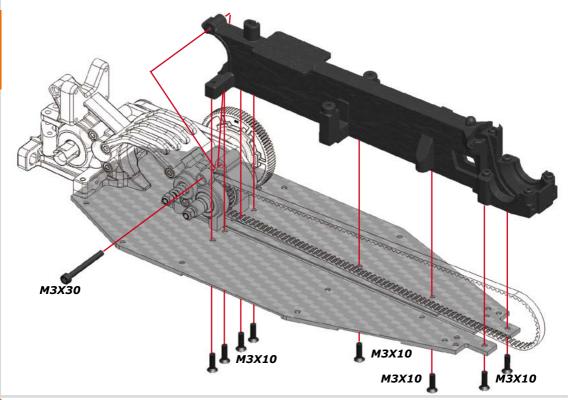
STEP





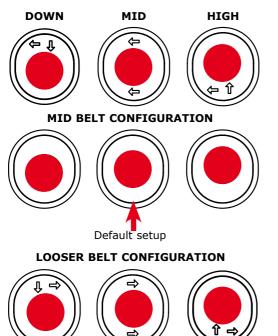


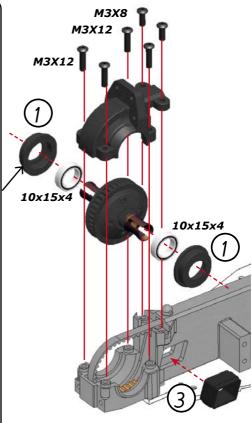


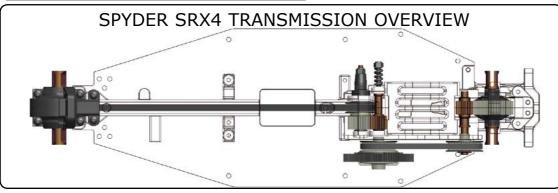


DIFF HEIGHT AND BELT TENSION SETTING: Change the indicated inserts to move the diff up or down and to tighten / loosen the front belt tension. *Inner part of right insert* is shown below pictures.

TIGHTER BELT CONFIGURATION





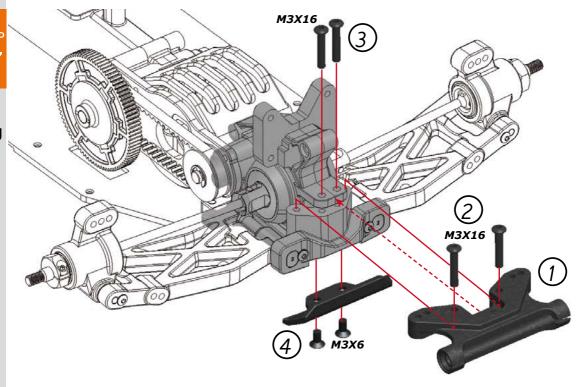




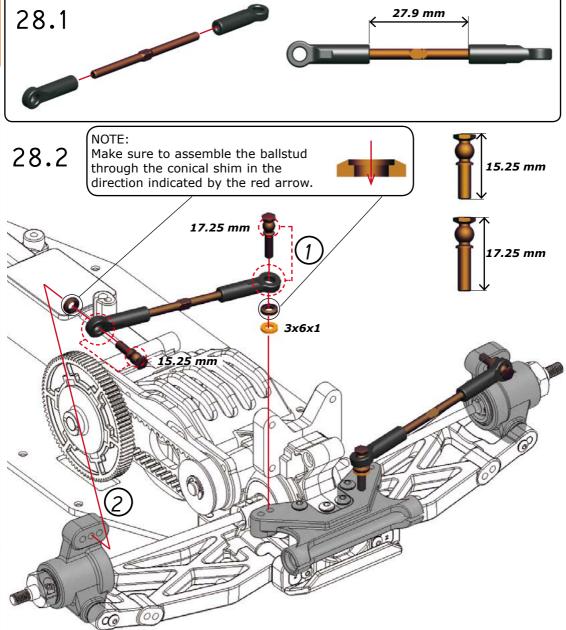






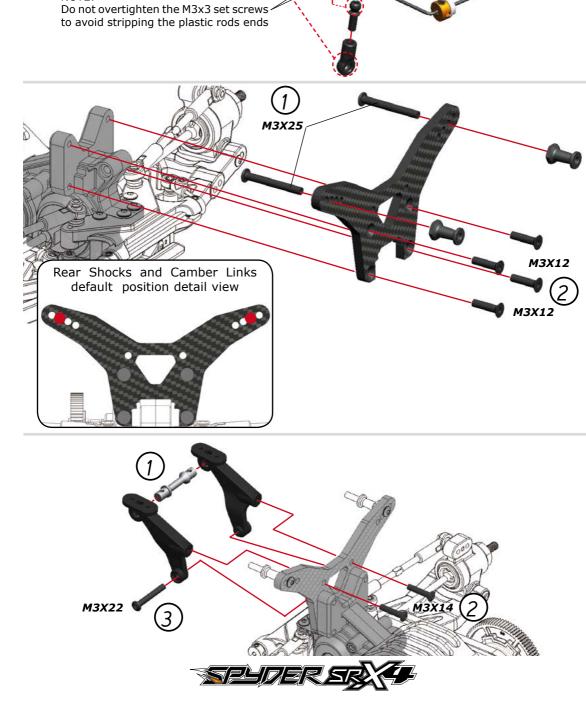


STEP 28





мзхз



NOTE: Do not tighten the M3x3 set screws yet.

