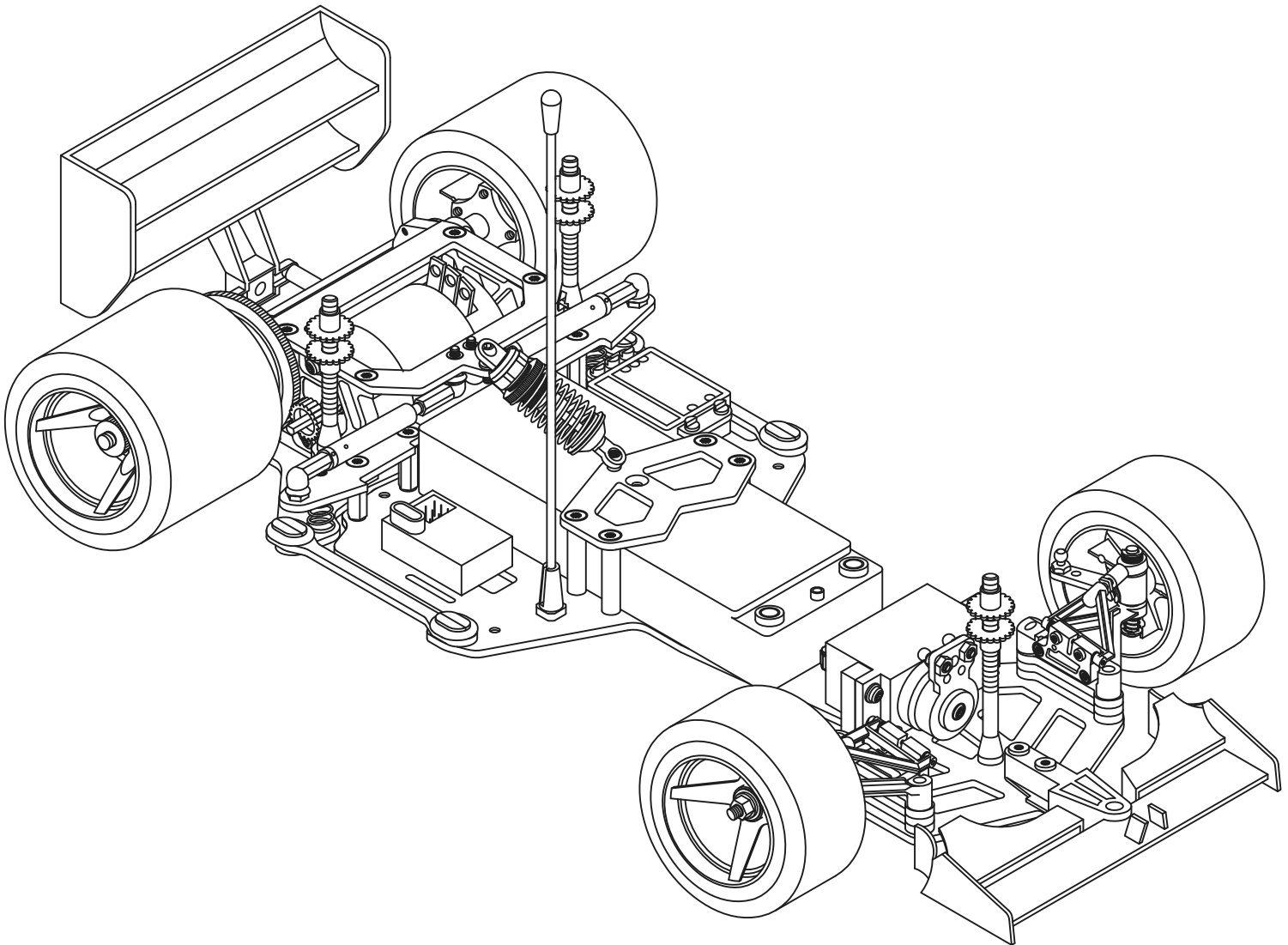




**TEAM**  
**CORALLY** FISL  
**INSTRUCTION MANUAL**



**#00142 FISL "Side Links" - Full Graphite**



# F1SL "Side Links" INSTRUCTION MANUAL

Team Corally introduces the F1SL 1:10th scale on-road racer with all new features. This car's design is based on the all new rear suspension that is controlled by graphite side-links. The side-link rear suspension allows a chassis layout that is ideal for using either 7.4V Lipo Stick or Saddle packs. All suspension parts move precisely in the required spot of 100% efficiency in following the perfect geometry design. The proven front end as used on F1 and 12SL has already shown to be the ideal choice for controlling the F1SL's pure racing bred genetics.

The F1SL uses the World's best materials and production methods includes high grade graphite chassis parts, 7075 T6 aluminium motor pod and graphite rear axle. This combines super low weight with high rigidity and durable on-track performance.

## #00142 Features:

- Fully equipped with super strong hardened black steel torx screws.
- The precision chrome steel front and rear wheel bearings offer a long lasting, low resistance and efficiency.
- Unique 1-piece graphite rear axle with ball differential.
- High grade graphite chassis components.
- Super smooth rear side link suspension with 2 rear tube dampers and shock absorber.
- WC Front suspension as used on the World Championship winning SP12X.
- Duraluminium servo mounts
- New super rigid duraluminium motor pod design with integrated bearing holder system.
- Front & rear adjustable ride height.
- Threaded body posts for precise body height adjustment.
- Wheels run on lightweight duraluminium rear wheel hubs.

NOTE: NO TIRES AND ELECTRONICS INCLUDED

## INCLUDED

- Screwdriver Torx T10 **Corally part #16081**
- Damper syrup Hard **Corally part #80001**
- Silicone Shock Oil 20WT **Corally part #80120**

## TOOLS REQUIRED FOR ASSEMBLY

- High-Grp Hex Nut driver - 5 mm **Corally part #16086**
- Screwdriver for setscrews - 1.5mm **Corally part #16082**
- Longnose Plier
- Hobby Scissors
- Double-sided Tape
- Battery Tape

## ITEMS NEEDED TO COMPLETE YOUR CAR (NOT INCLUDED)

- R/C two channel surface frequency radio system
- Battery Pack
- Battery Charger
- Servo with Servosaver
- Electronic Speed Control
- Electric Motor
- 1:10 Scale (Wide) Pancar Lexan Body
- Pinion gear (long boss), size to be determined by type and wind of motor you will be using.
- Tires

