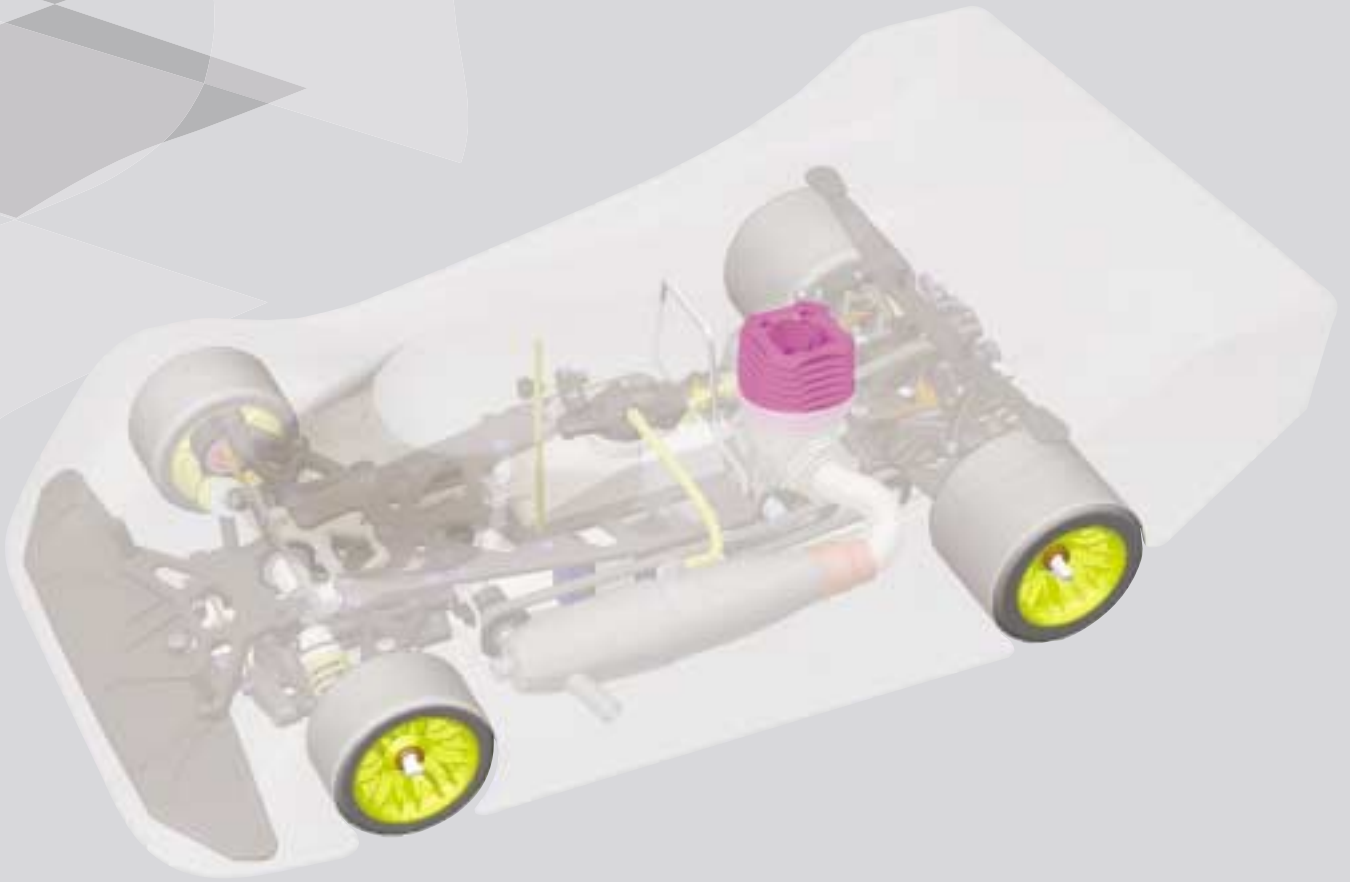


# **SERPENT** 950

1:8 SCALE 4WD GAS ON-ROAD COMPETITION



## *Reference Guide*

# SERPENT 950

## Introduction

### Parts list and Exploded views

The parts list and the exploded views for the Serpent 950 are separate from the Instruction manual. The exploded views show all the parts for a particular assembly step, together with the Serpent part number. In the parts list at the back of this booklet you will find with the part number the name of the part. Besides all the Serpent 950 parts as used in this car kit, you will also find in the part list all the optional parts for the Serpent 950, as well as a listing of general items like fasteners and promotional items.

Serpent will regularly update the Serpent 950 parts list and will make it available on the Serpent 950 product page on myTSN, check under 'Downloads'. This product page can be accessed directly at the following address:

[www.myTSN.com/Serpent950](http://www.myTSN.com/Serpent950)

Make sure to check out the Serpent 950 product page on myTSN frequently. All information about your car can be found here: publications, news items, set-ups, FAQ's, images, downloads, video's and interesting forums in several languages. MyTSN provides you with an enormous amount of interesting and often valuable information about the Serpent 950, information provided by Serpent, its factory and team drivers, and experienced users from around the world. Often this information is even available in several languages! If you're not a member of myTSN.com yet, sign up today and experience why Serpent excels not only on the track, but also on the Internet.