4X7X3 Flanged (1

29.2

МЗХЗ

They have to be tighten once the anti-roll bar is assembled and centered.

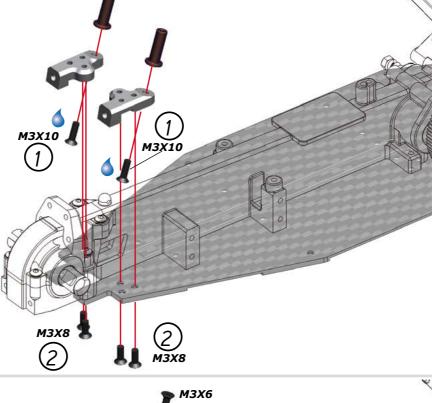
M3x3

31



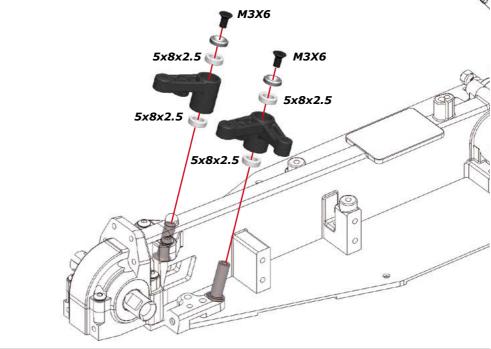
STEP 32

Bag 6



FRONT ASSEMBLY

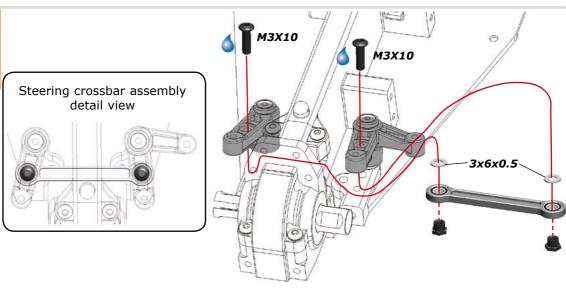
STEP 33



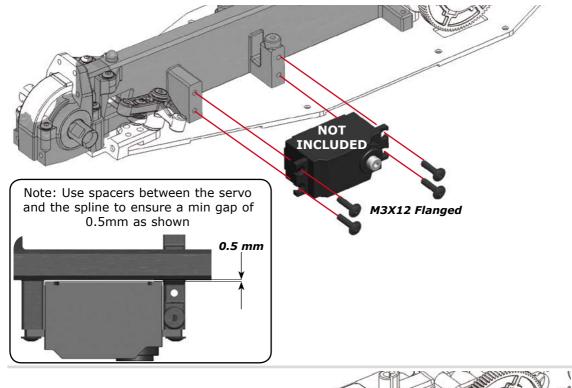
STEP 34

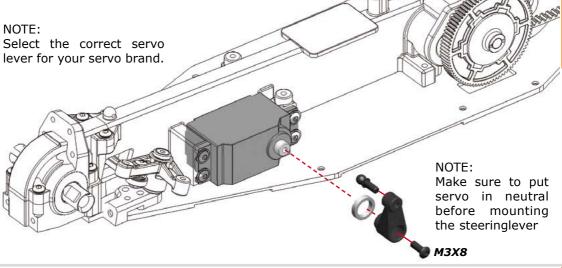


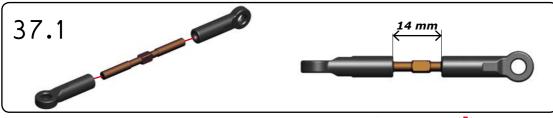
Page 14

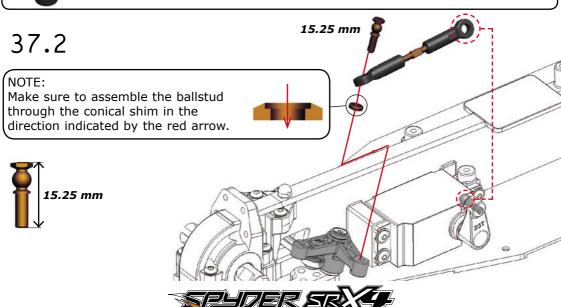


SELDER SEX



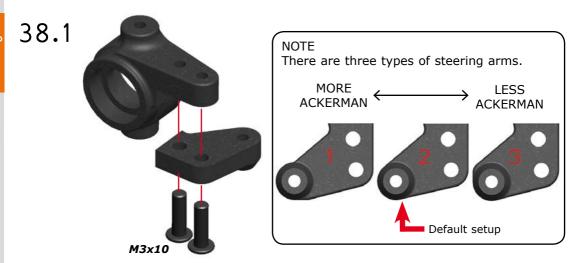




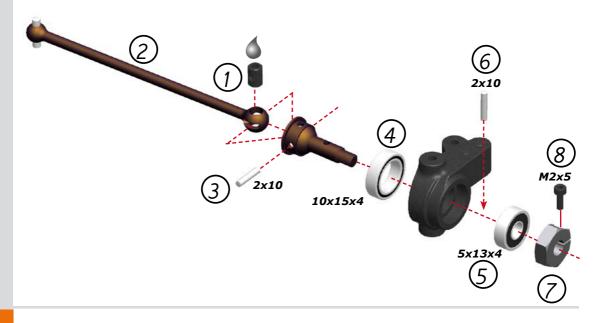




