



# Cobra **GT** RTR

*1/8 scale Ready To Race Gas Powered GT*

## INSTRUCTION MANUAL & REFERENCE GUIDE

# Cobra GT RTR



Powered by





## Introduction

Thank you very much for buying this Serpent rc car. You are now member of a large following of Serpent fans worldwide. This Serpent car will bring you many hours and weekends of racing excitement.

Serpent started as rc racing company in 1980, and has developed many modelcars since. This wealth of experience and know how is used in our todays cars and that shows!

The Serpent Cobra GT RTR is the best entry in the world of rc racing. Affordable and a very good basis to start your racing carreer. The Serpent Cobra GT RTR, is based on the high-end competition version of the Cobra GT and shares geometry and many parts. Still its easy to use, assemble, and set up. The RTR Cobra is fully upgradable to high end competition spec. The details can be found in our website. 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 Cobra GT RTR offers state of the art specifications and leads the way in 1/8 scale chassis design, using all the knowledge our designers have gathered from racing GT cars for over 15 years, into this design too. Continuously pushing the performance envelope.

Designed, tested and raced by Billy Easton, USA. World Champion.

This manual contains a number of steps you need to follow to operate the Serpent cars in the right way. This manual also contains a quick-start section, a partslist and exploded views, and a FAQ section. A full assembly manual can be found online in the Serpent.com website. So read this manual with great attention before racing this car. For your own safety as well as for others, and to ensure you can enjoy your Serpent car a long time, even if you are an experienced user. Serpent is not only about the car itself. Serpent as company, and the worldwide network or distributors and dealers are here to help you out.

The Serpent website, social media and forum are available for assistance and additional information as well.

*Enjoy your Serpent, the racing experience!*

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## 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 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 speedo during and immediately after use, as these parts may be very hot. We advise to use protective handgloves.
- 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. 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.
- 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.

## Safety matters

All instructions in this manual must be followed to ensure safe use of the car. This model is not intended for use by children under 14 years .

### Important pre-cautions

- Only run the car in designated areas or areas with very few people, so no-one can get hurt.
- The car has a lot of power and the turning parts on the car can cause damage, also some parts of the car like transmission and motorparts can become very hot. So wear protective clothing both as driver and helper and be careful when picking up the car.
- Do not operate the car under dark conditions, as both you and others may not see the car properly and can get hurt, due to lack of car control.
- Use good common sense while operating the car so you can fully enjoy your car.

### Battery and battery-charging

- The battery and battery-charger are not included with this model. We advise to use good quality NimH or Lipo rechargeable battery-packs with 4000 mA or more. Check carefully to buy batteries with the correct connector for the speedcontroller, or also purchase and mount other fitting ones.
- Use proper battery-charger specifically designed for that type batteries and follow the instructions of the battery supplier and the charger correctly.
- Keep the battery and charger always in dry places only and never leave un-attended during charging.
- When the batteries are at their end of life, dispose them at a recycling-place, check [www.call2recycle.org](http://www.call2recycle.org) for more info.

## Quick-start

The quick-start section is not a replacement for the full instructions. To be able to use the model to its best take the time to read the full manual.

1. Read the manual and safety pre-cautions ( page 3)
2. Buy and install the batteries in the transmitter ( see Transmitter manual)
3. Install battery packs in the model, make sure the speedo is switched off, connect the cables (avoid reversed polarity) and securely fasten the battery-pack.
4. Turn on the transmitter (see Transmitter manual). Always turn on the transmitter first before to switch on the car and only turn off the transmitter after you switched off the car.
5. Check servo operation. Check that the servo works correctly and check that the car runs straight in neutral position, trim as needed. Perform a range test with the radio system
6. Personalise the body of your car by applying more decals if required.
7. Drive your modelcar.
8. Maintain your modelcar (page 9)

# Equipment



Included with your model

- Serpent modelcar, factory assembled and set-up
- Dragon-RC DTS-1 transmitter (as shown or similar)
- Novarossi 3.5cc (.21) 3 port pullstart engine
- Dragon-RC polished Inline tuned pipe-system
- Dragon-RC racing tyres, pre-mounts
- Dragon-Rc digital servo MG
- Dragon-RC repainted and pre-cut bodyshell



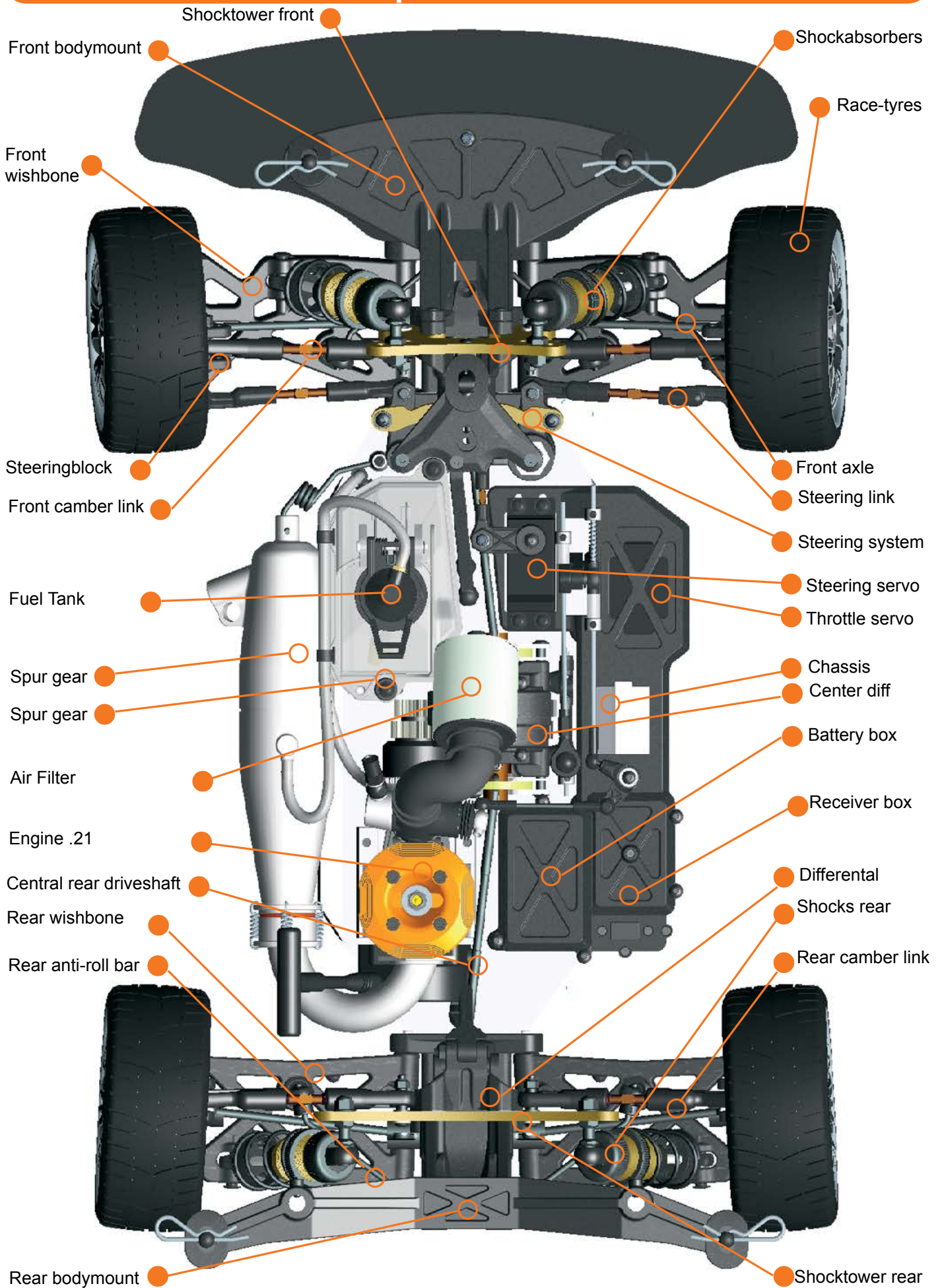
## Required for your model

- Multi Charger; to charge transmitter battery and car battery
- Receiver pack RX hump-pack 1600 mA
- Glowdriver
- Fuel / Fuelbottle
- Safety glasses and gloves
- Battery AA x 4 to operate the transmitter
- Tools: selection of allen tools and screw- drivers
- Degreaser