## Contents

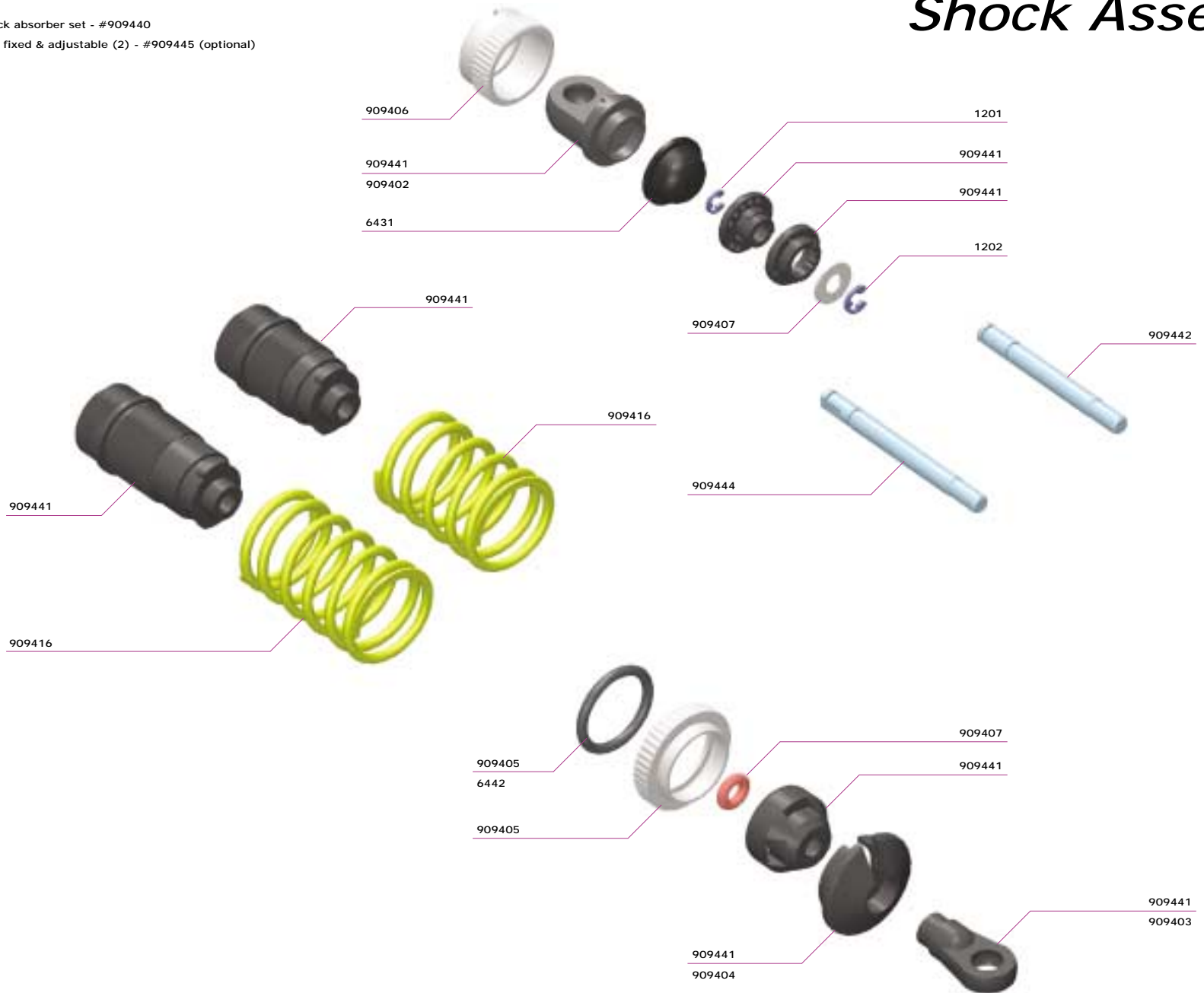
	<i>Description</i>	<i>Page</i>
1.	Shock Assembly	3
2.	Front Assembly	4
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# PERFORMANCE THROUGH EVOLUTION

# Shock Assembly

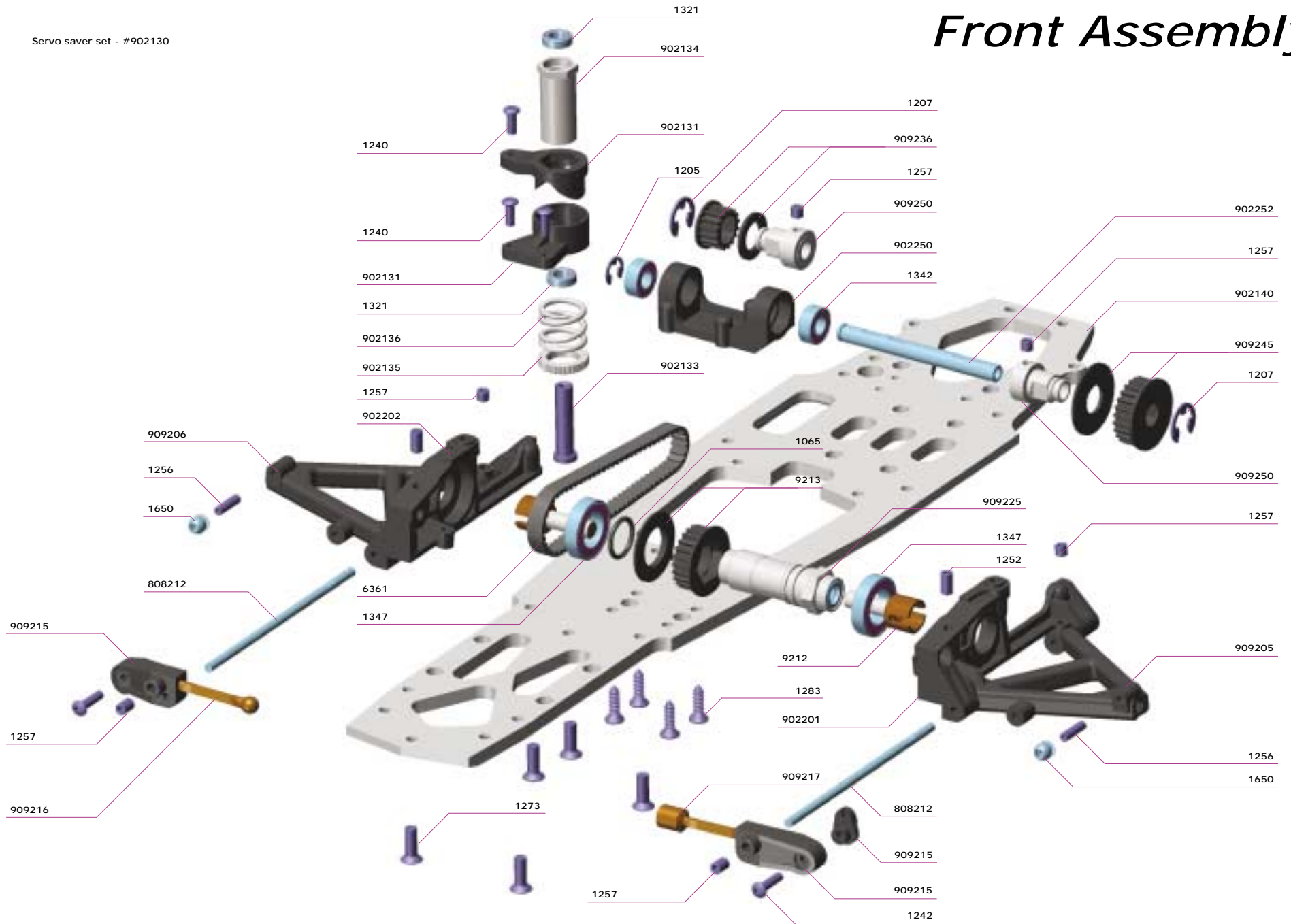
Complete Shock absorber set - #909440

Piston set key fixed & adjustable (2) - #909445 (optional)