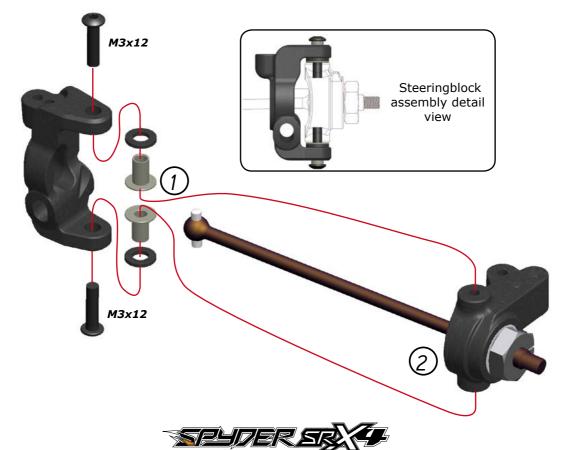
Bag 7



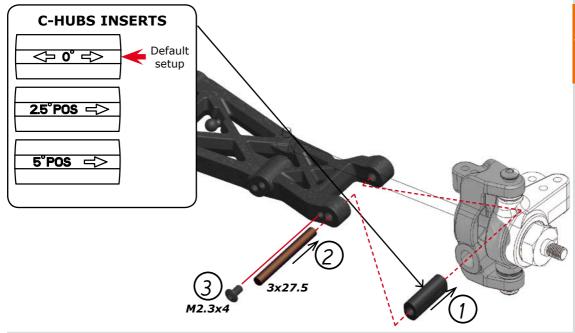
38.2

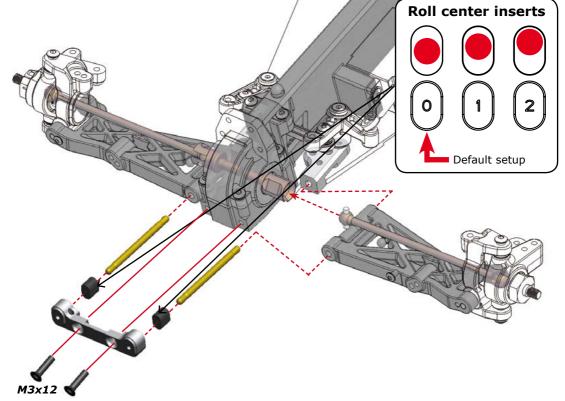


39







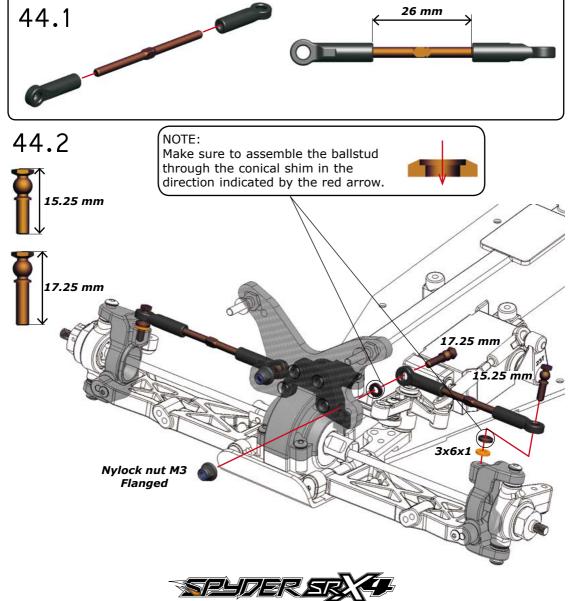


M3x6

Page 17

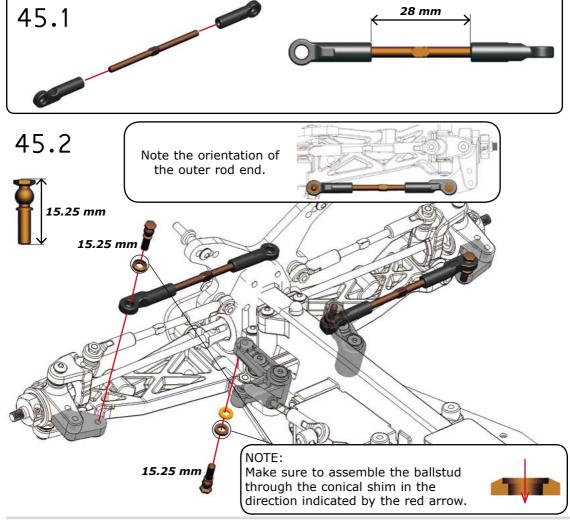
STEP 42

Bag 8





28 mm



SHOCK ABSORBERS ASSEMBLY



SHOCKS

FRONT

STEP 46

Bag

REAR

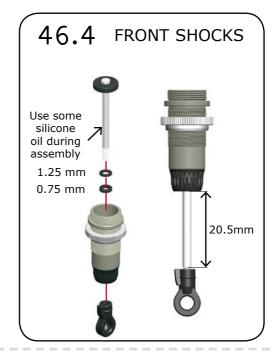
SHOCKS

Bag 10









46.5

Fill the shockbody with silicone oil fully.

Move the shockrod up and down slowly to let airbubles escape



46.6

Apply the gasket and cap and close fully.