## Recommended materials

- Hobby knife
- Side cutter and nose plier
- Cleaning brush and towel
- Camber gauge
- Cleaning gum
- Thin bearing oil
- Transmission grease
- CA glue

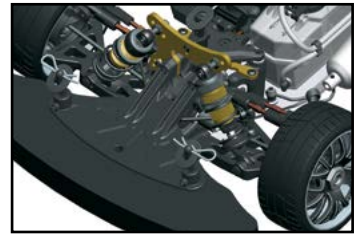
# Model specs/overview



# Basic tuning

- **Springs:** by using a softer spring you will have more sag, more chassis roll/lean, more dive and a less responsive car this might be better on low-grip surfaces; by using a harder spring you have less sag, less body lean, less dive and a more responsive car. What to apply depends on driving style and grip-level surface. This is more suitable on high-grip surfaces.
- **Shock-angle:** the angle at which the shocks are mounted create a different suspension feel; the more vertical, the harder it feels, the more horizontal, the softer it feels.
- **Oil:** the viscosity of the shock-oil defines the dampening of the shock absorber. Thinner oil will be softer, with slower response, thicker oil will be harder dampening with faster response. The dampening can also be fine-tuned by fitting other pistons with more or less holes, which is an optional.
- **Differential:** you can make the gear differential harder or softer by using a different oil viscosity. Lighter oil will create a looser diff which increases rear traction on acceleration, but also more understeer, and a harder differential will decrease rear traction on acceleration, but also more on-throttle steering
- **Front anti-roll bar:** by using a softer anti-roll bar you will have more sag, more chassis roll/lean, more dive and a less responsive car. But you will have more steering once you have entered the corner
- **Rear anti-roll bar:** by using a softer anti-roll bar you will have more sag, more chassis roll/lean, more dive and a less responsive car. But you will have more rear traction and a more stable car
- **Toe adjustment:** Front: adjusted with the track-rods, make longer or shorter. More toe-in will create more steering, but less stability; toe-out will create a more stable car, with less steering.
- **Toe adjustment:** Rear: adjusted with suspension blocks (optional). More toe-in will create more traction, more stability, but less speed. Less toe in will create a less stable car, with less traction but higher speed.
- **Front camber:** using more negative camber in the front will give you more steering but also increases possible traction roll.
- **Rear camber:** using more negative camber in the rear will create more grip in the rear meaning also creating more understeer.
- **Front caster:** use optional caster blocks to change caster, more caster will create more steering but also increases possible traction roll. And less caster will create less steering but also decreases possible traction roll.
- **Wheel-base length:** a longer car will be more stable and react slower, a shorter car will be more nervous and more direct.
- **Gear-ratio:** spur and pinion: for correct gearmesh keep a piece of notebook paper at hand, to put between the spur and pinion for correct mesh.
- **Ride-height:** you can change the ride-height of the car, by applying more or less pre-load on the springs, turn the pre-load adjusters to set the desired height and keep left and right the same.

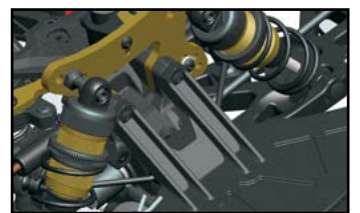
## Springs



## Shock angle



## Front anti-roll bar



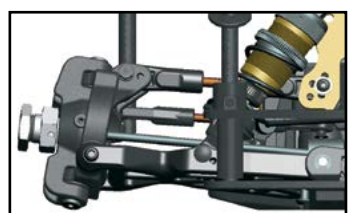
## Rear anti-roll bar



## Ackerman



## Front camber



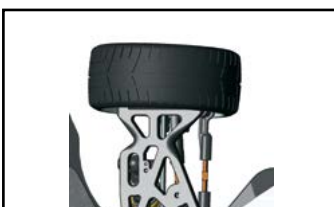
## Rear camber



## Ride Height



## Front Toe-out



## Rear Toe-in



## Gear-ratio







# Maintenance

## Shockabsorbers

- Check for smooth operation of the shockabsorbers, and check for airbubbles by pushing the shock up and down fast after removal of the spring. Clean the shockabsorbers as needed and refill with fresh 100% pure silicone oil as needed.

## Tyres

- Replace tyres if case worn or damaged, and clean the surface in case dirty to obtain better grip.

## Wheel-axes and driveshafts

- Remove the wheels, and check the wheel-axes, driveshafts and adaptors for dirt, play and pins. Clean thoroughly as needed and lubricate the touching parts with a small amount of grease or oil.

## Differentials

- Check the differentials and gears for wear and dirt and clean as needed. Check the functioning of the diff by turning the wheels in opposite direction and feel if still smooth or 'gritty'. In case of gritty feel, the silicone oil may need replacement.

The full assembly manual of this model is available online; check on [www.serpent.com](http://www.serpent.com) and type your modelnumber, partnumber, or select your car from the car-page; go to the download section in the menu and download the full manual.

## Shockabsorbers



## Tyres



## Wheel-axes and driveshafts



## Differentials



# Partslist and Optionals list

600042	<b>Description</b> Cobra GT GP RTR 1/8	600121	Brake levers / adjusters
		600127	Throttle / steering lever set
		600131	Balljoint set (19)
	<b>Manual &amp; Decals</b>	600157	Collar double (2)
600329	Decal sheet S811 black/white (2)	600207	Rod steering servo 26mm
600332	Decal sheet S811 chrome (2)	600333	Brake / Throttle links (2)
600610	Decal sheet S811 GT black and white (2)	600358	Radiobox V2 (3)
	<b>Ball Bearings</b>	600359	Servo lever / mounts V2 (30)
1311	Ballbearing 5x8x2 (2)	600360	Throttle lever shaft (1)
1312	Ballbearing 5x8 flanged SS (2)	600361	Throttle balls (2+1)
1315	Ballbearing 5x10x4 SS (2)	600362	Collar set V2 (3)
1321	Ballbearing 6x10x3 SS (2)	600363	Throttle rod V2 (1)
1321	Ballbearing 6x10x3 SS (2)	600500	Servo spacers (8)
1337	Ballbearing 15x21x4 SS (2)	804181	Throttle spring (2)
1393	Ballbearing 13X19X4 SS (2)		<b>Radio Installation / Battery option</b>
1394	Ballbearing 8x14x4 flanged SS (2)	600272	Steering servo rod titanium
1395	Ballbearing 8x19x6 SS (2)	600290	Servo lever steering 23T alu
1396	Ballbearing 8x16x5 SS (2)	600291	Servo lever steering 24T alu
600616	Bearingset 811 V2 (26)	600292	Servo lever steering 25T alu
600617	Bearingset 811 V2 small (12)	600293	Servo lever throttle 23T alu
	<b>Radio Installation / Battery</b>	600294	Servo lever throttle 24T alu
1606	Antenna rod black (2)	600295	Servo lever throttle 25T alu
1639	Collar alu + setscrew (4)		