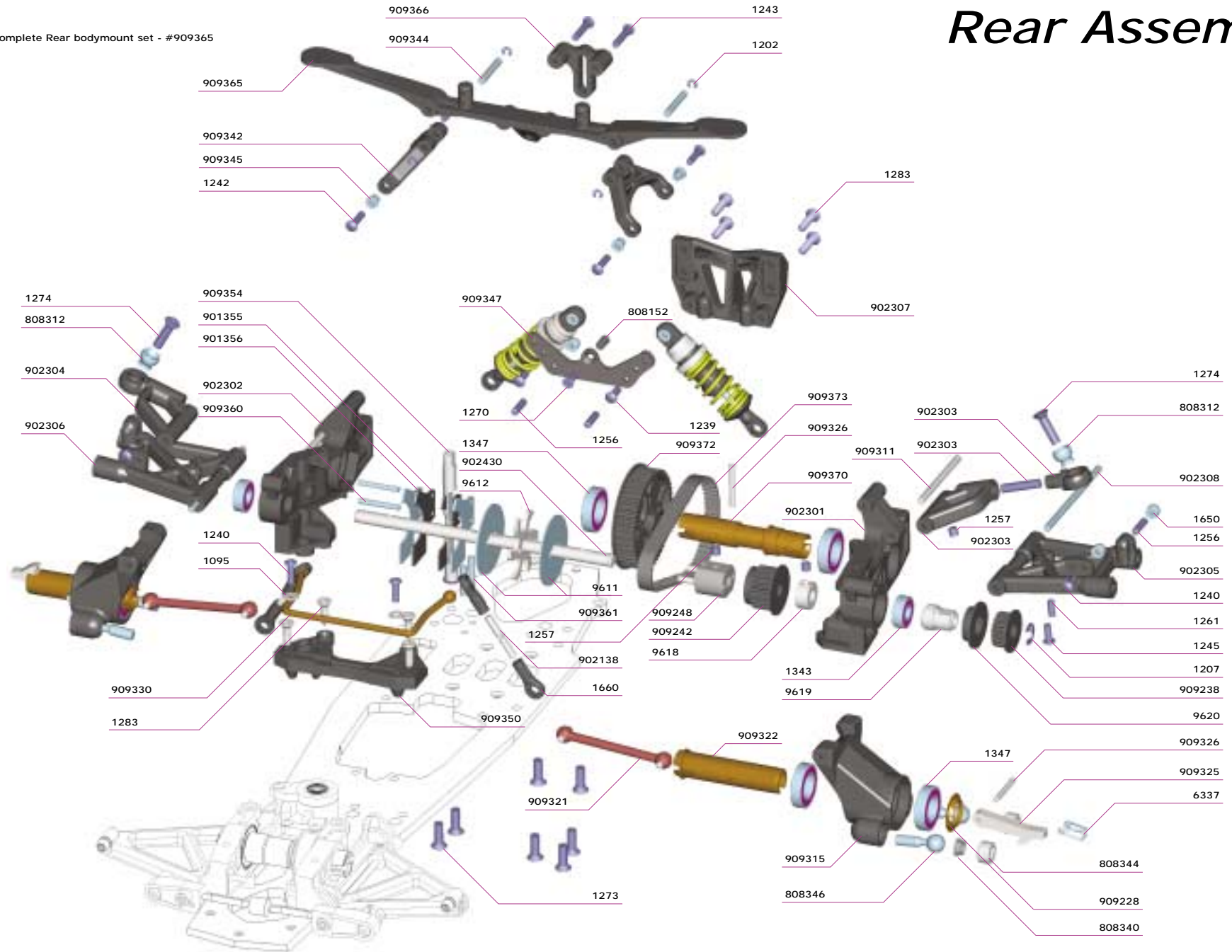
Servo saver set - #902130

# Front Assembly

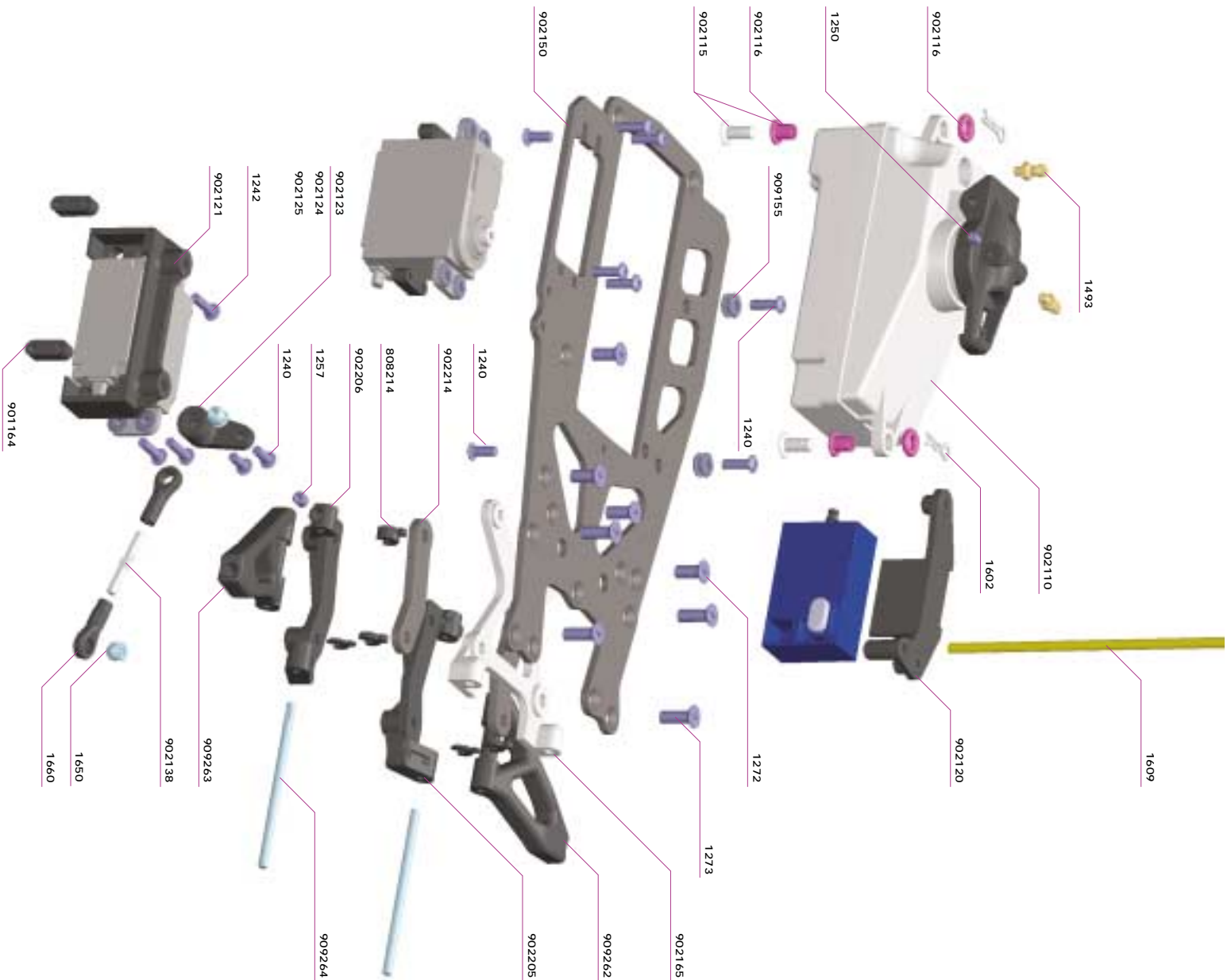


# Rear Assembly

Complete Rear bodymount set - #909365

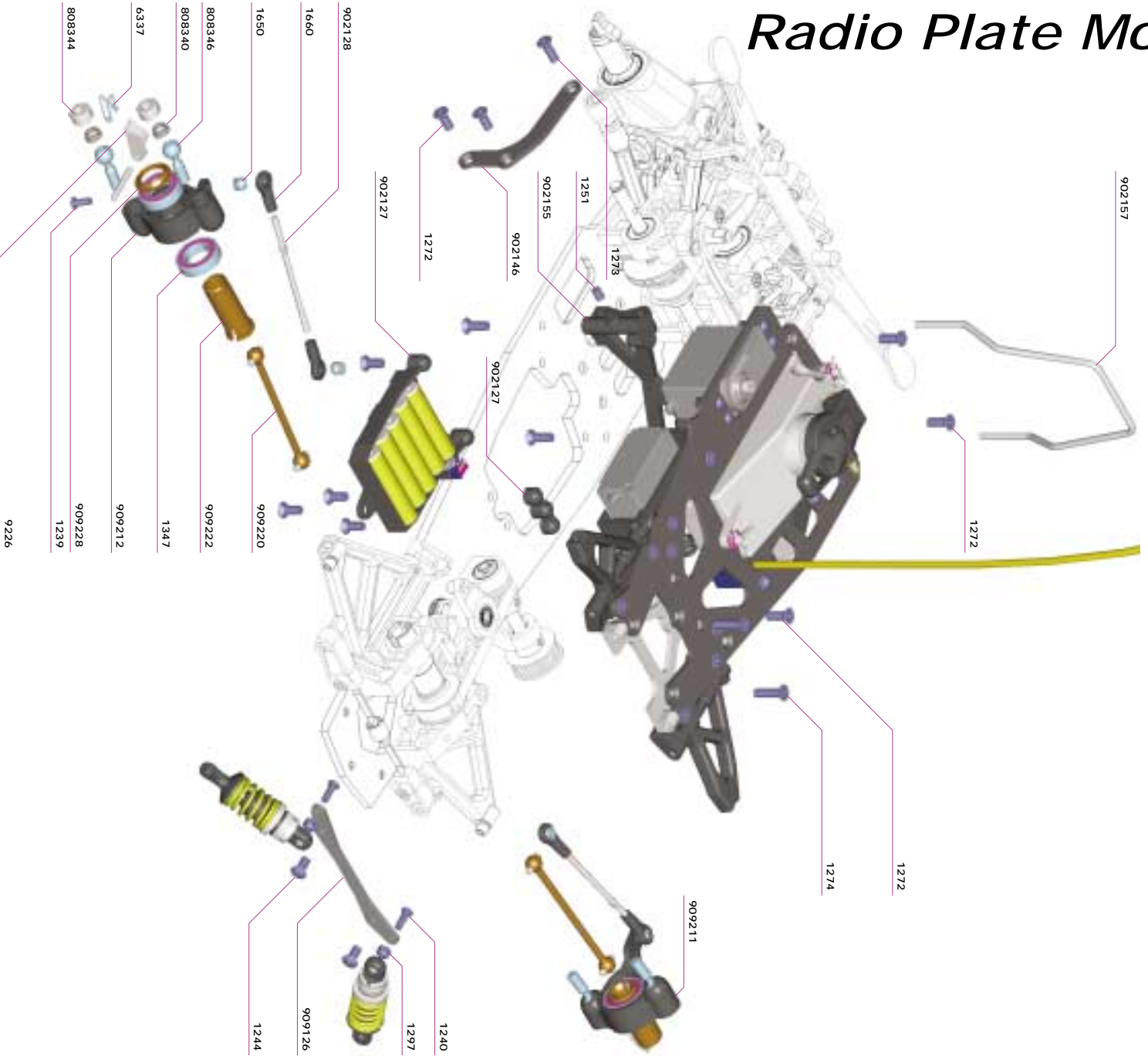


# Radio Plate Assembly



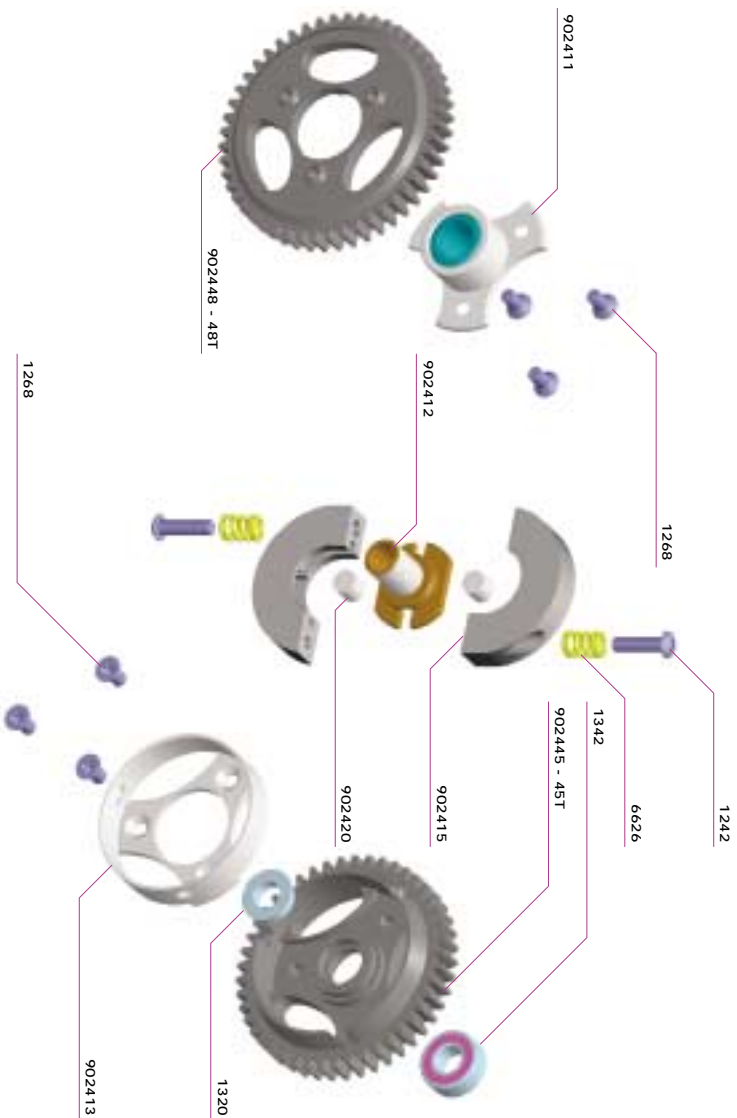


# Radio Plate Mounting



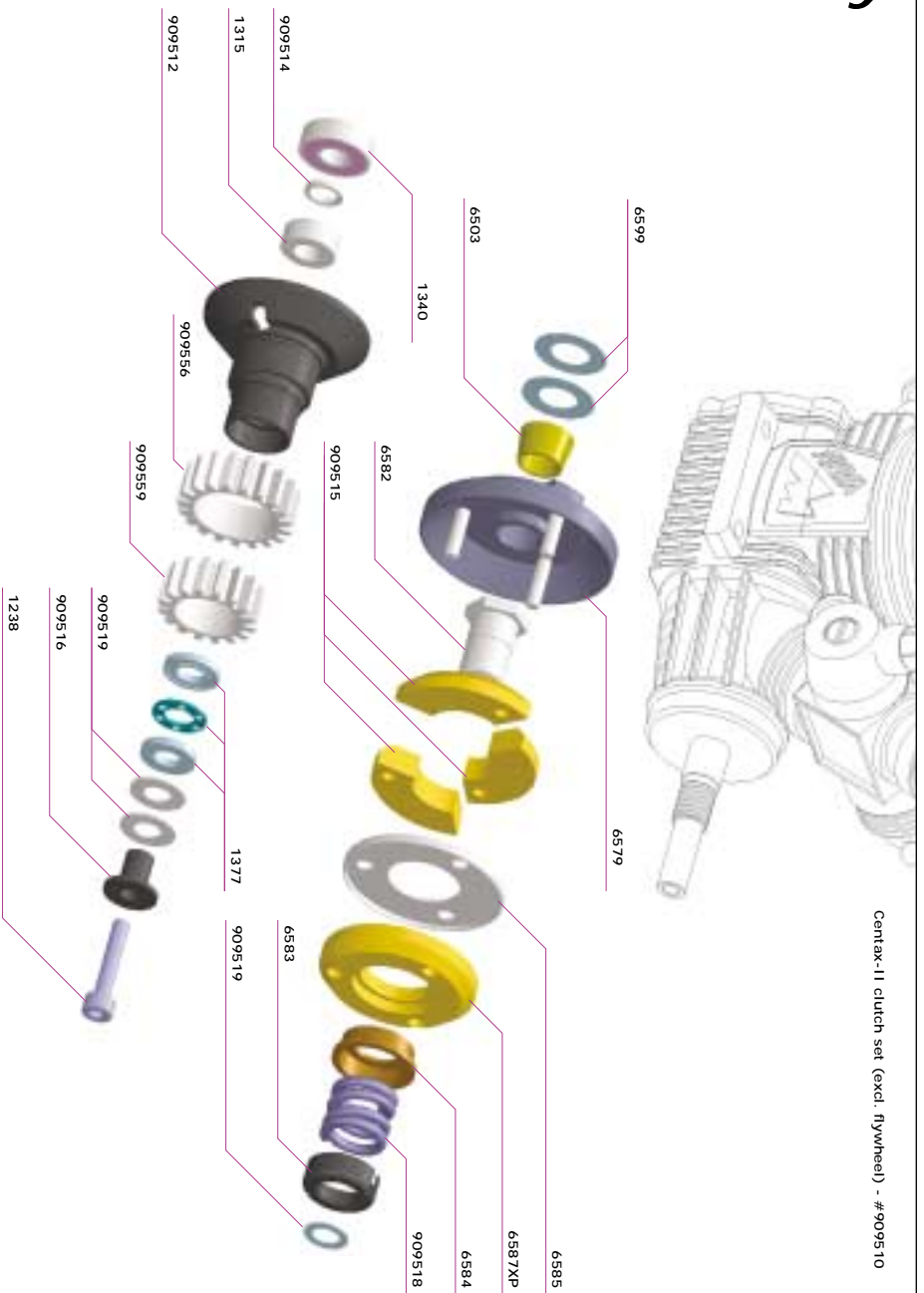
# Gearbox Assembly

2 Speed gearbox LC (no shaft Incl.) - #902410  
 2 Speed shaft 950 - #902430



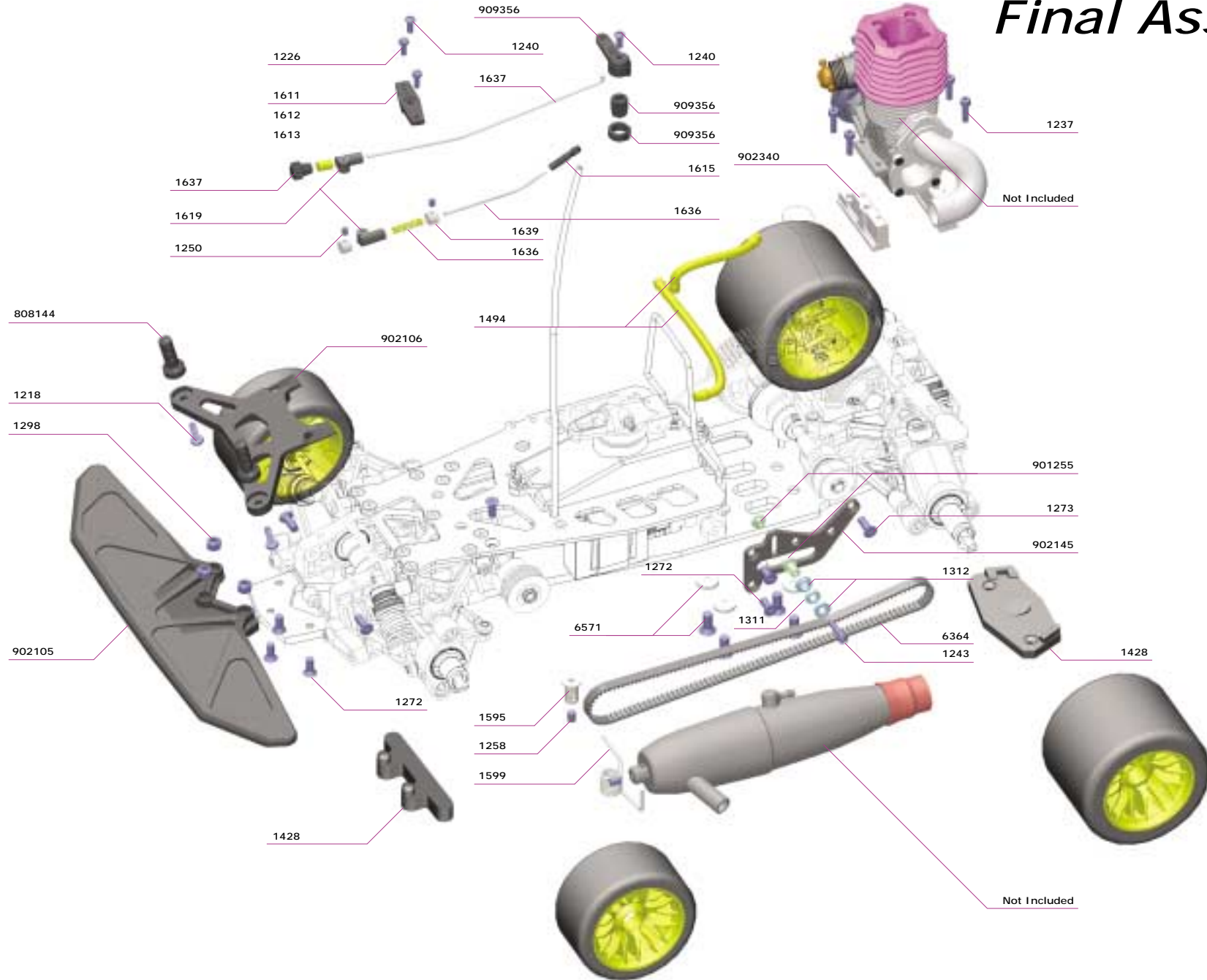
# Centax Assembly

Centax-II clutch set (excl. flywheel) - #909510





# Final Assembly



# Parts List - Serpent 950

To ensure that you have the most up to date parts list you can download the latest version from the internet by simply typing in the following URL and selecting the file from the 'downloads' section.

[www.myTSN.com/Serpent 950](http://www.myTSN.com/Serpent_950)

## ART No. DESCRIPTION

902000 Serpent 950 1/8 4WD

## Manuals & Decals

902190 Instructions & set-up 950  
902191 Reference-guide 950  