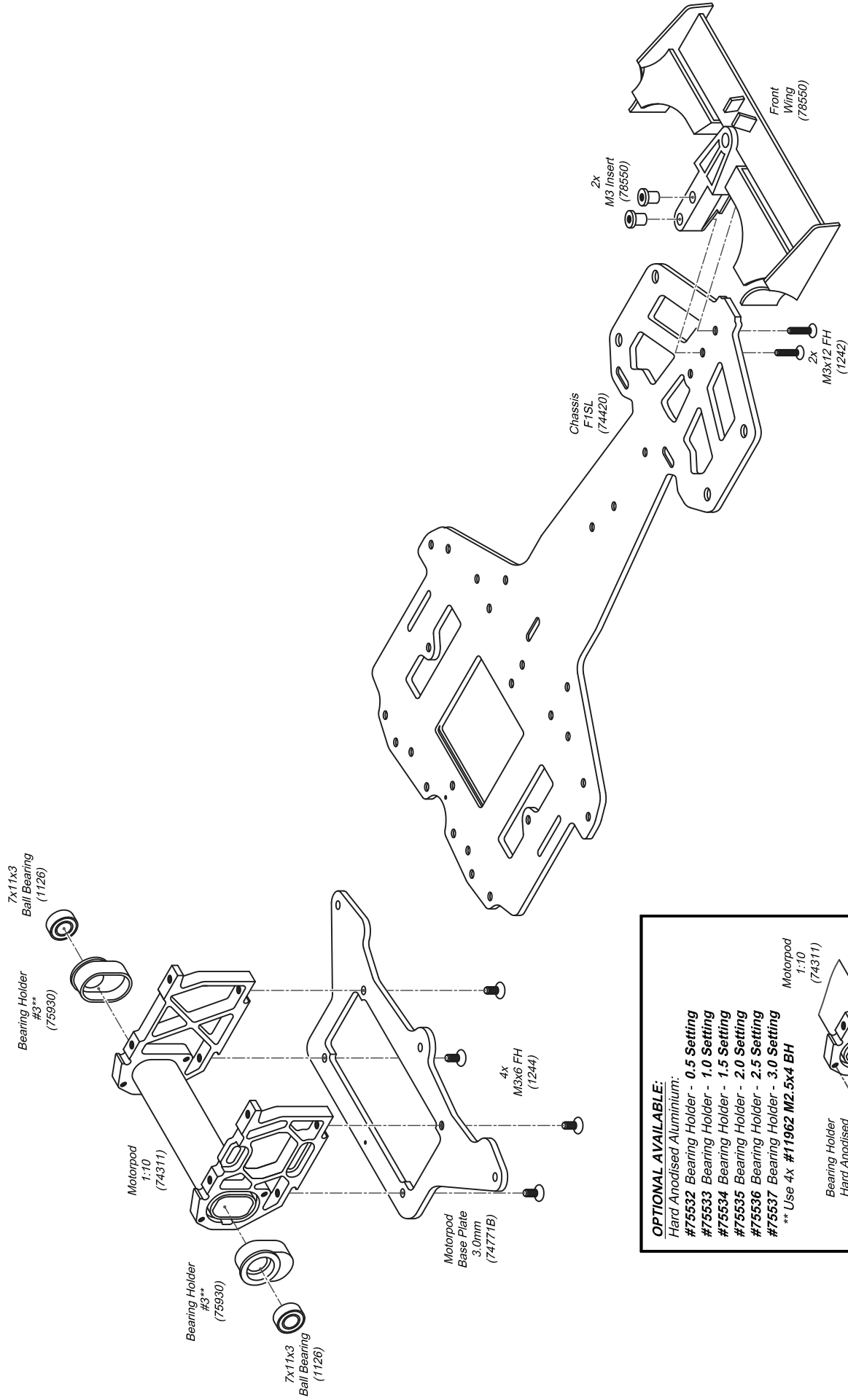
## F1SL REPLACEMENT & OPTIONAL PARTS

1004	Differential Spare Parts Set
1006	Diff balls 1/8 Inch - CARBIDE - 10 pcs
1007	Diff balls 1/8 inch - CERAMIC - 10 pcs
1008	Diff balls 1/8 Inch - STEEL - 10 pcs
10421	Antenna tube and holder
10425	Antenna holder
1124	Ball bearings, Metal Shielded - 1/4 x 3/8" - 1 pair
1126	Ball bearings, Metal Shielded - 7 x 11 mm - 1 pair
1129	Ball bearings, Metal Shielded - 1/4 x 1/2" - 1 pair
1136	Ball bearings, Metal Shielded - 1/8 x 5/16" FLANGED - 1 pair
1156	Ball bearings, Metal Shielded - CERAMIC - 7 x 11 - 1 pair
11961	Steel Screws M2.5 x 6 mm - 2.0 mm Hex Pan Head - 6 pcs.
1233A	Steel Screws 8-32 x 3/4" - 5 pcs.
1244	Steel Screws M3 x 6 Torx 10 Flat Head - 10 pcs.
1245	Steel Screws M3 x 8 Torx 10 Flat Head - 10 pcs.
1246	Steel Screws M3 x 6 Torx 10 Round Head - 10 pcs.
1248	Steel Screws M3 x 8 Torx 10 Round Head - 10 pcs.
1249	Steel Screws M3 x 10 Torx 10 Round Head - 10 pcs.
1250	Steel Nuts, M3 - 10 pcs.
1255	Aluminium Insert Nuts, M3 - 4 pcs.
1256	Aluminium Locknuts, M3 Black - 10 pcs.
1261	O-rings 3.0 x 1.0 mm - 10 pcs.
1265	O-rings 5.0 x 3.0 mm - 10 pcs.
1280	Steel washers 3 x 6 mm - 10 pcs.
1281	Aluminium washers 3 mm - 10 pcs.
2212	Steel Setscrews M3 x 5 - 1.5 mm Hex - 5 pcs.
74237	Alu post 15 mm - 1 pair
74307	Rear Wing Plate - 3.0 mm Graphite
74311	Motorpod 1:10 - Ultra rigid with bearing holder fixation - AL 7075T6
74420	Chassis F1SL - 3.0 mm Graphite
74422	Rear Bodypost Plate, Left - Incl. Inserts - 3.0 mm Graphite
74423	Rear Bodypost Plate, Right - Incl. Inserts - 3.0 mm Graphite
74425	Battery Plate - 3.0 mm Graphite
74746	Motorpod Base Pivot Plate - 3.0 mm Graphite

74752	Alu post 6 mm - 1 pair
74759	Alu post 12 mm - 1 pair
74759A	Alu post 25 mm - 1 pair
74762	Motorpod Pivot Base Plate - 3.0 mm Graphite
74767	Motorpod Damperplate - Incl. inserts - 3.0 mm Graphite
74771B	Motorpod Base Plate SL - 3.0 mm Graphite
74779	Side Links 1:10 - 3.0 mm Graphite (1 pair)
74785	Motorpod Pivot Plate - AL 7075T6
74796	Servo posts - AL 7075T6 (1 pair)
74905	Tube-damper - 1 piece
75291	Ball joint set - 6mm - Short
75548	Side Spring Adjustment Screws - For rear suspension - 1 pair
75551	Slide Springs - For rear suspension - X-SOFT - 1 pair
75552	Slide Springs - For rear suspension - SOFT - 1 pair
75553	Slide Springs - For rear suspension - MEDIUM - 1 pair
75554	Side Springs - For rear suspension - HARD - 1 pair
75532	Bearing Holders - 0.5 Setting - Hard Anodised Aluminium - 1 pair
75533	Bearing Holders - 1.0 Setting - Hard Anodised Aluminium - 1 pair
75534	Bearing Holders - 1.5 Setting - Hard Anodised Aluminium - 1 pair
75535	Bearing Holders - 2.0 Setting - Hard Anodised Aluminium - 1 pair
75536	Bearing Holders - 2.5 Setting - Hard Anodised Aluminium - 1 pair
75537	Bearing Holders - 3.0 Setting - Hard Anodised Aluminium - 1 pair
75701	Body post set 60 mm - 1 pair
75702	Body post set 65 mm - 1 pair
75710	Body post nuts 8 pcs.
75867	Rear Axle, Short - Graphite
75921	Diff nut set, Long
75930	Rear Axle Bearing Holder set - 3 pr. f. 6 different ride height settings
75953	Lower A Arm Spacers - 3.0 mm Woven Graphite - 1 pair
75957	Crossbrace - 2.0 mm GRP - 1 piece
75960	Upper Suspension Mounts - 0°, 5° & 10° caster - 3 pair
75962	Upper Suspension Arms - 1 pair
75964	Lower A Arms - 1 pair
75966	Upper Turnbuckles - 1 pair