**Servo Saver & Steering**

600105 Servosaver spring  
 600109 O-ring servosaver nut (4)  
 600128 Servo saver set nylon (3)  
 600131 Balljoint set (19)  
 600167 Steeringrack mount  
 600169 Servosaver adjust nut  
 600170 Servosaver shaft outer  
 600207 Rod steering servo 26mm  
 600554 Pivot ball steering short 811-S (2)  
 600555 Pivot ball steering long 811-S (4)  
 600556 Servo saver post 811-S (2)  
 600557 Steeringrack alu 811-S  
 600558 Topdeck front 811-S

**Servo Saver & Steering option**

600153 Topdeck front carbon  
 600171 Steeringrack option 1  
 600172 Steeringrack option 2  
 600173 Steeringrack option 3  
 600272 Steering servo rod titanium  
 600278 Servo saver post alu (2)  
 600296 Servosaver alu coated (3)  
 600330 Servo saver spring hard

**Fuel tank and parts**

1493 Prussure nipple m3 (4)  
 1494 Silicone tubing 2x5x50 white  
 600115 Tank mounting rubber (4)  
 600116 O-ring tank (4)  
 600117 Tank cap seal silicone (2)  
 600123 Clip /plug set for fuel tube (6)  
 600335 Post fuel tank (2)  
 600411 Tank 150cc with filter

**Shock Absorbers**

600111 Shock membrane (10)  
 600112 O-ring shock bottom (10)  
 600113 O-ring shock nut (10)  
 600118 Shock part frame nylon (10)  
 600145 Shock pistons (4x4)  
 600158 Adjust nut shock / oring (2)  
 600180 Washer shock shaft (4)  
 600184 Pivotball 6.75 double (4)  
 600234 Shock cartridge stepped (4)  
 600235 Shock cartridge (4)  
 600319 Shock revision set (20)  
 600568 Shock mount 811-S (2)  
 600573 Shock top 811-S (2)  
 600574 Shock top nut 811-S (2)  
 600592 Shock shaft 811GT (2)  
 600689 Shock body alu 811GT RTR (2)

**Shock Absorbers option**

600287 Shock spring support alu (4)  
 600357 Membrane webbed silicone (4)  
 600595 Shockset fr/rr 811GT (2)  
 600597 Spring Fr/Rr Red 811GT 18lbs (2)  
 600598 Spring Fr/Rr Purple 811GT 21lbs (2)  
 600599 Spring Fr/Rr Yellow 811GT 29lbs (2)  
 600600 Spring Fr/Rr White 811GT 31.5lbs (2)  
 600601 Spring Fr/Rr Silver 811GT 34.5lbs (2)  
 600602 Spring Fr/Rr Black 811GT 37lbs (2)

**Chassis / Guards**

600122 Brace front / rear nylon  
 600581 Body post front 811GT (3)  
 600582 Bumper 811GT  
 600583 Bodymount rear 811GT  
 600614 Foam bumper 811GT  
 600692 Chassis alu 811GT RTR

**Chassis / Guards Optional**

600288 Chassis brace front alu  
 600289 Chassis brace rear alu  
 600300 Post wingmount alu (2)  
 600585 Chassis alu 811GT

**Front Section**

600126 Washer/nut nylon M3 (12+15)  
 600129 Diff case front set  
 600131 Balljoint set (19)  
 600135 Wishbone front L+R  
 600136 C-Hub 10 L+R  
 600167 Steeringrack mount  
 600183 Bushing suspensionarm (4)  
 600186 Track rod M4x51 (2)  
 600187 Track rod M5x46 (2)  
 600193 Pivotball threaded antirollbar (2)  
 600197 Driveshaft insert (2)  
 600222 Wheelnut 17mm (4)  
 600223 Wheelhexagon (4)  
 600365 Spacers 1.25mm + 2.5mm wheelbase (4+2)  
 600481 Steeringblock L+R V2  
 600503 Steeringblock-wheelaxle set 811 V2  
 600532 Gear coupler 811-S  
 600533 Driveshaft center FR 811-S  
 600535 Driveshaft FR 811-S (2)  
 600537 Wheelaxle FR 811-S (2)  
 600539 Pin steeringblock 811-S (4)  
 600543 Hinge pin 811-S (2)  
 600544 Antirollbar nut 811-S (4)  
 600545 Antirollbar bushing 811-S (4)  
 600546 Pivot ball antiroll bar 811-S (2)  
 600548 Suspension bracket FR-FR 811-S  
 600549 Suspension bracket FR-RR 811-S  
 600553 Pivot ball 7.5 double 811-S (4)  
 600554 Pivot ball steering short 811-S (2)  
 600558 Topdeck front 811-S  
 600690 Shock tower fr alu GT RTR  
 903343 Antirollbar Spacer 3mm (2)

**Front Section Optional**

600102 Driveshaft 98mm (2)  
 600153 Topdeck front carbon  
 600176 Suspension bracket alu FR RR std  
 600177 Suspension bracket alu FR FR std  
 600240 Antiroll bar front 2.3mm  
 600241 Antiroll bar front 2.5mm  
 600242 Antiroll bar front 2.7mm  
 600263 Washer M3 alu (12)  
 600297 Lightweight wheel nut 17mm (4)  
 600303 C-hub 10 L+R alu  
 600304 C-hub 12 L+R alu  
 600336 Antiroll bar front 1.8mm  
 600337 Antiroll bar front 2.0mm  
 600381 Gear coupler rubber boot (2)  
 600472 Gear coupler V3  
 600473 Gear coupler sleeve (2)  
 600497 Steeringblock L+R V2 alu  
 600611 Steeringblock Alu 0-Deg L+R  
 600612 Shocktower carbon fr 811GT

**Middle Section**

600100 Exhaust mounting wire (2)  
 600119 Center diff holder parts (3)  
 600131 Balljoint set (19)  
 600166 Exhaust mount alu  
 600197 Driveshaft insert (2)  
 600203 Brake plate (4)  
 600236 Airfilter boot  
 600243 Airfilter + foam  
 600340 Airfilter foam set inner-outer (6)

600341 Airfilter foam set inner-outer (10)  
 600369 Brake plate thick (2)  
 600524 Brake disk 811-S (2)  
 600525 Brake lever insert 811-S (2)  
 600526 Brake piston 811-S (2)  
 600527 Brake excenter 811-S (2)  
 600528 Brake plate mount set 811-S (2)  
 600532 Gear coupler 811-S  
 600569 Engine mount 811-S (2)  
 600615 2-speed gear cover 811GT  
 600619 Engine mount spacer 811-RTR (2)

#### Middle Section Option

600148 Diskbrake front fibreglass  
 600149 Diskbrake rear fibreglass  
 600281 Brake piston /spring ( 2/2/2)  
 600286 Center diff holder alu (2)  
 600345 Brake set pro