Bleed: push the shockrod all the way in slowly, to allow excessive oil to escape.



46.7

With shockrod fully in, mount the o-ring **M2.3x4** and screw.



46.8

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

Assemble the SHORT springs in the front shocks and the LONG springs in the rear shocks.

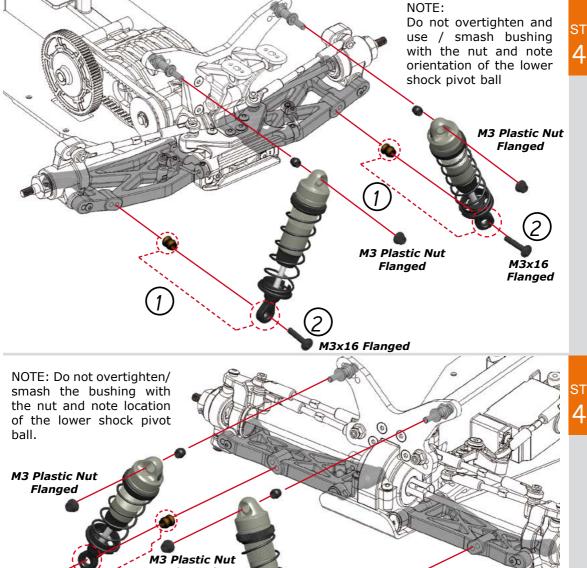


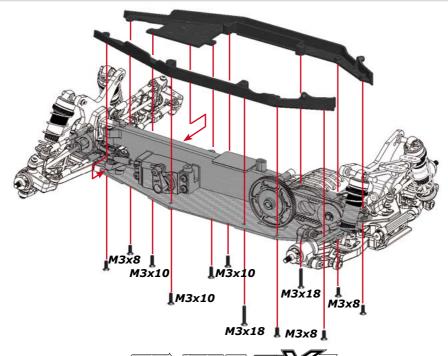












Flanged

M3x16 Flanged **©**

M3x16 Flanged

SELDER SEXT

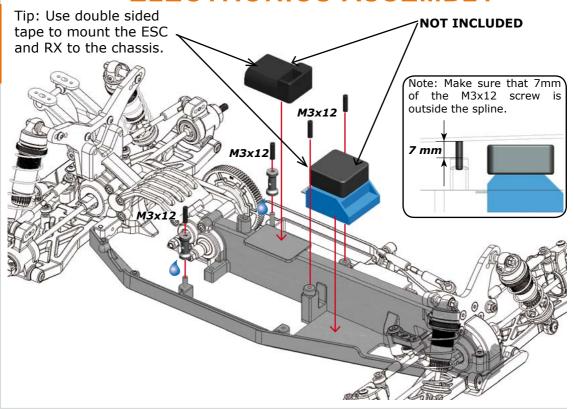
STEP **49**

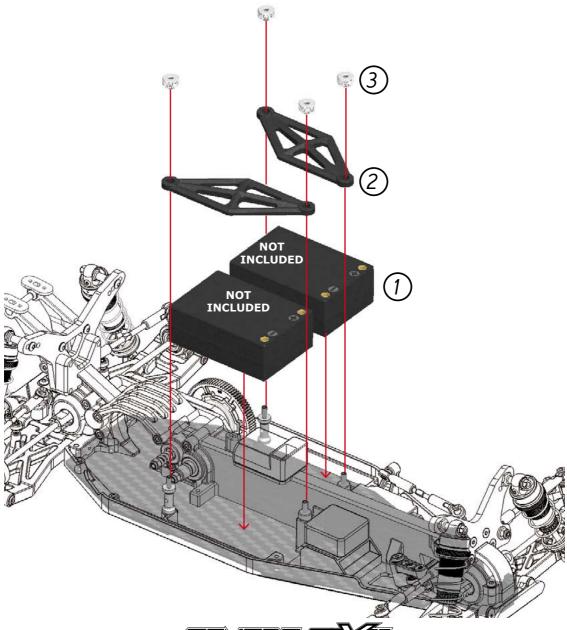
Bag 1 1



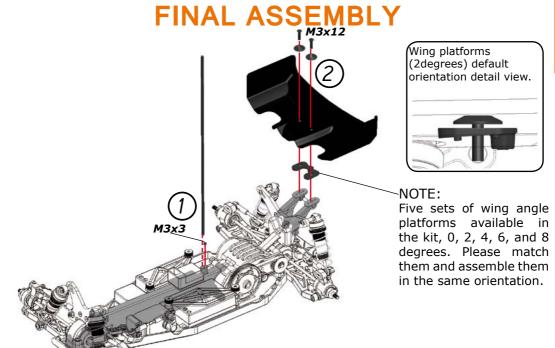
STEP

ELECTRONICS ASSEMBLY









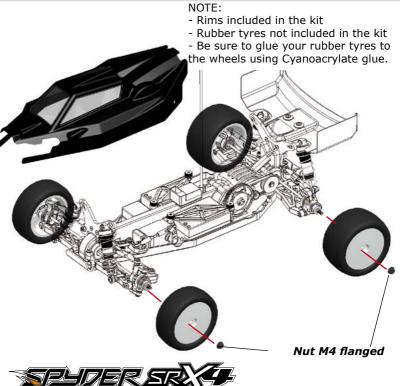
BODYSHELL:

1) Apply the masking sheet provided and paint the body on the inside.