902192 Decal-sheet black/white

## Radio Installation

902120 Mounting bracket receiver  
902127 Mounting bracket battery pack  
902121 Mounting bracket steering servo  
902123 Steering-servo lever 23T  
902124 Steering-servo lever 24T  
902125 Steering-servo lever 25T  
1611 Servo lever 23T (2)  
1612 Servo lever 25T (2)  
1613 Servo lever 24T (2)  
1636 Throttle linkage set  
1637 Brake-linkage set  
1619 Wire-guider nylon  
1604 Antenna rods pink (2)  
1605 Antenna rods green (2)  
1606 Antenna rods black (2)  
1607 Antenna rods blue (2)  
1608 Antenna rods orange (2)  
1609 Antenna rods purple (2)

## Servo and steering system

902128 Track-rod set (2)  
902130 Servo-saver set 950  
902131 Servo-saver nylon parts  
902133 Servo-saver shaft inner  
902134 Servo-saver shaft outer  
902135 Servo-saver pre-tension nut  
902136 Servo-saver spring  
902138 Rod threaded L+R (2)

## Fuel tank and parts

902110 Fueltank 125ccm with AFL-cap  
902115 Mounting-pin tank + rubber cap (2)  
902116 Cap rubber for mounting pin tank (2)  
1602 Tank-clips small (10)  
1431 Rubber tank seals (4)  
1493 Pressure nipple  
1494 Silicone tubing 50cm white  
1495 Silicone tubing 50cm yellow  
1496 Silicone tubing 50cm orange  
1497 Silicone tubing 50cm green

## Ball Bearings

1311 Ball bearing 5x8  
1312 Ball bearing 5x8 flanged  
1320 Ball bearing 6x10 flanged  
1324 Ball bearing 6x15  
1315 Ball bearing 5x10  
1377 Thrustbearing 5X10  
1340 Ball-bearing 5x13 HS Purple (2)  
1342 Ball-bearing 6x13 HS Purple (2)  
1343 Ball-bearing 6x15 HS Purple (2)  
1344 Ball-bearing 10x15 HS Purple (2)  
1345 Ball-bearing 10x19 HS Purple (2)  
1346 Ball-bearing 12x18 HS Purple (2)  
1347 Ball-bearing 12x21 HS Purple (2)

## Shock Absorbers

909440 Shock-set 4-STEP KEY FR+RR (2)  
909441 Shock-parts nylon 4-step (2)  
909405 Shock-adj nut alu + o-rings (4)  
909406 Shock-cap-nut alu. (2)

909442 Pistons rod FR key hardened (2)  
909444 Pistons rod RR key hardened (2)  
6431 Membranes (4)  
909407 O-ring set + washers  
909404 Spring support washers (4)  
909414 Spring-set D=1.5 L=27-22.7 orange (4)  