#### Rear Section

600126 Washer/nut nylon M3 (12+15)  
 600130 Diff case rear set  
 600131 Balljoint set (19)  
 600188 Track rod M5x53 (2)  
 600193 Pivotball threaded antirollbar (2)  
 600222 Wheelnut 17mm (4)  
 600365 Spacers 1,25mm + 2,5mm for wheelbase (4+2)  
 600499 Pivotball double straight (3)  
 600534 Driveshaft center RR 811-S  
 600543 Hinge pin 811-S (2)  
 600544 Antirollbar nut 811-S (4)  
 600545 Antirollbar bushing 811-S (4)  
 600546 Pivot ball antiroll bar 811-S (2)  
 600547 Hinge pin RR outer 811-S (2)  
 600550 Suspension bracket RR-FR 811-S  
 600551 Suspension bracket RR-RR 811-S  
 600552 Transmission brace mount RR 811-S  
 600553 Pivot ball 7.5 double 811-S (4)  
 600584 Wheelhexacon 811GT (2)  
 600633 Wishbone rear L+R 811 2.0  
 600634 Upright L+R 811 2.0  
 600679 Driveshaft RR 811 2.0 S (2)  
 600680 Wheelaxle RR 811 2.0 S (2)  
 600691 Shock tower rr alu GT RTR  
 903343 Antirollbar Spacer 3mm (2)

#### Rear Section option

600103 Driveshaft center front  
 600155 Suspension bracket RR RR 3  
 600156 Suspension bracket RR FR 2  
 600237 Antiroll bar rear 2.3mm  
 600238 Antiroll bar rear 2.5mm  
 600239 Antiroll bar rear 2.7mm  
 600263 Washer M3 alu (12)  
 600265 Suspension bracket RR FR 2.5 - 4.5  
 600266 Suspension bracket RR RR HR 3  
 600267 Suspension bracket RR RR LR 3  
 600297 Lightweight wheel nut 17mm (4)  
 600338 Antiroll bar rear 1.8mm  
 600339 Antiroll bar rear 2.0mm  
 600381 Gear coupler rubber boot (2)  
 600434 Antiroll bar rear 2.4mm  
 600472 Gear coupler V3  
 600473 Gear coupler sleeve (2)  
 600613 Shocktower carbon rr 811GT  
 600661 Upright L+R 811 2.0 alu

#### Transmission

6626 2-speed spring (2)  
 600590 Outdrives 2-speed center 811GT (2)  
 600593 Shaft 2-speed 811GT

600594 Adaptor 2-speed 811GT  
 902416 Shoe-set 2-speed lc  
 903362 Gearbox housing SL8  
 903363 Gearbox drive flange SL8  
 903365 2-Speed gearbox spacer (3)  
 903372 2-Speed gear 49T SL8  
 903375 2-Speed gear 45T SL8  
 909556 Centax gear-pinion alu. 16t  
 909559 Centax gear-pinion alu. 19t

#### Transmission Optionals

903224 Gear-pinion-set centax-2  
 903370 2-Speed gear set SL8 (6)  
 903371 2-Speed gear 48T SL8  
 903373 2-Speed gear 50T SL8  
 903374 2-Speed gear 44T SL8  
 903376 2-Speed gear 46T SL8  
 909555 Centax gear-pinion alu. 15t  
 909557 Centax gear-pinion alu. 17t  
 909558 Centax gear-pinion alu. 18t  
 909560 Centax gear-pinion alu. 20t

#### Differential

600147 Diff gasket (3)  
 600205 Shim 13x16x0.2 (10)  
 600209 Diff pin 10T (2)  
 600210 Diff pin outdrive (2)  
 600354 Shim 14x15.5x 0.65 (4)  
 600356 Shim 14x15.5x0.2 (10)  
 600421 Oring centerdiff V2 (10)  
 600425 Diff housing V2  
 600495 Diff pinion 13T  
 600562 Diff outdrive FR-RR 811-S (2)  
 600623 Dif gear 44T 811E-S  
 600627 Diff gear 10T + 20T (4+2) V2

#### Differential Optional

600501 Complete FR/RR 44T diff

#### Clutch

600206 Clutch nut (2)  
 600261 Socket screw M3x8 (6)  
 600563 Flywheel 3 pin 811-S  
 600564 Clutch shoe carbon 811-S (3)  
 600565 Clutch spring 0.9mm 811-S (3)  
 600566 Clutch nut 3 pin 811-S  
 600693 Clutchbell 2-speed 811GT RTR  
 909519 shim centax 5x08x0.1(2)x0.3(1)  
 909519 shim centax 5x8x0.1(2)x0.3(1)

#### Clutch Optional

600578 Clutch spring 1.0mm 811-S (3)  
 600579 Clutch spring 1.1mm 811-S (3)  
 600175 Clutchshoe alu (4)  
 600228 Clutch shoe carbon (4)  
 600262 Clutch screw (4)  
 600355 Clutch shoe set Alu / Carbon (2+2)  
 600586 Clutchbell 2-speed 811GT  
 600587 Crankshaft extension 811GT  
 600589 Flywheel 811GT  
 600596 Clutch set 811GT  
 909519 shim centax 5x08x0.1(2)x0.3(1)

#### Body

1667 Body-clip medium (10)  
 170311 Body 1/8 Cobra GT /RTR pre painted  
 600581 Body post front 811GT (3)  
 600583 Bodymount rear 811GT