75972	Steering Blocks - 1 pair
75974	Kingpin - 1 pair
75976	Kingpin Shim - 8 pcs.
75977	Steel Front Axle with M3 Thread - 1 pair
75979	Hinge pin - 1 pair
75980	Hinge pin L-Shaped - 1 pair
75982	E-clips - 6 pcs.
75984	5-40 x 1/8" Set Screw - 4 pcs.
75986	Spring, 022 - 1 pair
75987	Spring, 022 - 1 pair
75988	Spring, 024 - 1 pair
76101	Universal transponder holder
762094	Narrow Wheel Hub, Left
78510	F1 Body F-type (Low Nose) with turning valves & helmet
78511	F1 Body - High Nose
78550	F1 Front Wing
78602	F1 Rear Wing
79117	Hinge pin Shims - 10 pcs.
79230A	Shock Absorber
79260	Ball Cup 14 pcs.
79261	Pivot Balls 4.3 mm M3 x 2.5 mm - Hard Anodised Dural - 4 pcs.
79264	Pivot Balls 4.3 mm M3 x 5.5 mm - Hardened Steel - 4 pcs.
79267	Pivot Balls 5.8 mm, M3 x 6.5 mm - Short - Hard Anodised - 2 pcs.
79269	Pivot Balls 5.8 mm, M3 (Inside thread) - Hard Anodised - 2 pcs.
79275	Turnbuckles 57mm - 1 pair
79277	Turnbuckle Tool
79395A	Servo Post Lightweight - 1 pair
79397	Servo Post - Molded - Including screws - 1 pair
80000	Damper syrup for tube and friction dampers - Soft
80001	Damper syrup for tube and friction dampers - Hard
80002	Damper syrup for tube and friction dampers - Extra Hard
80010	Team CORALLY Diff Lube, White - For the large diff balls
80120	Team CORALLY Shock Absorber Oil - 20 WT
90081	Team CORALLY Sticker Sheet - Corally Logos (2 pieces)

# Rear End Assembly



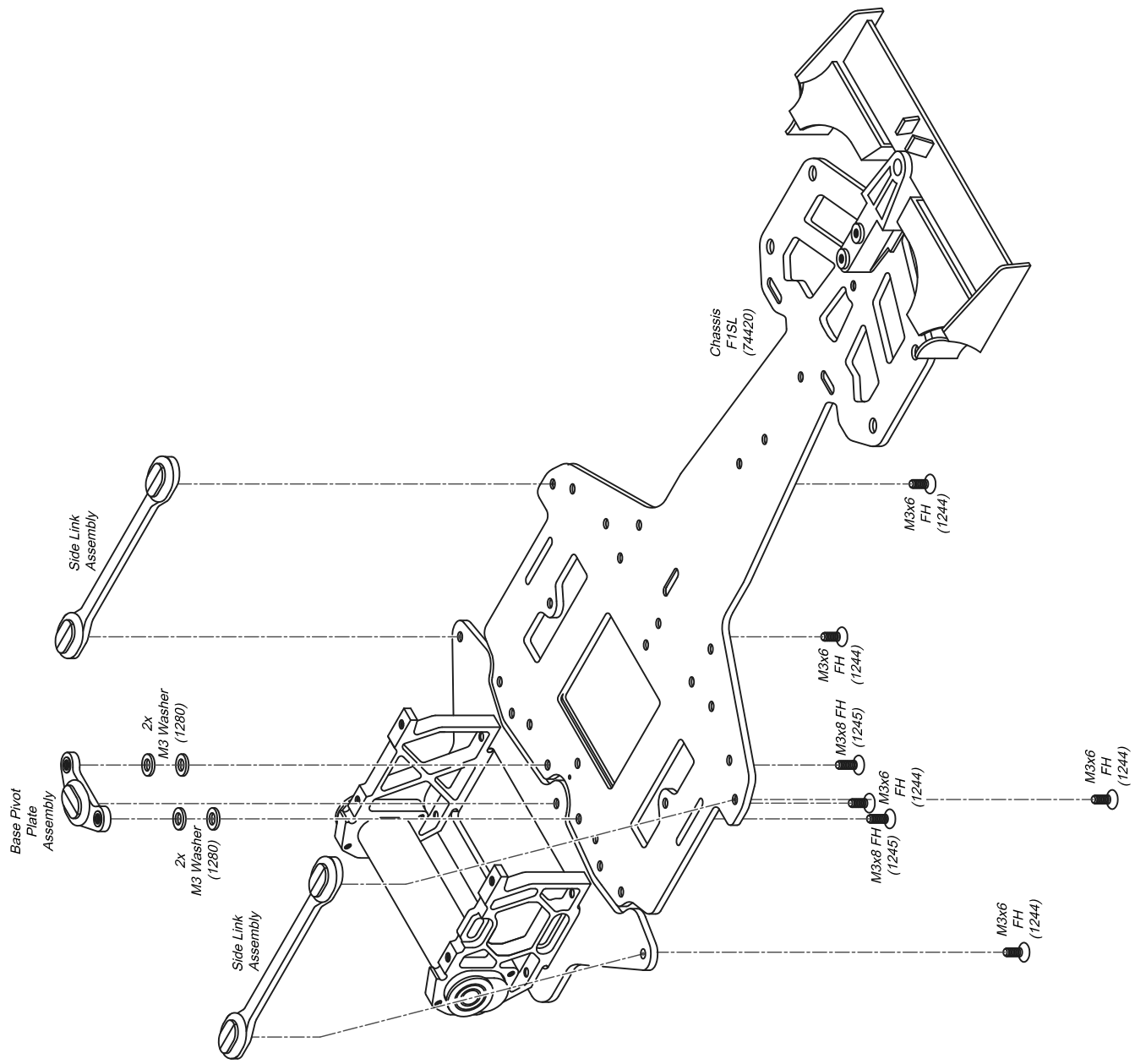
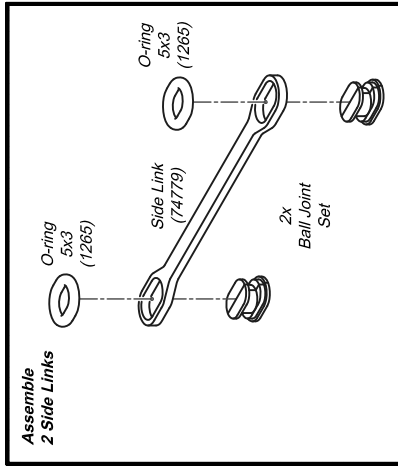
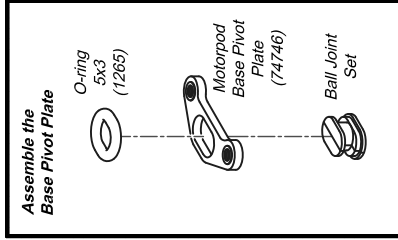
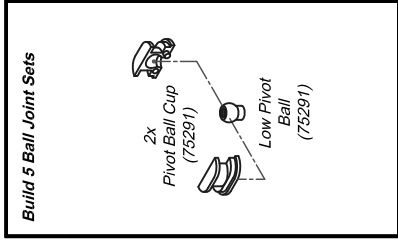
**OPTIONAL AVAILABLE:**  
 Hard Anodised Aluminium:  
 #75532 Bearing Holder - 0.5 Setting  
 #75533 Bearing Holder - 1.0 Setting  
 #75534 Bearing Holder - 1.5 Setting  
 #75535 Bearing Holder - 2.0 Setting  
 #75536 Bearing Holder - 2.5 Setting  
 #75537 Bearing Holder - 3.0 Setting  
 \*\* Use 4x #11962 M2.5x4 BH

Motorpod 1:10 (74311)

Bearing Holder Hard Anodised Aluminium

2x M2.5x4 BH (11962)

# Chassis Bottom Base Assembly







# Rear Axle Assembly

Grease the balls, but don't use too much. Just a film will do. Be aware not to grease the O-rings.

Ball Diff Lube #80010

Put the Diff balls in the cover Ball ring.