2) Cut the body along the provided cuttinglines on the body for a perfect fit. Same for the body mounting holes.

3) Remove the body protection film on the outside of the body.

4) Apply the provided Serpent and Spyder decals, and mount the body on the bodyposts, with the provided bodyclips.





STEP

REF GUIDE:

EXPLODED VIEWS and PARTS-LIST

Contents

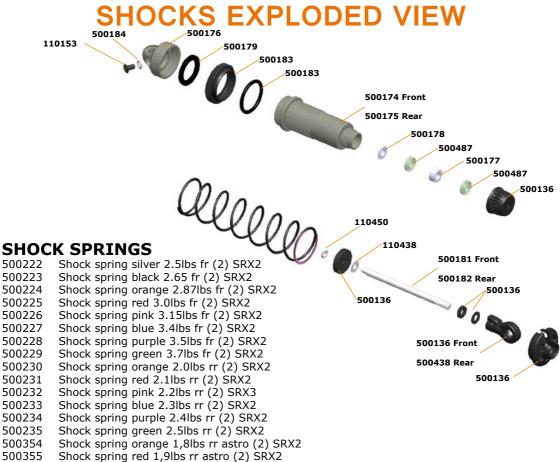
FRONT & REAR GEAR-DIFF EXPLODED VIEW	25
SHOCKS EXPLODED VIEW	25
MID TRANSMISSION EXPLODED VIEW	26
TRANSMISSION EXPLODED VIEW	27
REAR ASSEMBLY EXPLODED VIEW	28
FRONT ASSEMBLY EXPLODED VIEW	29
FINAL ASSEMBLY I EXPLODED VIEW	30
FINAL ASSEMBLY II EXPLODED VIEW	31
OPTIONALS AND MERCHANDISING	32