## Hardware

110101	Screw allen countersunk m4x8 (10)	110171	Screw ph roundhead widethread 2.5x6 (10)
110102	Screw allen countersunk m4x10 (10)	110172	Screw allen roundhead flanged M3X6 (10)
110103	Screw allen countersunk m4x16 (10)	110173	Screw ph countersunk widethread 2.5x12 (10)
110104	Screw allen countersunk m3x8 (10)	110174	Screw allen countersunk M4x6 (10)
110105	Screw allen countersunk m4x12 (10)	110175	Screw allen cilinderhead M3x40 (10)
110106	Screw allen flanged roundhead m5x12 (10)	110176	Screw allen cilinderhead M3x18 (10)
110107	Screw allen cilinderhead m3x16 (10)	110177	Screw allen roundhead M4x12 (10)
110108	Screw allen roundhead m3x6 (10)	110178	Screw allen cilinderhead M3x14 (10)
110109	Screw allen roundhead m3x10 (10)	110179	Screw allen roundhead M2.5x8 (10)
110110	Screw allen roundhead m3x16 (10)	110180	Setscrew allen M5x10 (10)
110111	Screw allen roundhead m3x14 (10)	110181	Screw M5x10 + Nut nylon black (4+4)
110112	Screw allen roundhead m3x12 (10)	110182	Screw allen roundhead M2x4 (10)
110113	Screw allen roundhead m4x8 (10)	110183	Screw allen countersunk M3x10 (10)
110114	Setscrew allen m3x8 (10)	110184	Screw allen countersunk M3x14 (10)
110115	Setscrew allen m3x4 (10)	110185	Screw allen cilinderhead M3x30 (10)
110116	Setscrew allen m3x3 (10)	110186	Screw allen cilinderhead M3x35 (10)
110117	Setscrew allen m3x12 (10)	110187	Setscrew allen M3x16 (10)
110118	Setscrew allen m4x4 (10)	110200	Pin 2.5x8 (10)
110119	Setscrew allen m4x6 (10)	110201	Pin 3x12 (10)
110120	Setscrew allen m4x10 (10)	110202	Pin 5x5 (10)
110121	Setscrew allen m5x6 (10)	110203	Pin 3x14 (10)
110122	Screw allen countersunk m3x6 (10)	110204	Pin 3x20 (10)
110123	Screw philips roundhead 3.5x13 (10)	110205	Pin 3x22 (10)
110124	Screw allen roundhead m3x8 (10)	110206	Pin 2.5x22 (10)
110125	Screw allen countersunk m3x20 (10)	110207	Pin 2.5x12 (10)
110126	Screw allen countersunk m2.5x12 (10)	110208	Pin nra 2x9.8 (4)
110127	Screw allen countersunk m3x12 (10)	110209	Pin nra 2x18 (4)
110128	Screw allen roundhead m3x5 (10)	110210	Pin 3x13 (10)
110129	Screw allen cilinderhead m3x10 (10)	110211	Pin 2.5x13 (10)
110130	Screw allen roundhead m2.5x6 (10)	110212	Pin 2.5x17 (10)
110131	Screw allen roundhead m2.5x10 (10)	110213	Pin 2.5x10 (10)
110132	Screw allen countersunk m3x16 (10)	110214	Pin 3x15 (10)
110133	Screw philipshead countersunk 2.5x8 wide (10)	110215	Pin 2x12 (10)
110134	Screw philipshead countersunk 2.5x10 wide (10)	110216	Pin 2.5x15 (10)
110135	Screw allen countersunk M2.5x10 (10)	110217	Pin 2x9 (10)
110136	Screw allen countersunk M2.5x8 (10)	110218	Pin 3x10 (10)
110137	Setscrew allen M3x6 (10)	110219	Pin 2x14 (10)
110138	Screw allen countersunk M4x14 (10)	110220	Pin 1.5x8 (10)
110139	Screw allen countersunk M3x40 (10)	110300	E-clip 2.3 (10)
110140	Screw allen roundhead M3x20 (10)	110301	E-clip 3.2 (10)
110141	Screw allen roundhead M3x22 (10)	110302	E-clip 4.0 (10)
110142	Screw allen roundhead M3x25 (10)	110303	E-clip 5.0 (10)
110143	Screw allen roundhead M4x18 (10)	110304	E-clip 7.0 (10)
110144	Screw allen roundhead M3x18 (10)	110305	Seeger clip 12x1.0 (10)
110145	Screw allen roundhead flanged M3x12 (10)	110306	E-clip 6.0 (10)
110146	Screw allen roundhead flanged M3x16 (10)	110307	E-clip 9.0 (10)
110147	Screw ph roundhead M2.5x5 (10)	110400	Shim 6.0x10x0.2(10)
110148	Setscrew allen M5x4 (10)	110401	Shim3.2x7x0.5 (10)
110149	Screw allen countersink M2x10 (10)	110402	Nut nylock M3 (10)
110150	Screw M6x12 nylon black (2)	110403	Nut nylock M4 (10)
110151	Screw allen cilinderhead M4x10 (10)	110404	Shim 6x8x0.3 (10)
110152	Screw allen cilinderhead M3x8 (10)	110405	Nut nylock M4 flanged (10)
110153	Screw allen roundhead M2.3x4(10)	110406	Nut nylock M2.2 (10)
110154	Setscrew allen M3x10 (10)	110407	Nut M3 (10)
110155	Setscrew allen M3x5 (10)	110408	Shim 3X5X0.3 (10)
110156	Screw allen countersunk M2.2x6 (10)	110409	Shim 3X5X1 (10)
110157	Screw allen countersunk M3x5 (10)	110410	Shim 3X5X2 (10)
110158	Screw allen countersunk M3x15 (10)	110411	Shim 3X5X4 (10)
110159	Screw allen countersunk M3x18 (10)	110412	Shim 3.5X8X1 (10)
110160	Screw allen cilinderhead M2.2x12 (10)	110413	Shim 3.5X12X0.2 (10)
110161	Screw allen cilinderhead M2x6 (10)	110414	Shim 3X6X0.1 (10)
110162	Setscrew allen M3x2.5 (10)	110415	Shim 3X6X0.5 (10)
110163	Setscrew allen M3x2 (10)	110416	Shim 3X6X0.8 (10)
110164	Screw allen roundhead M3x4 (10)	110417	Shim 3X6X3 (10)
110165	Screw allen cilinderhead M2x5 (10)	110418	Shim 4X8X0.1 (10)
110166	Screw allen countersunk M2.5x5 (10)	110419	Shim 4X9.5X1 (10)
110167	Screw allen roundhead flanged M3x18 (10)	110420	Shim 4X9.5X2(10)
110168	Screw allen roundhead flanged M3.5x10 (10)	110421	Shim 4X9.5X4(10)
110169	Screw allen roundhead flanged M4x10 (10)	110422	Shim 4X10X0.3 (10)
110170	Screw allen roundhead flanged M3x28 (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)  
 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)  
 110446 Shim 5x15x0.2 (10)  
 110447 Shim 3x7x7 (10)  
 110448 Shim 3x6x6 (10)  
 110449 Shim 3x6x1 (10)  
 110450 Nut M2 (10)  
 110451 Nylock nut M4 flanged alu (10)  
 110452 Nut M4 flanged knurled (10)

#### Merchandising

1891 Serpent medium promo decal 20x12.5 (2)  
 1892 Serpent windowshop decal 20x12.5 (2 sided)  
 1893 Serpent decal XL (30x60cm)  
 1895 Shopping-bag Serpent orange  
 1897 Towel Serpent large  
 1898 Lanyard Serpent orange  
 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)  
 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)  
 190188 T-shirt Serpent Splash orange (S)  
 190189 T-shirt Serpent Splash orange (M)  
 190190 T-shirt Serpent Splash orange (L)  
 190191 T-shirt Serpent Splash orange (XL)  
 190192 T-shirt Serpent Splash orange (XXL)  
 190193 T-shirt Serpent Splash orange (XXXL)  
 190194 T-shirt Serpent Splash black (S)  
 190195 T-shirt Serpent Splash black (M)  
 190196 T-shirt Serpent Splash black (L)  
 190197 T-shirt Serpent Splash black (XL)  
 190198 T-shirt Serpent Splash black (XXL)  
 190199 T-shirt Serpent Splash black (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) )  
 190215 T-shirt Serpent WC edition black (S)  
 190216 T-shirt Serpent WC edition black (M)  
 190217 T-shirt Serpent WC edition black (L)  
 190218 T-shirt Serpent WC edition black (XL)

190219 T-shirt Serpent WC edition black (XXL)  
 190220 T-shirt Serpent WC edition black (XXXL)

#### Pit equipment

Pit-caddy  
 190501 Tool-bag  
 190502 Pit-bag medium. 3 drawers  
 190504 Ballcup tool  
 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  
 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  
 190535 Exhaust spring / Caster clip remover  
 190536 Wrench-glowplug / Clutchnut - 10mm long  
 190537 Flywheel wrench tool wheel nut for 1/8 off road buggy  
 190538 Flywheel wrench  
 190539 Nut driver 4.5 x 100mm



#### Transmitter, reciver, servo, parts

210000 Transmitter set DTS-1 with display 2.4 Ghz  
 210001 Transmitter DTS-1 with display 2.4Ghz  
 210002 Receiver DRS-1 on 2.4Ghz  
 210003 Servo digital 0.19s/10.5kg MG  
 210005 Servo case for #210003  
 210007 Servo gear set for #210003