O-ring Ø15x2 (1004)

8x 1/8" Balls (1008)

Diff. Washer (1004)

1/4"x3/8" Ball Bearing (1124)

90T/48 Pitch Spurgear (2378)

Rear Axle, Short (75867)

Diff. Washer (1004)

O-ring Ø15x2 (1004)

1/4"x3/8" Ball Bearing (1124)

Narrow Wheel Hub, Right (762084)

Diff Nut Thrust Spacer (75926)

1/4"x1/2" Ball Bearing (1129)

Cone Washer

M7 Diff Nut

Diff Nut set long (75921)

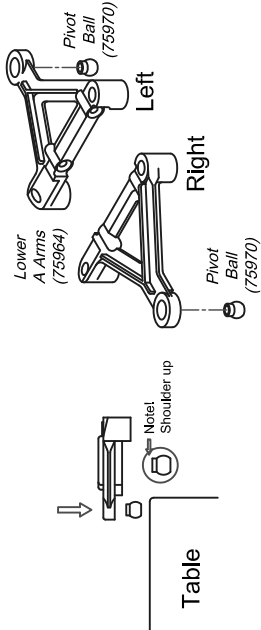
M2.5x6 (71961)

Narrow Wheel Hub, Left (762094)

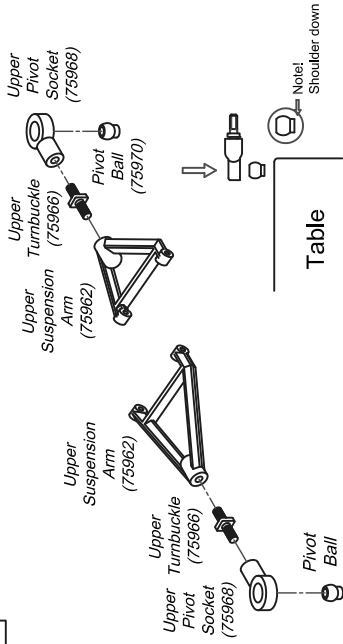
Rear Axle Assembly

# Front Suspension Assembly

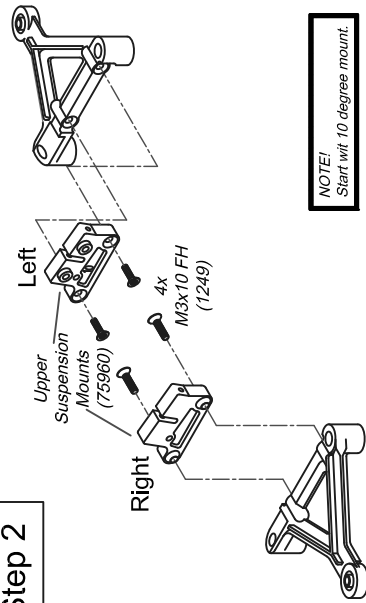
Step 1



Step 5

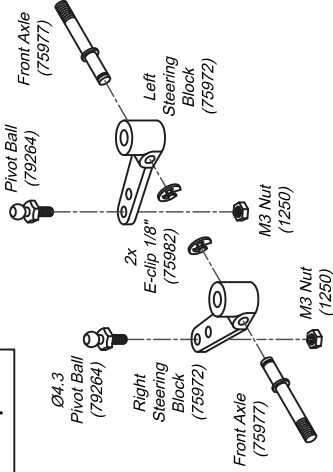


Step 2

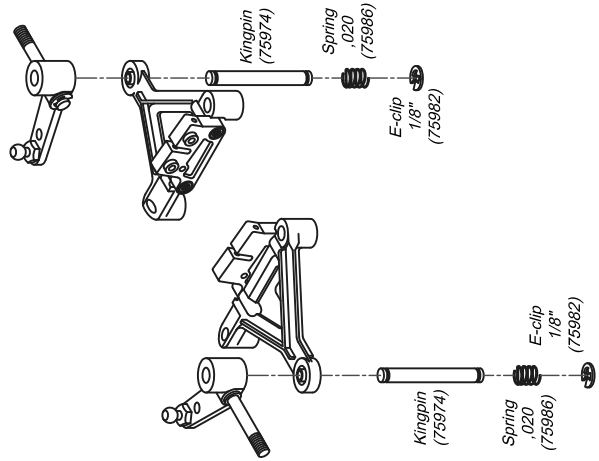


**NOTE!**  
Start w/it 10 degree mount.

Step 3

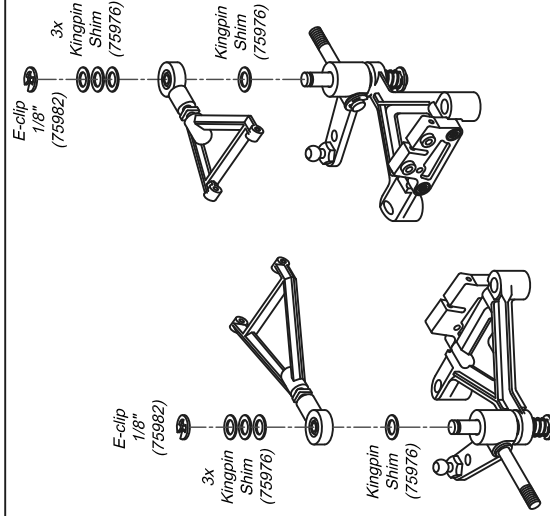


Step 4

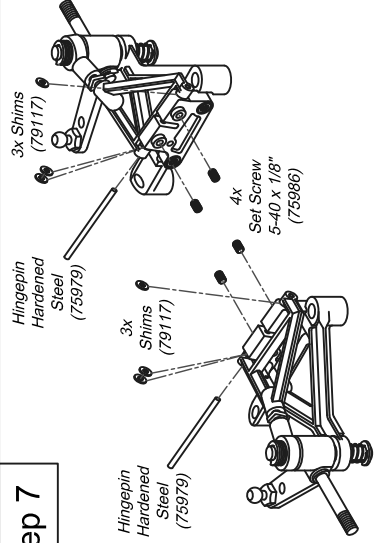


**SPRING TYPES:**  
#75986 Spring .020 - 1 pair  
#75987 Spring .022 - 1 pair (optional)  
#75988 Spring .024 - 1 pair (optional)

Step 6



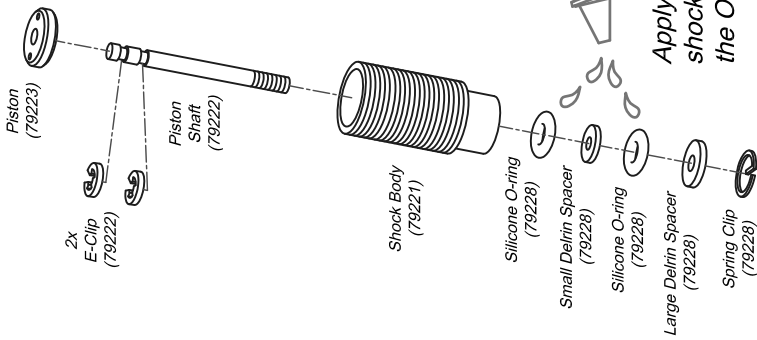
Step 7



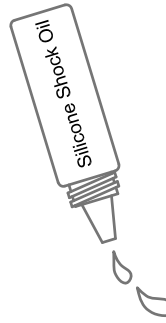
**Optional (not included)**  
GRP Crossbrace (75957)



# Shock Absorber Assembly #79230A

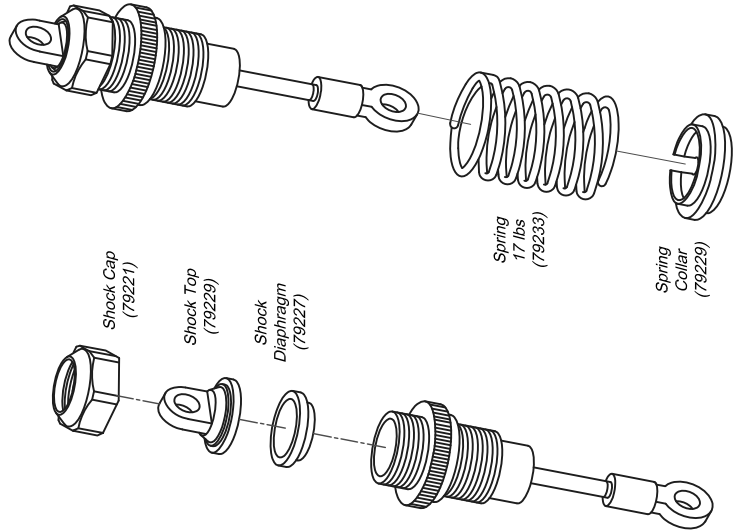
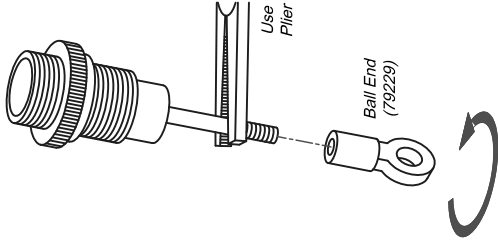
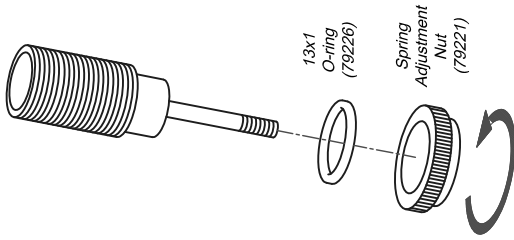


Apply a few drops of shock oil to lubricate the O-rings.