FRONT & REAR GEAR-DIFF EXPLODED VIEW





Shock spring pink 2,0lbs rr astro (2) SRX2

Shock spring blue 2,1lbs rr astro (2) SRX2

Shock spring purple 2,2lbs rr astro (2) SRX2

Shock spring green 2,3lbs rr astro (2) SRX2

500356 500357

500358

500359



MID TRANSMISSION EXPLODED VIEW







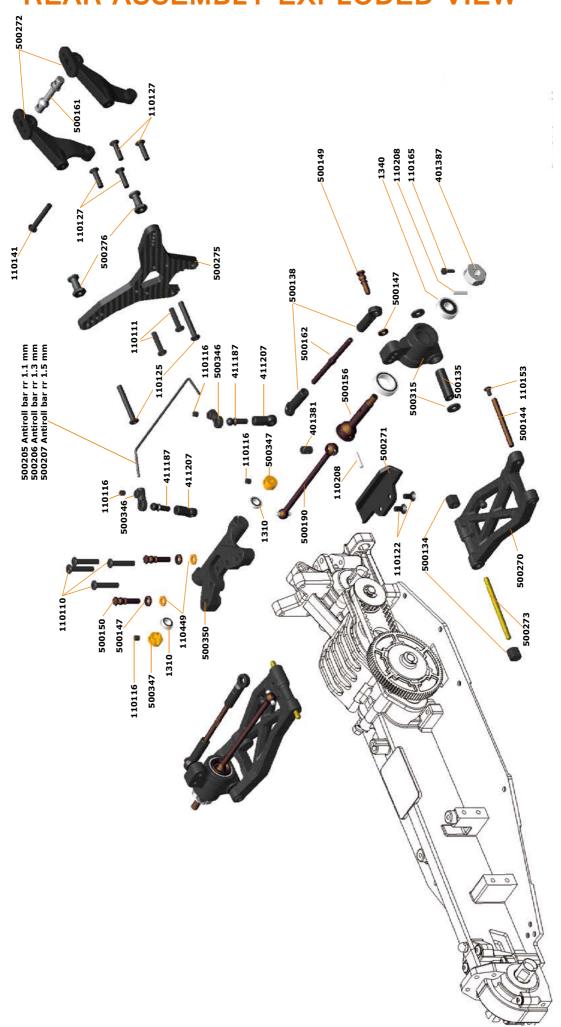
TRANSMISSION EXPLODED VIEW







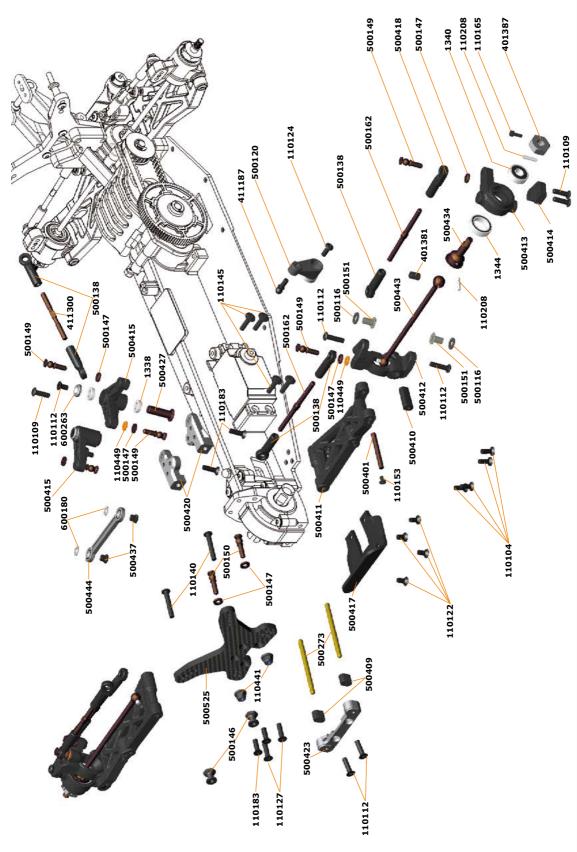
REAR ASSEMBLY EXPLODED VIEW



SPLIPER SEXT



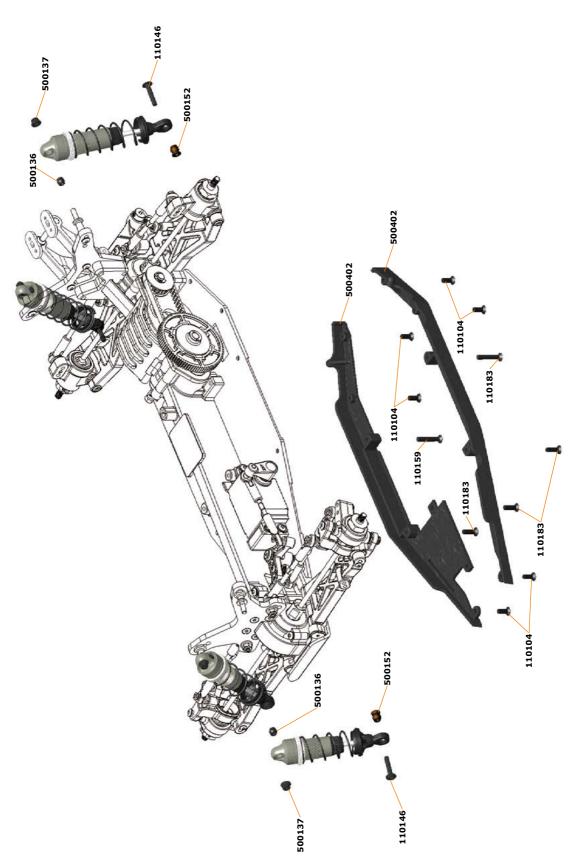
FRONT ASSEMBLY EXPLODED VIEW







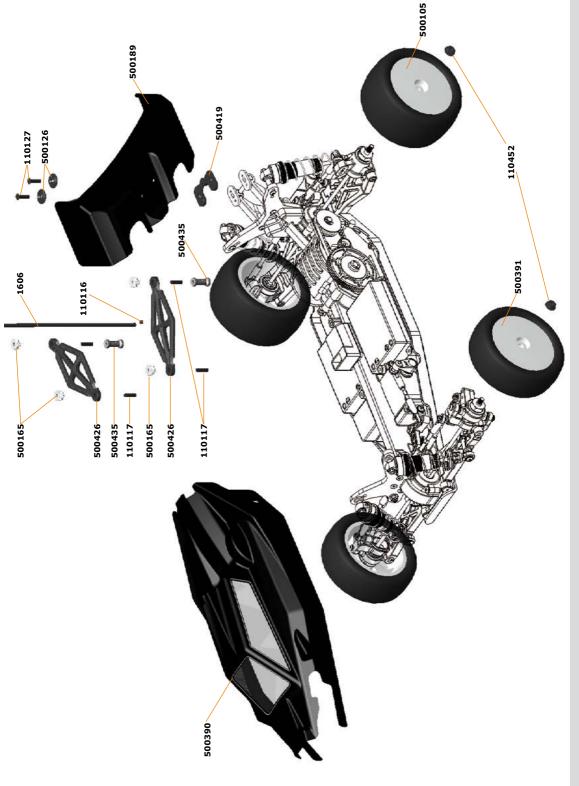
FINAL ASSEMBLY I EXPLODED VIEW







FINAL ASSEMBLY II EXPLODED VIEW







	OPTIONALS AND	MER	CHANDISING
Part no	Description	REAR SE	ECTION
500010	Serpent Spyder Buggy SRX-4 4wd 1/10	500106	1/10 buggy rim rr yellow (2)
		500205	Antiroll bar rr 1.1 SRX2
DECALS		500206	Antiroll bar rr 1.3 SRX2
1886	Decal Serpent black/white 1/10 (2)	500207	Antiroll bar rr 1.5 SRX2
1888	Decal Serpent chrome 1/10 (2)	500251	Rear wing 6.0" SRX2
500389	Decal sheet SRX4 black/white (2)	500252	Rear wing 7.0" SRX2
		500255	Suspension insert rr 3deg alu (2) SRX2
_	STALLATION / BATTERY	500258	Antirollbar balljoints (2+2) SRX2
1606	Antenna rod black (2)	500262	Pivot pin fr inner / rr outer TiN coated (2) SRX2
500463	Battery plate carbon (2) SRX4	500281	Antiroll bar set rr SRX2 MM
OFDVO O	AVED AND OTEEDING	500286	Bumper rear brass SRX2 MM
	AVER AND STEERING	500350	Antirollbar mount RR SRX2 MM
500462 500464	Bellcrank alu L+R SRX4	500375 500393	Rear wing 7" (2) SRX
500404	Bellcrank post alu (2) SRX4	500393	1/10 buggy rim rr 61m white (2) 1/10 buggy rim rr 61mm yellow (2)
SHUCK V	BSORBERS	500394	Antiroll bar rr 1.7 SRX
500180	Shock membrame (4) SRX2	300473	Antifoli bal il 1.7 SIXX
500100	Shock top bushing delrin (4) SRX2	TRANSM	ISION
500201	Shock shaft fr TiN coated (2) SRX2	411069	Differential balls steel 1/8" (12)
500201	Shock shaft rr TiN coated (2) SRX2	411107	Diff balls. 1/8 ceramic (12)
500238	Shock piston conical 2 holes (4) SRX2	500167	Diff pully balldiff 51T (1) SRX2
500239	Shock piston conical 3 holes (4) SRX2	500168	Diff ring balldiff (2) SRX2
500240	Shock piston conical 4 holes (4) SRX2	500169	Balldiff outdrive male SRX2
500450	Shock bottom cap alu (4) SRX	500170	Balldiff outdrive female SRX2
500488	Shock piston square machined 2-hole 1.3 (4)	500171	Balldiff spring (2) SRX2
500489	Shock piston square machined 3-hole 1.2 (4)	500172	Balldiff bolt (2) SRX2
500490	Shock piston square machined 4-hole 1.1 (4)	500173	Balldiff thrustbearing SRX2
	, ,	500186	Balldiff set SRX2
SPRINGS		500187	Balldiff T-nut (2) SRX2
500222	Shock spring silver 2,5lbs fr (2) SRX2	500242	Slipper plates vented alu (3) SRX2