#### Engine, pipe

212001 Pullstart engine ,21  
 212002 Pipeset .21

#### Bodies and accessories

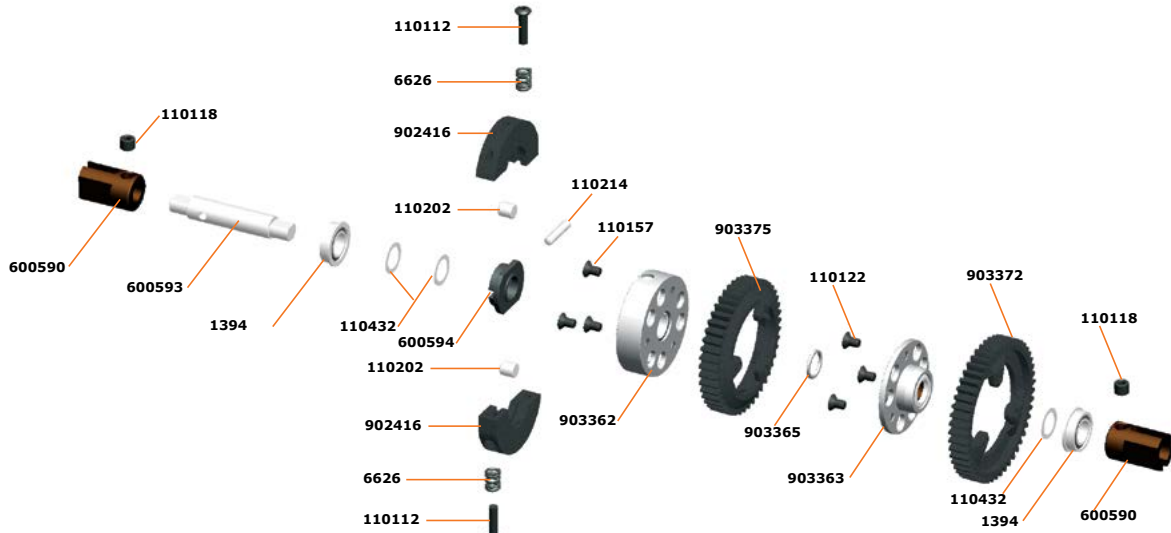
213016 Body 1/8 GT clear  
 213017 Body 1/8 GT semi painted red  
 213018 Body 1/8 GT semi painted blue  
 213019 Body 1/8 GT semi painted green

#### Tyres rubber onroad and wheels

215016 1/8 GT tyre medium mounted white rim (2)  
 215017 1/8 GT tyre medium mounted black rim (2)  
 215018 1/8 GT tyre soft mounted white rim (2)  
 215019 1/8 GT tyre soft mounted black rim (2)  
 215020 1/8 GT tyre super soft mounted white rim (2)  
 215021 1/8 GT tyre super soft mounted black rim (2)