909415 Spring-set D=1.5 L=27-22.7 white (4)  
909416 Spring-set D=1.6 L=27-22.7 yellow (4)  
909417 Spring-set D=1.7 L=27-22.7 red (4)  
909418 Spring-set D=1.8 L=27-22.7 blue (4)

## Serpent H-Q Shockabsorber oil

1670 Silicone shock-oil 20W  
1674 Silicone shock-oil 25W  
1671 Silicone shock-oil 30W  
1675 Silicone shock-oil 35W  
1672 Silicone shock-oil 40W  
1676 Silicone shock-oil 45W  
1673 Silicone shock-oil 50W

## Chassis & Radio plate

902140 Chassisplate 5mm 7075 alu  
902150 Radioplate carbon 2.5mm  
902145 Chassis stiffener carbon L  
902146 Chassis stiffener carbon R  
902155 Radioplate bracket  
902157 Roll-bar chrome

## Body mounts

808144 Bodymount universal  
902106 Bodymount plate front  
6123 Body-mounts short (2)  
6124 Body-mounts long (2)  
909365 Rear body-support set  
909366 T-bracket rear body support  
808152 Centering bushing threaded  
909342 Nylon arms short (2)  
909344 Pivot pins bodymount upper (2)  
909345 Pivot bushings rear bodymount (4)  
1601 Body clips (10)