Holding the shock straight up, fill with shock oil to the top of the body. Then slowly move the shaft up and down several times to allow air bubbles to escape to the top.

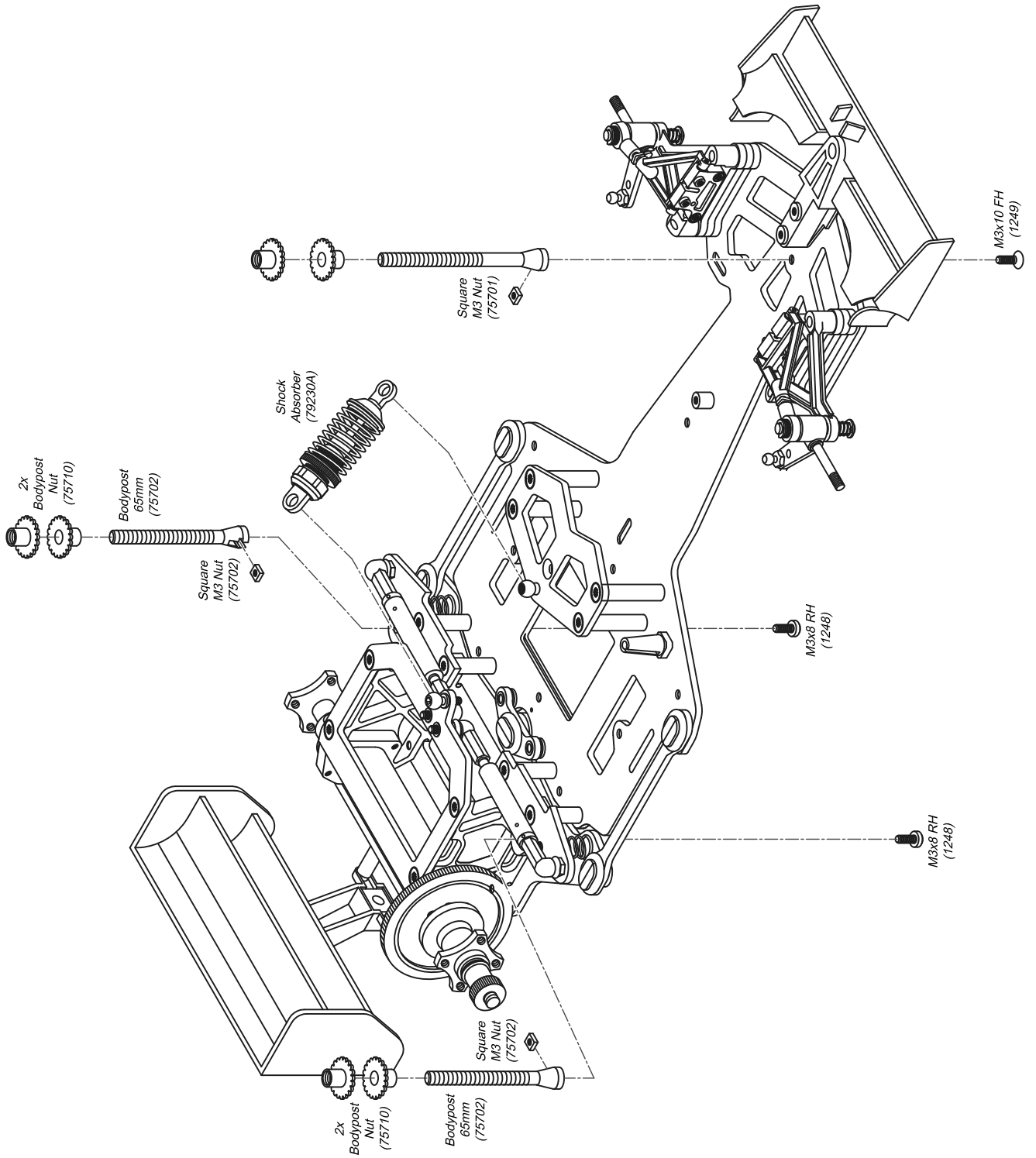
Make sure all air bubbles escape to the top then install shock diaphragm, shock top and aluminium shock cap.