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# GEARBOX ASSEMBLY

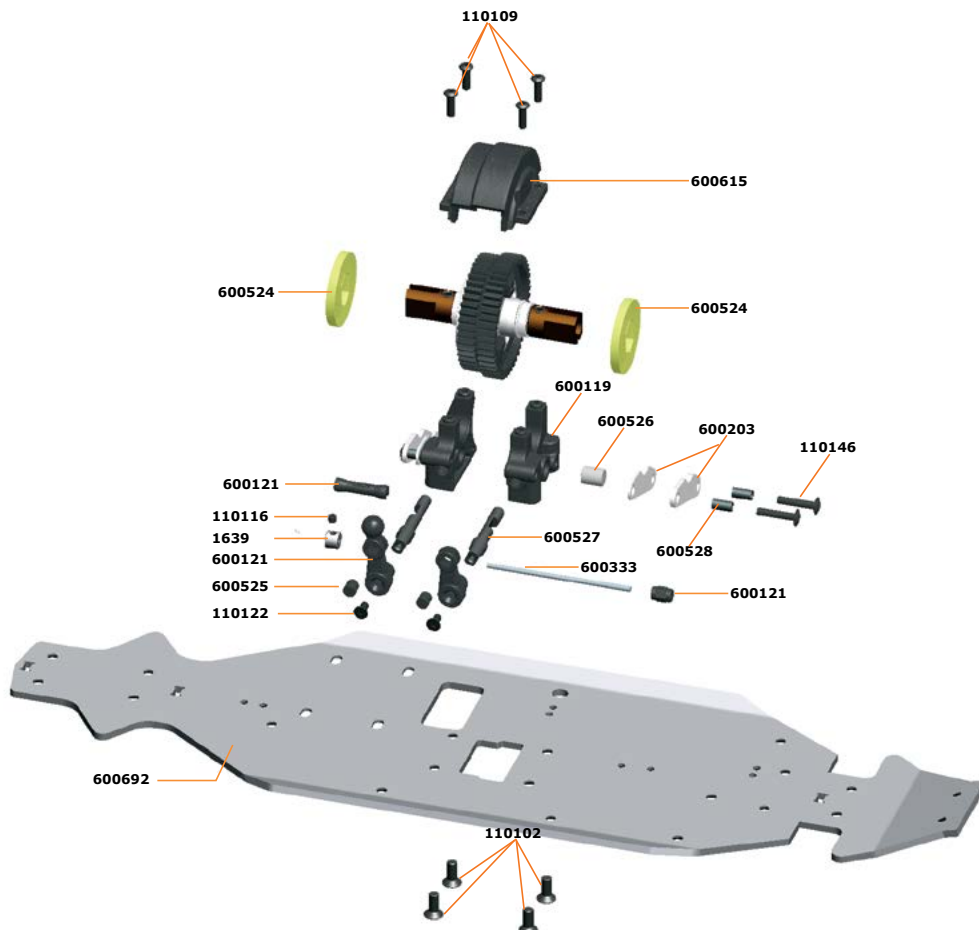


# GEARBOX ASSEMBLY



Complete FR/RR 44T diff 600501  
Complete DIFF uni 600325

# TRANSMISSION CENTER

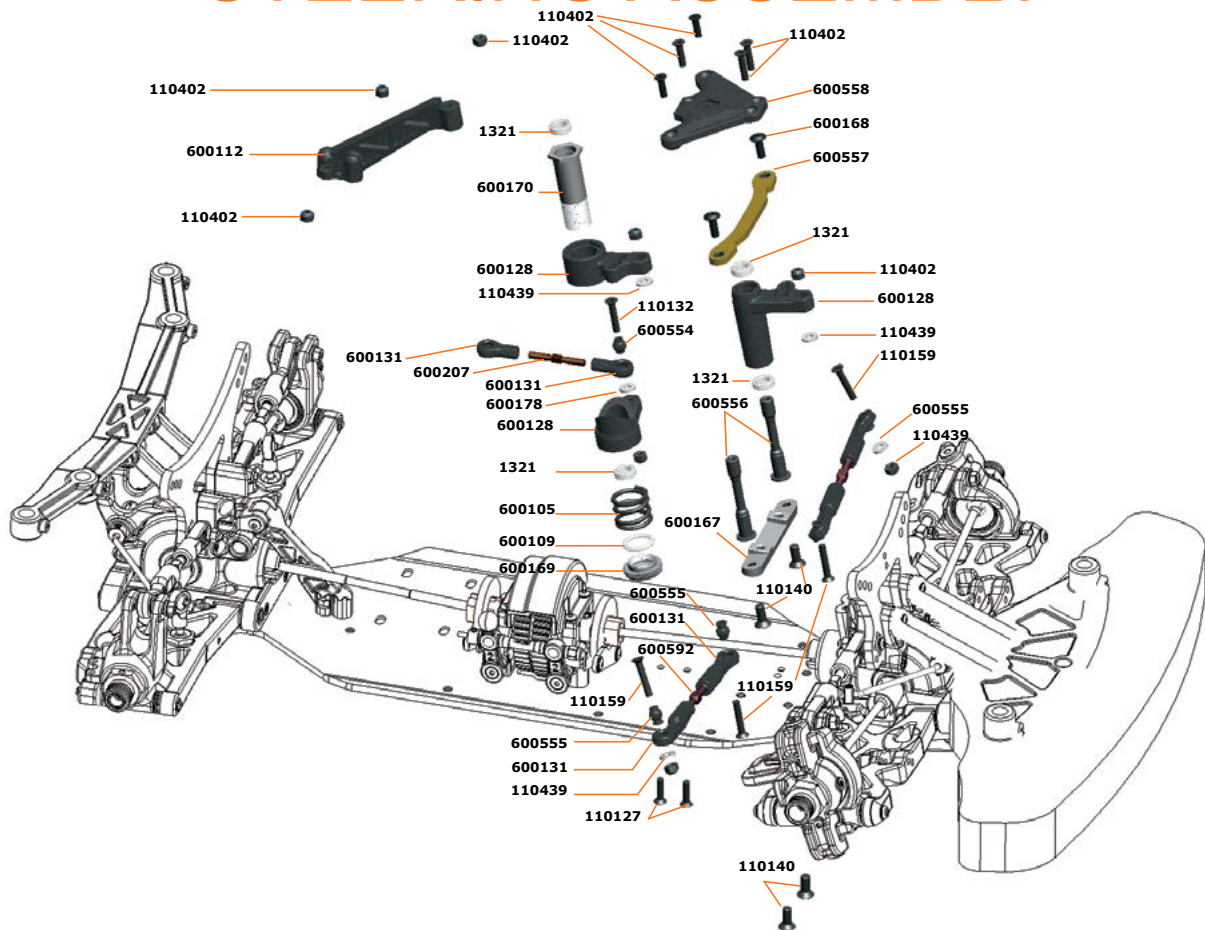




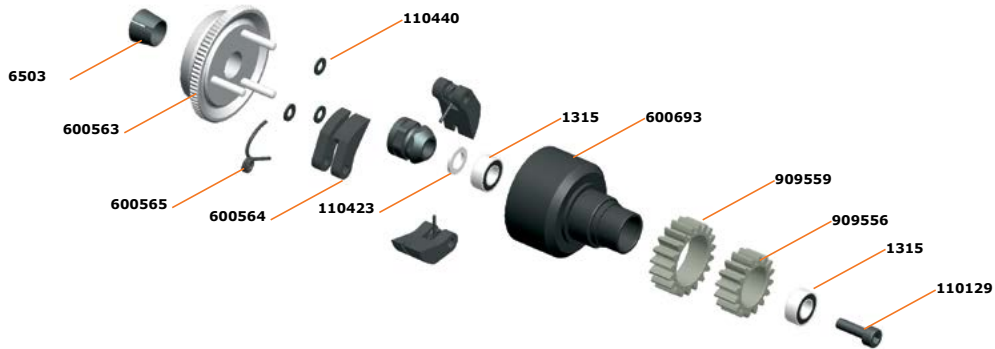




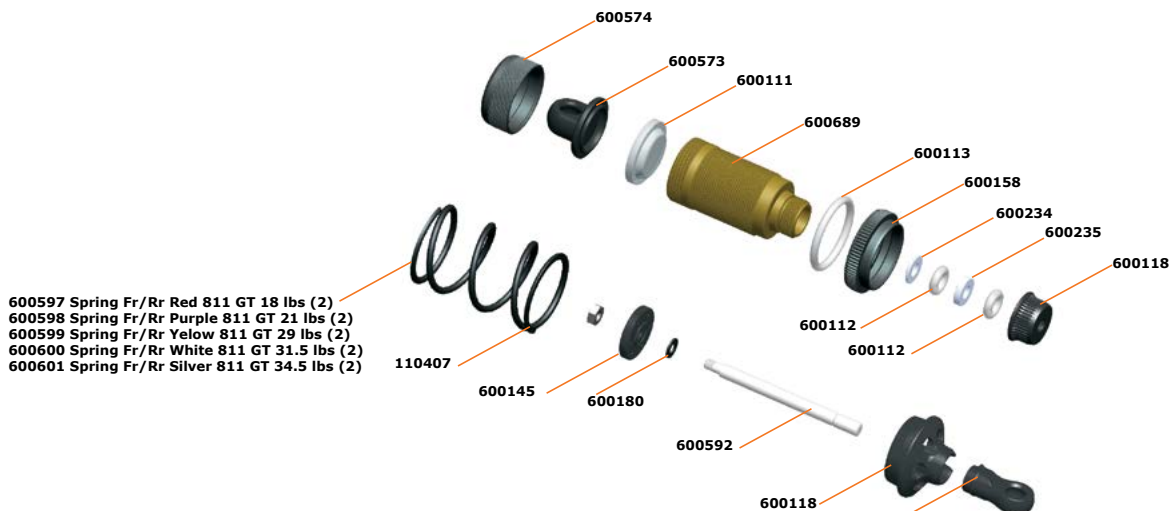