500223	Shock spring black 2,65 fr (2) SRX2	500254	Geardiff housing 51T SRX2
500224	Shock spring orange 2,87lbs fr (2) SRX2	500256	Thrustbearing carbide balldiff SRX2
500225	Shock spring red 3,0lbs fr (2) SRX2	500259	Differential balls carbide 1/8" (12)
500226	Shock spring pink 3,15lbs fr (2) SRX2	500376	Slide drive set SRX
500227	Shock spring blue 3,4lbs fr (2) SRX2	500378	Slide drive driveshaft SRX (2)
500228	Shock spring purple 3,5lbs fr (2) SRX2	500380	Balldiff outdrive slide drive male
500229	Shock spring green 3,7lbs fr (2) SRX2	500381	Balldiff outdrive slide drive female
500230	Shock spring orange 2,0lbs rr (2) SRX2	500382	Diff sliders (2)
500231	Shock spring red 2,1lbs rr (2) SRX2	500388	Geardiff outdrive slide drive (2)
500232	Shock spring pink 2,2lbs rr (2) SRX3	500432	Slipper spacer SRX4
500233	Shock spring blue 2,3lbs rr (2) SRX2	500441	Slipper shaft pulley 20T SRX4
500234	Shock spring purple 2,4lbs rr (2) SRX2	500442	Top shaft pulley 20T SRX4
500235	Shock spring green 2,5lbs rr (2) SRX2	500447	Slipper shaft pulley 24T SRX4
500354	Shock spring orange 1,8lbs rr astro (2) SRX2	500452	Clicker spring soft SRX4
500355 500356	Shock spring red 1,9lbs rr astro (2) SRX2 Shock spring pink 2,0lbs rr astro (2) SRX2	500453 500454	Clicker spring medium SRX4 Clicker spring hard SRX5
500357	Shock spring blue 2,1lbs rr astro (2) SRX2	500454	Oneway pulley 34T fr SRX4
500357	Shock spring blue 2, flos if astro (2) SRX2 Shock spring purple 2,2lbs rr astro (2) SRX2	500459	Balldiff pulley 34T fr SRX4
500359	Shock spring green 2,3lbs rr astro (2) SRX2	500465	Overdrive 34T gear mid SRX4
000000	Official Spring grown 2,0100 if dollo (2) Office	500466	Overdrive Slippershaft 21T SRX4
FRONT S	ECTION	500467	Full time 4wd 20T slipper shaft SRX4
500261	Pivot pin rr inner TiN coated (2) SRX2 RM	500468	Front oneway axle SRX4
500211	Wheelhexagon +0.75mm offset (2)	500469	Front oneway outdrives (2) SRX4
500392	1/10 buggy rim fr 4wd yellow (2)	500470	Antirollbar adaptor / balljoint fr (2+2) SRX4
500397	1/10 buggy rim fr 4wd 61mm white (2)	500471	Full time 4wd 20T slipper pulley SRX4
500398	1/10 buggy rim fr 4wd 61mm yellow (2)	500472	Front oneway axle set SRX4
500455	Antiroll bar fr 1.2 SRX4	500477	Solid slipper plate inner SRX4
500456	Antiroll bar fr 1.3 SRX4	500478	Belt side 45S3M174 SRX4
500457	Antiroll bar fr 1.4 SRX4	500479	Gear mid 30T SRX4
500458	Antiroll bar mount fr SRX4	500480	Clicker SRX4
500470	Antirollbar adaptor / balljoint fr (2+2) SRX4	500482	Slipper trust bearing SRX4
500473	Wheelhexagon fr EOS (2) SRX4	500483	Slipper set SRX4
500474	Wheelaxle fr EOS (2) SRX4	600116	O-ring tank (4)
MIDDLE S		BODY AN	
500461	Chassis alu SRX4	500251	Rear wing 6.0" SRX2