## Front Section

902105 Bumper  
902163 X-bracket alu. fr-suspension std.  
902201 Bearing block front left  
902202 Bearing block front right  
902205 Suspension bracket front left  
902206 Suspension bracket front right  
902212 Spacer roll center 3mm (2)  
909262 Wishbones front upper left  
909263 Wishbones front upper right  
909205 Wishbones front lower left  
909206 Wishbones front lower right  
909211 Steeringblock left WOS  
909212 Steeringblock right WOS  
909264 Pivot pins front upper (2)  
808212 Pivot pins front lower (2)  
808214 Caster spacers (2)  
808340 Nylon cup 8.5mm  
808344 Adj.nut alu M10 (4)  
808346 Pivot balls steel 8.5mm (2)  
909215 Anti-roll bar levers + exc.  
909216 Anti-roll bar blade male  
909217 Anti-roll bar blade female  
9213 Pully / flange 24T  
9212 Inner driveshaft adaptors (2)  
909220 Driveshafts front (2)  
909222 Wheel-axles steel front (2)  
909228 Wheel-shim conical (4)  
909225 Front axle alu. with one ways  
1065 O-ring for alu front axle (10)  
9226 Lever alu quick-change (2)  
6337 Spring quick change system  
6361 Belt short 6mm

## Middle Section

902250 Middle shaft bracket  
902252 Middle shaft steel

909250 Pully adaptor alu. (2)  
909236 Pully / flange 16T  
909238 Pully / flange 18T  
909242 Pully / flange 22T  
909244 Pully / flange 24T  
909245 Pully / flange 25T  
6364 Drive-belt long 6mm  
901255 Belt-tensioner shaft and nut  
909248 Brake-pully adaptor alu.

## Rear Section

902307 Rear plate  
902301 Bearingblock rear left  
902302 Bearingblock rear right  
902303 Wishbone rear upper left adj  
902304 Wishbone rear upper right adj  
902305 Wishbone rear lower left  
902306 Wishbone rear lower right  
909311 Pivot pin rear upper (2)  
902308 Pivot pin rear lower 3.5mm (2)  
909315 Up-right (1)  
808312 Pivot ball 9mm with screws (2)  
909321 Driveshaft rear short (2)  
909322 Wheel-axles steel rear (2)  
909325 Quick-change levers alu rear (2)  
909326 Steel pins wheel-axles 2.5x21.8 (4)  
909330 Rear anti-roll bar set 3mm  
902138 Rod threaded L+R (2)  
1095 Shims nylon rear anti-roll bar (2)  
909347 Shocktower rear carbon  
909228 Wheel-axle washers conical (4)

## Brake-System

909350 Brake bracket  
9612 Ventilated brake-disk  
901356 Brake-plates steel (3)  
9611 Steel brake disks (2)  
901355 Brake pads black (4)  
909354 Disk brake cam alu hard anodised  
909356 Brake-cam / spring-set  
909360 Support pins brake 2.5x20 (2)  
909361 Chassis/brake positioning pins 3x16 (2)  
9618 Alu.collar brake pulley

## Transmission

909370 Solid axle with 50T pully  
909372 Pully 50T  
909373 Kevlar drive-belt 8mm

## 2-Speed Gearbox

902410 2-speed gearbox LC (no shaft incl)  
902430 2-speed axle 4WD 950  
902415 2-speed clutch shoes set LC  
902444 2-speed gear 44T (2ND) LC  
902445 2-speed gear 45T (2ND) LC  
902446 2-speed gear 46T (2ND) LC  
902447 2-speed gear 47T (1ST) LC  
902448 2-speed gear 48T (1ST) LC  
902449 2-speed gear 49T (1ST) LC  
6626 Springs / screws 2-speed  
902411 Drive-flange alu with owb LC  
902413 Clutch bell alu LC  
902412 Adaptor 2-speed LC  
902420 Needle steel 5X5 (2)

## Clutch System

909510 Centax II clutch-set (excl. Flywheel)  
909512 Centax II clutch-housing universal  
909555 Centax gear-pinion alu. 15T  
909556 Centax gear-pinion alu. 16T  
909557 Centax gear-pinion alu. 17T  
909558 Centax gear-pinion alu. 18T  
909559 Centax gear-pinion alu. 19T  
909560 Centax gear-pinion alu. 20T  
6504 Conus flywheel (3)  
6582 Centax clutch-nut  
6585 Centax thrust washer  
6584 Centax spring cup  
6583 Centax pre-load adjusting nut

909514 Centax II bearing spacer 5x7  
 909516 Centax II spacer thrustbearing  
 6579 Centax flywheel 38mm  
 909518 Centax II coil spring 1.8  
 909515 Centax II centrifugal shoes (3)  
 6587XP Centax clutch shoe XP  
 6599 Centax shim-set 7x13 (10)  
 1093 Centax 5x6.8 shim-set 0.1 (2) 0.3 (1)  
 1377 Centax II thrust-bearing 5x10

**Engine Mounts**

902340 Engine mounts M21  
 6571 Engine mounting screws/washers  
 1599 Exhaust mounting wire

**Wheels**

909812 Quick-change wheels front yellow (2)  
 909842 Quick-change wheels rear yellow (2)  
 909851 Tire savers 1/8 (10)

**Optionals**

1015 Engine mount screws Torx / washers (4)  
 1017 Engine mount screws hex-flanged (4)  
 1360 Ballbearing 6x13 PHQ (2)  
 1362 Ballbearing 12x21 PHQ (2)  
 6123A Body post alu short (2)  
 9605 Brake disc steel ultra cool  
 808251 Middle shaft bracket alu purple  
 901231 Rocker front left  
 901232 Rocker front right  
 901235 Tie-rod 54mm (2)  
 901240 Rockers front lineair complete set  
 901241 Rockers rear lineair complete set  
 902207 Bracket front upper L +R alu  
 902156 Radioplate bracket alu  
 902160 Push-rod set front suspension  
 902161 Rocker shafts PRS (2)  
 902162 Bushing rockers PRS (2)  
 902207 Suspension brackets alu FR UP L+R  
 902210 Spacer roll center 0.8mm (2)  
 902211 Spacer roll center 1.5mm (2)  
 909128 Shocktower carbon FR MSP  
 909218 Anti-rollbar levers alu front (2)  
 909223 Wheelaxle front WOS + alu spacer (2)  
 909226 Front axle alu + Pro bearings  
 909323 Wheel-axle set rear light / WO (2)  
 909328 Wheeladaptors set alu fixed F+R  
 909329 Wheelflange alu f+r (2+2)  
 909335 Rear anti-roll bar set adjustable  
 909336 Rear anti-roll bar ball-rod  
 909395 Pulley solid axle 51T  
 909396 Bearing eccentric (2)  
 909410 Shock-housing alu PTFE coated front (2)  
 909411 Shock-housing alu PTFE coated rear (2)  
 909445 Piston set key fixed & adjustable (2)  
 909513 Centax II clutch-housing universal Light  
 909575 Centax gear-pinion steel 15T  
 909576 Centax gear-pinion steel 16T  
 909577 Centax gear-pinion steel 17T  
 909578 Centax gear-pinion steel 18T  
 909579 Centax gear-pinion steel 19T  
 909580 Centax gear-pinion steel 20T  
 909422 Pre-tension spring cup 1/8 alu (2)  
 909423 Pre-tension spring-set (3 sets)