# STEERING ASSEMBLY



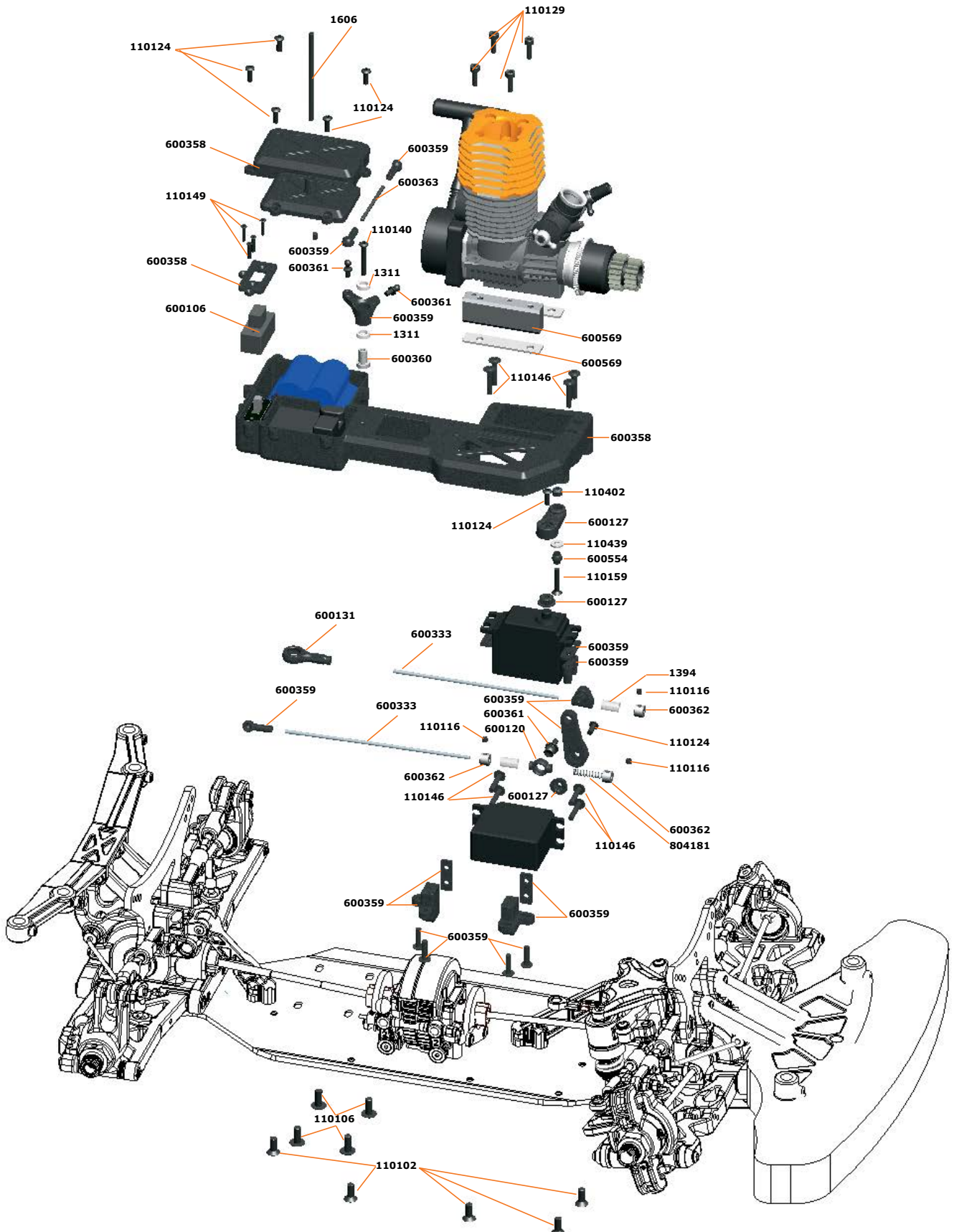
# CLUTCH ASSEMBLY



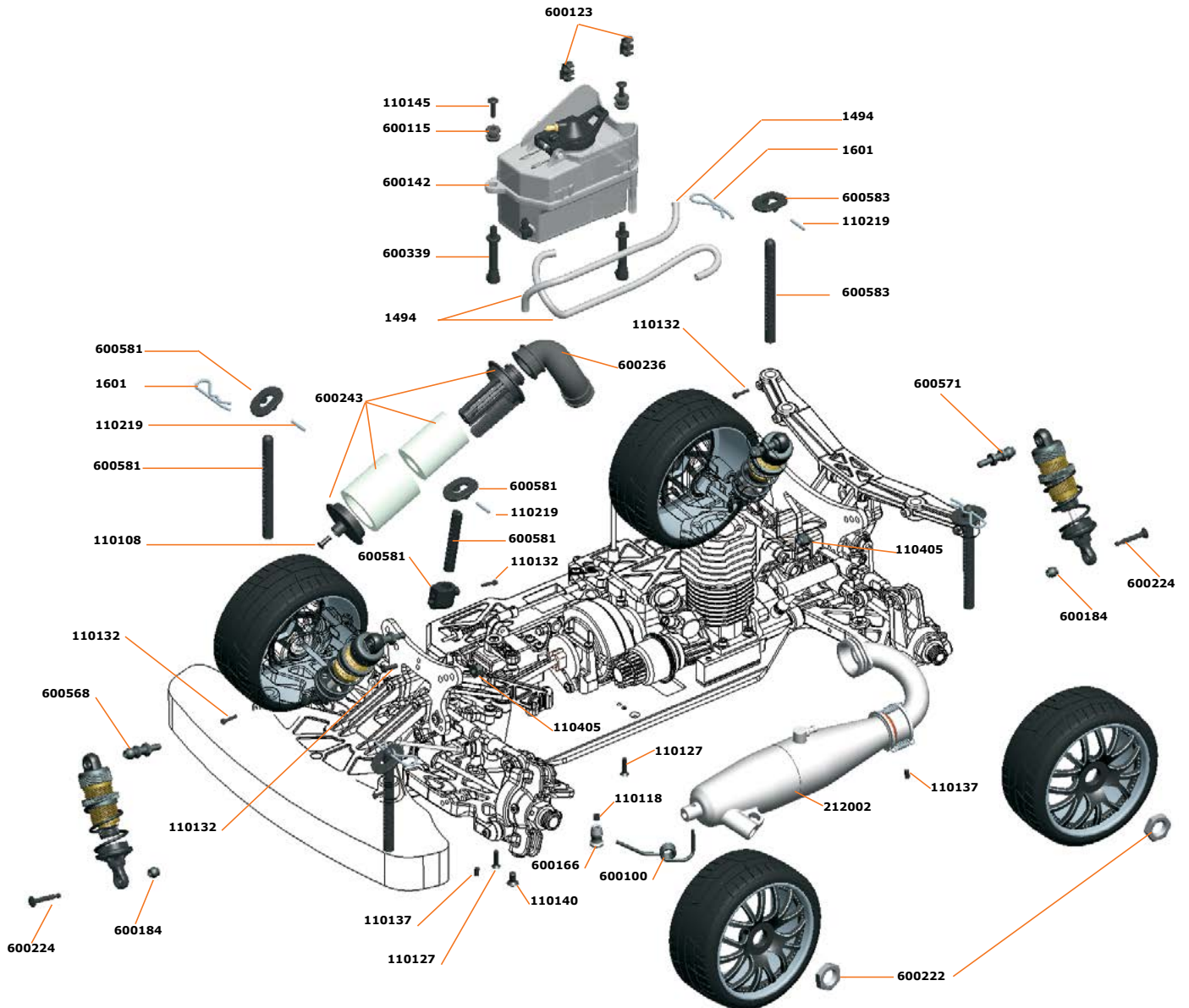
# SHOCK ASSEMBLY



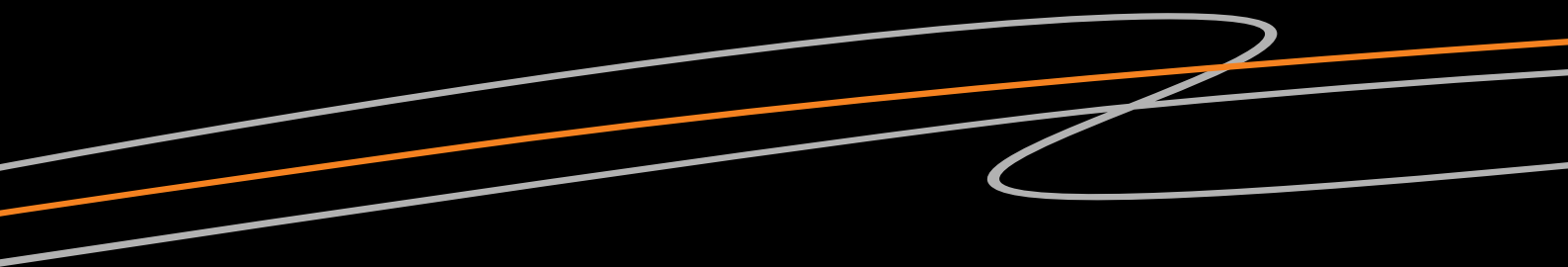
# RADIO ASSEMBLY



# FINAL ASSEMBLY



# Cobra GT RTR



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#82386 Manual / ref guide S81.1 GT RTR version 1