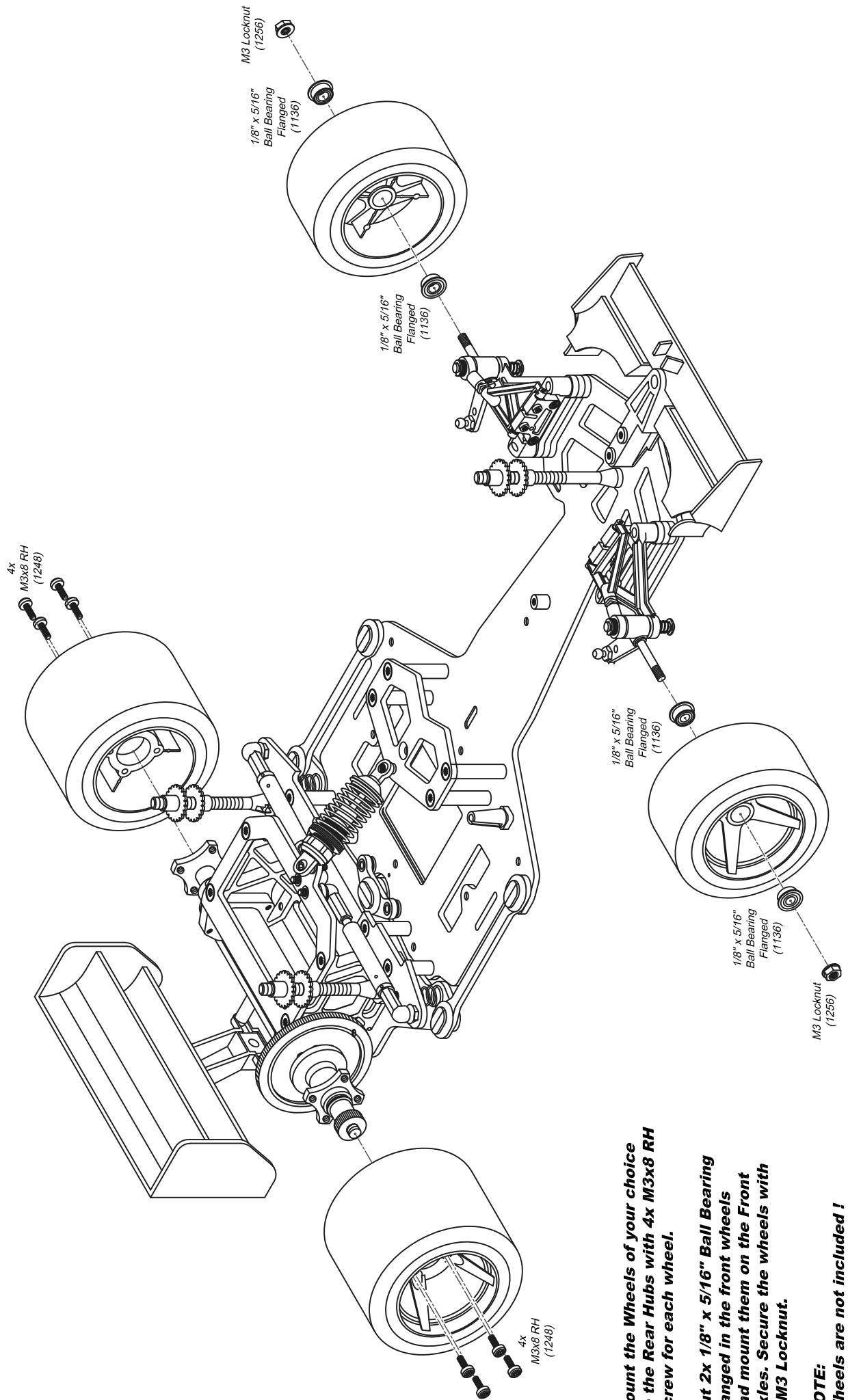
## Team CORALLY Shock oils

Small bottle 1 Oz / 30 ml	
80120	1 Oz./30 ML - 20 Wt/200 Cst
80125	1 Oz./30 ML - 25 Wt/250 Cst
80130	1 Oz./30 ML - 30 Wt/350 Cst
80135	1 Oz./30 ML - 35 Wt/400 Cst
80140	1 Oz./30 ML - 40 Wt/500 Cst
80145	1 Oz./30 ML - 45 Wt/550 Cst
80150	1 Oz./30 ML - 50 Wt/600 Cst
80155	1 Oz./30 ML - 55 Wt/650 Cst
80160	1 Oz./30 ML - 60 Wt/700 Cst
80165	1 Oz./30 ML - 65 Wt/750 Cst
80170	1 Oz./30 ML - 70 Wt/800 Cst
80180	1 Oz./30 ML - 80 Wt/900 Cst

Large bottle 2 Oz / 60 ml	
80220	2 Oz./60 ML - 20 Wt/200 Cst
80225	2 Oz./60 ML - 25 Wt/250 Cst
80230	2 Oz./60 ML - 30 Wt/350 Cst
80235	2 Oz./60 ML - 35 Wt/400 Cst
80240	2 Oz./60 ML - 40 Wt/500 Cst
80245	2 Oz./60 ML - 45 Wt/550 Cst
80250	2 Oz./60 ML - 50 Wt/600 Cst
80255	2 Oz./60 ML - 55 Wt/650 Cst
80260	2 Oz./60 ML - 60 Wt/700 Cst
80265	2 Oz./60 ML - 65 Wt/750 Cst
80270	2 Oz./60 ML - 70 Wt/800 Cst
80280	2 Oz./60 ML - 80 Wt/900 Cst



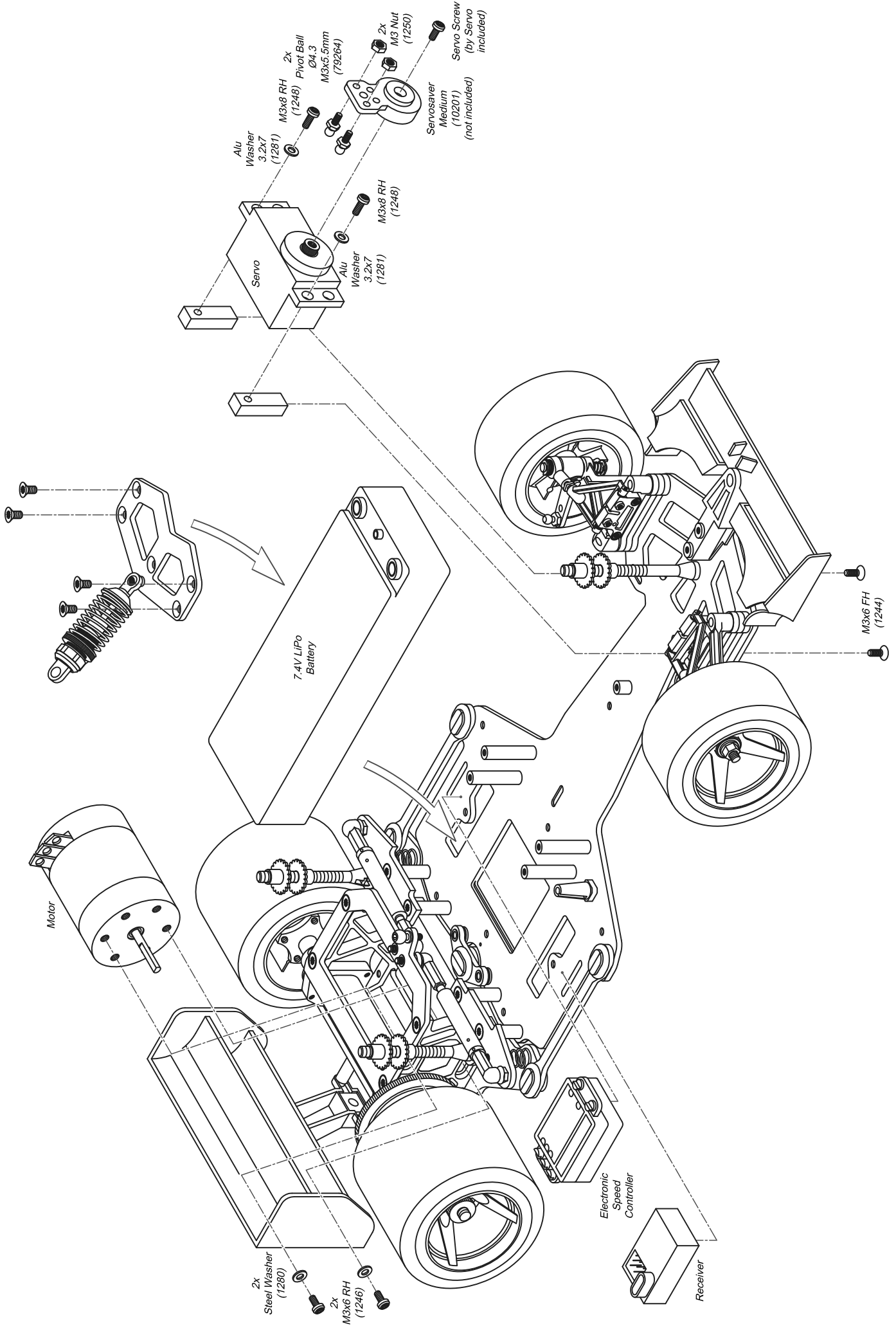
# Wheels Mounting

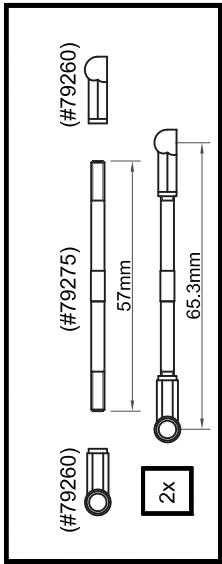


**Mount the Wheels of your choice to the Rear Hubs with 4x M3x8 RH screw for each wheel.**

**Put 2x 1/8" x 5/16" Ball Bearing flanged in the front wheels and mount them on the Front axles. Secure the wheels with a M3 Locknut.**