Chassis alu SRX4 Battery plate carbon (2) SRX4

500251 Rear wing 6.0" SRX2 500252 Rear wing 7.0" SRX2 500375 Rear wing 7" (2) SRX



SPURGE	AR	190157	Polo shirt Serpent black (M)		
500213	Spur gear 70T SRX2	190158	Polo shirt Serpent black (L)		
500214	Spur gear 72T SRX2	190159	Polo shirt Serpent black (XL)		
500215	Spur gear 76T SRX2	190160	Polo shirt Serpent black (XXL)		
500216	Spur gear 78T SRX2	190161	Polo shirt Serpent black (XXXL)		
500217	Spur gear 80T SRX2	190182	T-shirt Serpent Splash white (S)		
500218	Spur gear 82T SRX2	190183	T-shirt Serpent Splash white (M)		
500219	Spur gear 84T SRX2	190184	T-shirt Serpent Splash white (L)		
500220	Spur gear 86T SRX2	190185	T-shirt Serpent Splash white (XL)		
500221	Spur gear 88T SRX2	190186	T-shirt Serpent Splash white (XXL)		
OUULL!	opar goar con orac	190187	T-shirt Serpent Splash white (XXXL)		
PINIONS		190188	T-shirt Serpent Splash orange (S)		
120156	Motor-pinion alu hard 48P / 18T	190189	T-shirt Serpent Splash orange (M)		
120157	Motor-pinion alu hard 48P / 19T	190190	T-shirt Serpent Splash orange (L)		
120158	Motor-pinion alu hard 48P / 20T	190191	T-shirt Serpent Splash orange (XL)		
120159	Motor-pinion alu hard 48P / 21T	190192	T-shirt Serpent Splash orange (XXL)		
120160	Motor-pinion alu hard 48P / 22T	190193	T-shirt Serpent Splash orange (XXXL)		
120161	Motor-pinion alu hard 48P / 23T	190194	T-shirt Serpent Splash black (S)		
120162	Motor-pinion alu hard 48P / 24T	190195	T-shirt Serpent Splash black (M)		
120163	Motor-pinion alu hard 48P / 25T	190196	T-shirt Serpent Splash black (L)		
120164	Motor-pinion alu hard 48P / 26T	190197	T-shirt Serpent Splash black (XL)		
120165	Motor-pinion alu hard 48P / 27T	190198	T-shirt Serpent Splash black (XXL)		
120166	Motor-pinion alu hard 48P / 28T	190199	T-shirt Serpent Splash black (XXXL)		
120167	Motor-pinion alu hard 48P / 29T	190201	Hoody sweater Serpent black-zip (S)		
120168	Motor-pinion alu hard 48P / 30T	190202	Hoody sweater Serpent black-zip (M)		
120100	Motor philori did flara 401 / 001	190203	Hoody sweater Serpent black-zip (M)		
TOOLS		190204	Hoody sweater Serpent black-zip (XL)		
190500	Pit-caddy	190205	Hoody sweater Serpent black-zip (XL)		
190501	Tool-bag	190206	Hoody sweater Serpent black-zip (2XL)		
190502	Pit-bag medium. 3 drawers	190207	Hoody sweater Serpent black-zip (4XL)		
190502	Ballcup tool	130207	1100dy sweater Gerpent black-zip (+XL))		
190504	Toolset for onroad (17pcs) with tools bag				
190507	Toolset for ep (16pcs) with tools bag				
190508	Toolset for offroad (20pcs) with tools bag				
190509	Allen wrench 1.5 x 120mm				
190510	Allen wrench 2.0 x 120mm				
190511	Allen wrench 2.5 x 120mm				
190512	Allen wrench 3.0 x 120mm				
190513	Ball driver hex wrench 2.0 x 120mm				
190514	Ball driver hex wrench 2.5 x 120mm				
190515	Ball driver hex wrench 3.0 x 120mm				
190516	Tool tip allen wrench 1.5 x 120mm				
190517	Tool tip allen wrench 2.0 x 120mm				
190518	Tool tip allen wrench 2.5 x 120mm				
190519	Tool tip allen wrench 3.0 x 120mm				
190520	Tool tip ball driver hex wrench 2.0 x 120mm				
190521	Tool tip ball driver hex wrench 2.5 x 120mm				
190522	Tool tip ball driver hex wrench 3.0 x 120mm				
190523	Turnbuckle wrench 3mm				
190524	Turnbuckle wrench 4mm				
190525	Turnbuckle wrench 5mm				
190526	Flat head screwdriver 3.0 x 150mm				
190527	Flat head screwdriver 4.0 x 150mm				
190528	Phillips screwdriver 2.0 x 45mm				
190529	Phillips screwdriver 3.5 x 120mm				
190530	Phillips screwdriver 5.8 x 120mm				
190539	Nut driver 4.5 x 100mm				
190531	Nut driver 5.0 x 100mm				
190532	Nut driver 5.5 x 100mm				
190533	Nut driver 7.0 x 100mm				
190534	Reamer with end cap for lexan body				
	· · · · · · · · · · · · · · · · · · ·				
MERCHA	MERCHANDISING				
1000	•				

1896	Cap serpent black-orange
190172	Winter jacket Serpent black-orange hooded (M)
190173	Winter jacket Serpent black-orange hooded (L)
190174	Winter jacket Serpent black-orange hooded (XL)
190175	Winter jacket Serpent black-orange hooded (2XL)
190176	Winter jacket Serpent black-orange hooded (3XL)
190208	Winter jacket Serpent black-orange hooded (4XL)
190156	Polo shirt Serpent black (S)