**Bodies and wings**

1754 Body Group C Porsche 962 MS EV2  
 1750 Body VDS Lola MS  
 1751 Body Mc Laren GT1 MS  
 1753 Body Porsche GT1 MS  
 1601 Bodyclips (10)  
 1722 Trim-strip + nylon mounts  
 1723 Bodywashers Silicone (5)  
 1724 Body-stiffener Lexan (2)

1725 Side-wing support Foam (2)  
 1727 Body Inserts Lexan  
 1721 Wing 26 cm Group-C  
 1791 Steel wing wire 3mm

**Tools**

1016 Torx tool  
 1460 Camber gauge  
 909590 Gear pinion wrench  
 909592 Centax clutch housing gripper  
 902310 Mounting-tool pivotball

**Accessories**

1400G Powerstart compact starterbox grey  
 1428 Brackets Serpent 950  
 1395 Glow-plug starter 1300 mAh /w. cable  
 1396 Glowtronic; electronic glowplug igniter  
 3400 Break-in bench model-engines  
 1680 One way lube 25ml  
 1690 Cleaning putty 200 gram

**Fastening Material**

901185 Screw set alu M4X10 (25)  
 901186 Screw set alu M4X12 (60)  
 1646 Steel balls 6mm M3 (4)  
 1647 Steel balls 6mm (4)  
 1650 Balls 6mm/setscrews hex(4)  
 1660 Ball-joints 6mm (20)  
 1201 E-clip 1,9 (10) R1  
 1202 E-clip 2,3 (10) R2  
 1203 E-clip 3,2 (10) R3  
 1204 E-clip 4.0 (10) R4  
 1205 E-clip 5.0 (10) R5  
 1207 E-clip 7.0 (10) R7  
 1208 Cir-clip 10X1 (10) T10  
 1209 G-clip 14X1 (10) S14  
 1212 Screw RH PH 2.9X9.5 (10) A5  
 1213 Screw RH PH 2.9X13 (10) A6  
 1214 Screw RH PH 2.9X16 (10) A7  
 1215 Screw RH PH 2.9X19 (10) A8  
 1216 Screw RH PH 2.9X25 (10) A10  
 1217 Screw RH PH 3.5X9.5 (10) A12  
 1218 Screw RH PH 3.5X13 (10) A13  
 1219 Screw RH PH 3.5X16 (10) A14  
 1220 Screw RH PH 3.5X19 (10) A15  
 1225 Screw RH M2X6 (10) C2  
 1226 Screw RH M2X6 (10) C5  
 1227 Screw RH PH M3X8 (10) D11  
 1228 Screw RH PH M3X12 (10) D13  
 1235 Screw CH allen M3X6 (10) F10  
 1236 Screw CH allen M3X10 (10) F12  
 1237 Screw CH allen M3X12 (10) F13  
 1238 Screw CH allen M3X16 (10) F14  
 1239 Screw RH allen M3X6 (10) E10  
 1240 Screw RH allen M3X8 (10) E11  
 1241 Screw RH allen M3X12 (10) E12  
 1242 Screw RH allen M3X14 (10) E13  
 1243 Screw RH allen M3X16 (10) E14  
 1244 Screw RH allen M4X6 (10) E17  
 1245 Screw RH allen M4X8 (10) E18  
 1246 Screw RH allen M4X16 (10) E21  
 1250 Grubscrew M3X4 (10) J9  
 1251 Grubscrew M3X6 (10) J10  
 1252 Grubscrew M4X10 (10) J19  
 1255 Grubscrew M3X10 (10) H12  
 1256 Grubscrew M3X12 (10) H13  
 1257 Grubscrew M4X4 (10) H16  
 1258 Grubscrew M4X6 (10) H17  
 1259 Grubscrew M5X5 (10) H24  
 1260 Grubscrew M5X6 (10) H25  
 1261 Grubscrew M4X10 (10) H17  
 1268 Screw CSH PH M3X6 (10) G10  
 1269 Screw CSH PH M3X16 (10) G14  
 1270 Screw CSH PH M3X8 (10) G11

1271 Screw CSH PH M4X8 (10) G18  
 1272 Screw CSH PH M4X10 (10) G19  
 1273 Screw CSH PH M4X12 (10) G20  
 1274 Screw CSH PH M4X16 (10) G21  
 1275 Screw CSH PH M5X12 (10) G27  
 1278 Screw CSH ALLEN M4X20 (10)  
 1279 Screw CSH ALLEN M4X25 (10)  
 1280 Screw CSH PH 2,2X6,5 (10) B2  
 1281 Screw CSH PH 2,9X9,5 (10) B5  
 1282 Screw CSH PH 3,5X9,5 (10) B12  
 1283 Screw CSH PH 3,5X13 (10) B13  
 1284 Screw CSH PH 3,5X16 (10) B14  
 1285 Screw CSH PH 4,2X13 (10) B20  
 1290 Washer 3.2X7 (10) N3  
 1291 Washer 2.5X6 (10) N4  
 1292 Spring washer 6,2X14X0,9  
 1293 Spring washer 7,2X14X0,8  
 1295 Lock washer 3.2x8 (10) o3  
 1297 Nut nylock M3 (10) L3  
 1298 Nut nylock M4 (10) L4

**Merchandising**

1999 NovaMega cap grey Deluxe  
 1990 Serpent cap grey Deluxe  
 1858 Serpent track banner nylon 140x80cm  
 1859 Serpent circuit track decal 140x80cm  
 1980 Kit-bag Serpent black-grey  
 Serpent T-shirt (check website)  
 Serpent sweater (check website)  
 Serpent fleece (check website)  
 Serpent jackets (check website)

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*[www.myTSN.com/Serpent950](http://www.myTSN.com/Serpent950)*

**SERPENT**  
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