**NOTE:  
Wheels are not included !**

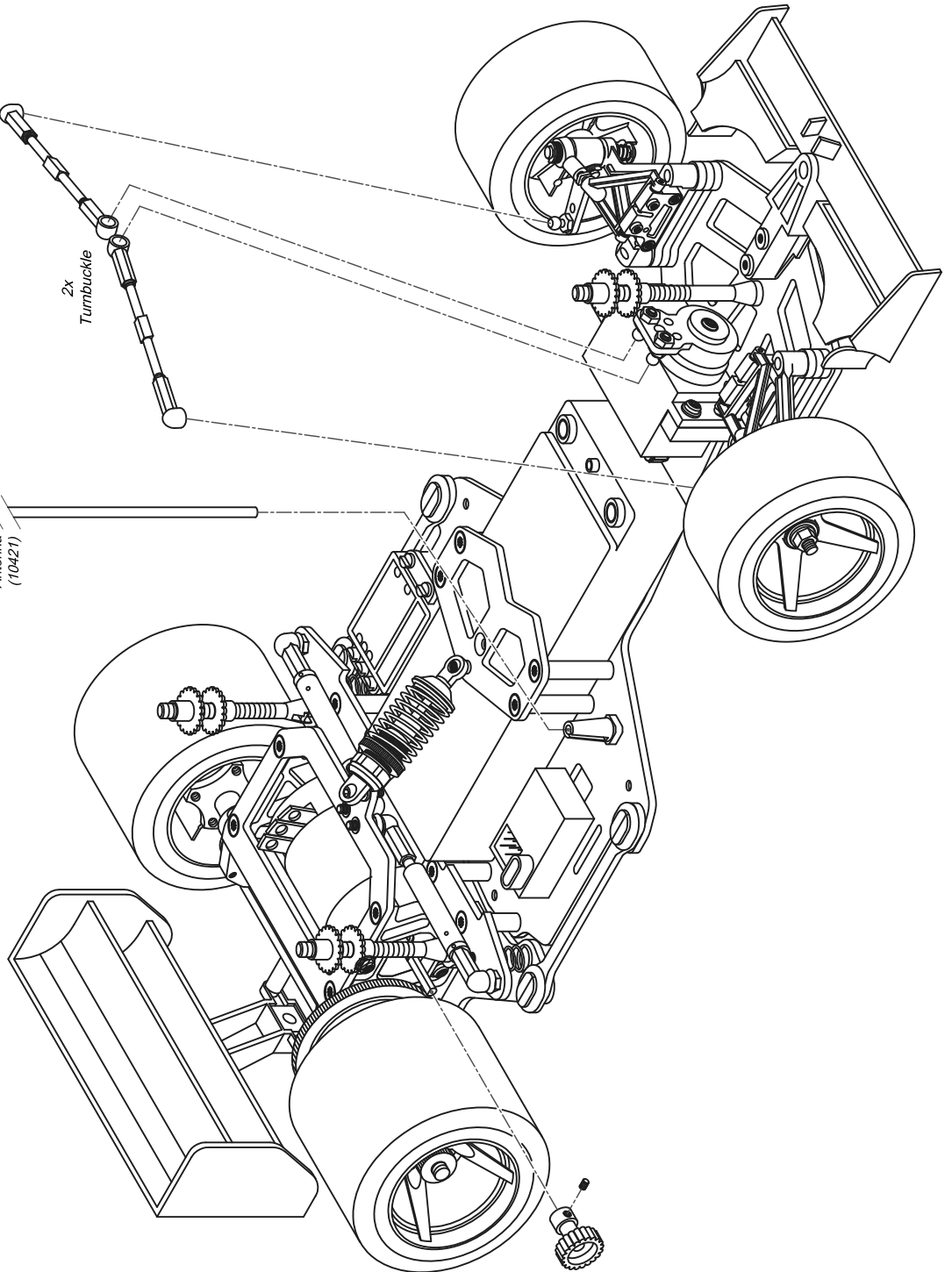




Snap the Turnbuckles on the ball joints.

2x Turnbuckle

Antenna (10421)



# Almost Ready To Run

Your standard spur gear is 78T/48Pitch. Do not overgear the motor, check the gear ratio chart on page 19.

## Pinions

Pinions

48DP	STEEL
13T	#2313
14T	#2314
15T	#2315
16T	#2316
17T	#2317
18T	#2318
19T	#2319
20T	#2320
21T	#2321
22T	#2322
23T	#2323
24T	#2324
25T	#2325
26T	#2326
27T	#2327
28T	#2328
29T	#2329
30T	#2330
31T	#2331
32T	#2332

64DP	7075	STEEL
17T	#2517	#2417
18T	#2518	#2418
19T	#2519	#2419
20T	#2520	#2420
21T	#2521	#2421
22T	#2522	#2422
23T	#2523	#2423
24T	#2524	#2424
25T	#2525	#2425
26T	#2526	#2426
27T	#2527	#2427
28T	#2528	#2428
29T	#2529	#2429
30T	#2530	#2430
31T	#2531	
32T	#2532	
33T	#2533	
34T	#2534	
35T	#2535	
36T	#2536	
37T	#2537	
38T	#2538	
39T	#2539	
40T	#2540	

NOTE:  
Only long boss pinions can be used!!

## Spur Gears

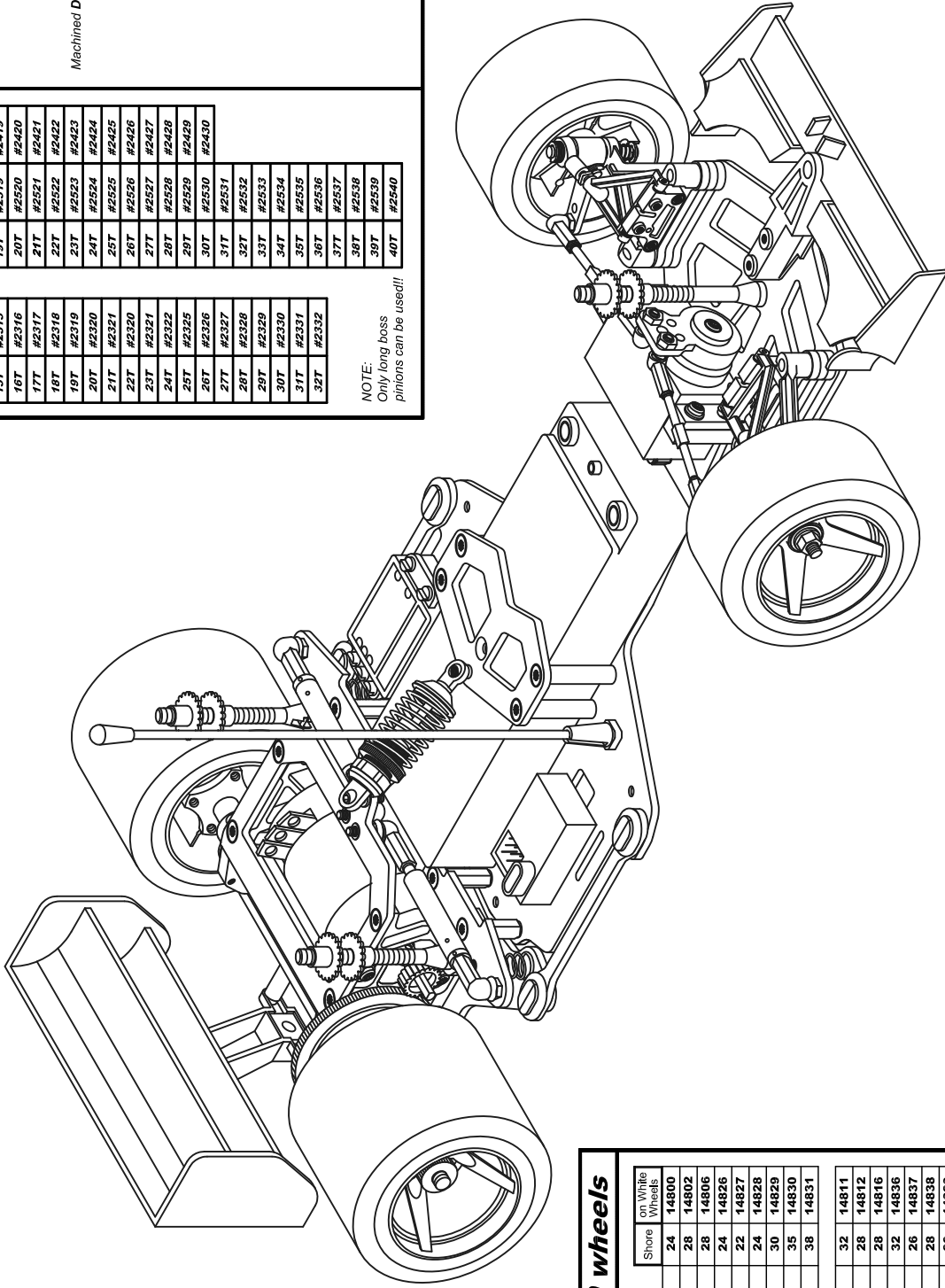
Molded Spur Gears

48DP	STAR
78T	#2378
81T	#2381

64DP	STAR
98T	#2498
100T	#24100
104T	#24104
108T	#24108
110T	#24110

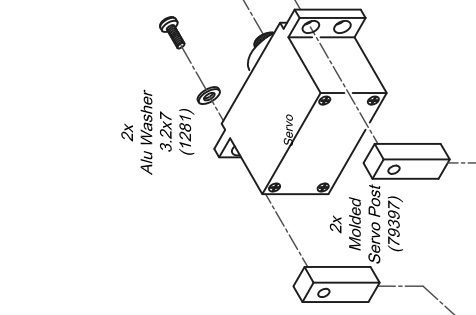
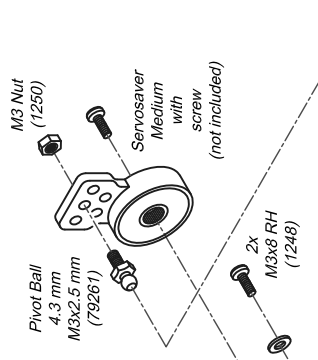
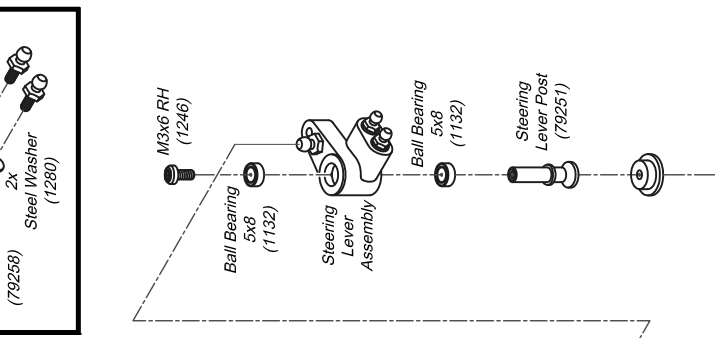
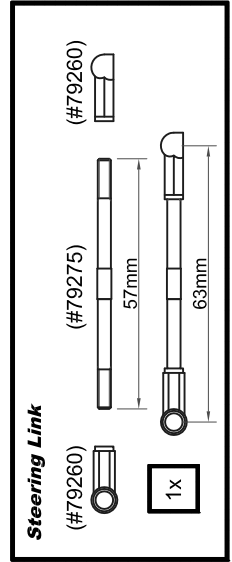
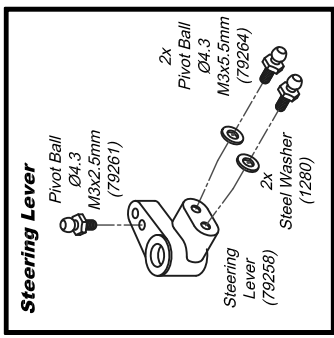
Machined DELRIN Spur Gears

64dp	DELRIN
78T	#24278
80T	#24280
82T	#24282
84T	#24284
86T	#24286
88T	#24288
90T	#24290
92T	#24292
94T	#24294
96T	#24296



## Pre-glued tyres on 1:10 wheels

Shore	White Wheels
24	14800
28	14802
28	14806
24	14826
22	14827
24	14828
30	14829
35	14830
38	14831
32	14811
28	14812
28	14816
32	14836
26	14837
28	14838
30	14839
35	14840
40	14841
45	14842
40/45	14843
38	14844



## TIPS TO FINAL ASSEMBLY

### Radio installation.

The Electronic speed control (ESC) and the receiver need to be mounted onto the chassis, using double sided tape (not supplied.) Mount the ESC first on the chassis plate on the left of the car. It is important that the ESC is mounted in a position which keeps the battery wires to the minimum length, to minimise electrical losses and potential interference problems. Next mount your receiver on the chassis plate on the right of the car. It is advised to keep the crystal and aerial wire as far away from the batteries as possible. Finally thread the aerial wire through the o-rings on the Anti-roll mast.

### Motor installation and gear meshing.

Bolt your chosen motor in place as shown and fit the appropriate pinion gear to the shaft of the motor. The IOSL is designed for use with long boss pinions which are available from Corally in a wide variety of sizes in 48 dp and 64 dp. Use a 1.5 mm setscrew driver and ensure that you tighten the 3 mm set screw onto the flat on the motor shaft. Refer to the gear ratio chart in this manual for advice on gear ratio selection. Once in place and the gears are fitted you need to adjust the position of the motor, in the slotted holes provided in the motor pod, to ensure that the gears mesh smoothly. A small amount of play is required between the teeth of the gears as they engage, turn the axle to ensure that they mesh consistently around the whole spur gear. Once in position tighten up the M3 screws to hold the motor firmly in place. Please note that there are two types of gears available for Corally cars. One is 48 dp which offers good efficiency and great durability, whilst for the serious racer there are 64 dp gears which have a much smaller tooth form and so offer greater efficiency at the expense of durability.

### Mounting the bodyshell and wings.

It is recommended that you use a lexan / polycarbonate bodyshell (not included) as they are lightweight and strong. See the set-up section later in this manual for advice on bodyshell selection and other aerodynamic considerations. It is advised that you mark the outside of the bodyshell with bodypost and aerial positions, before you spray paint it on the inside. The Corally body mounting posts fitted to the car are fully adjustable. The bodypost screws are fitted with sleeves which have been designed to allow the bodyshell to 'float' a little. This design helps in the event of a crash or when the bodyshell is accidentally run too low.

# MAINTENANCE AND SETUP TIPS.

## Tweak (left to right balance of the car).

One of the most important factors when racing an R/C on-road car is 'tweak'. If a car is tweaked then the car will turn differently in left and right hand bends. Purposely tweaking a car may be advantageous when oval racing, but generally it is best if the car handles exactly the same in both left and right hand turns.

A car becomes tweaked when the grip or weight is not balanced between left and right hand wheels. This may occur in several ways.

- The chassis assembly could be twisted, this is no longer common in modern cars, but should be checked after major crashes.
- The tires on each side of the car could be different sizes. The outside tire generally wears more quickly than the inside tire. To prevent problems swap the tires from left to right hand sides after every couple of races. Or use a tire truer if available.
- The suspension or ride height may not be set the same on each side of the car. Check springs, tweak adjuster settings and ride height settings.
- Steering movement may be different on left and right sides.
- Tires may be giving different grip levels. Check and replace any that seem to have different firmness on the left or right.
- When using tire additive it is possible to tweak the car by accidentally applying different amounts of additive to each tire – be careful!
- Finally its possible for the car to feel tweaked if the suspension does not move freely. Check that the power wires to the motor do not restrict the rear suspension movement and check that all ball joints move freely.

## Ride height adjustment.

The ride height should be kept to a minimum, this will keep the centre of gravity of the car as low as possible and so maximise cornering speeds. The ride height should ideally be between 4 – 6 mm (1/8"-3/16"), but on bumpy tracks or where regulations dictate otherwise run the car a little higher. Check regularly to compensate for tire wear which can be rapid on some tracks.

### **Adjusting the front ride height.**

A-arm spacers can be mounted under A-arms of the front suspension. Placing the front A-arms block lowers the chassis (less ride height) and conversely putting them above raises the chassis, giving more ride height.

### **Adjusting the rear ride height.**

Three molded different pairs of rear axle bearing holders have been included in the kit, they are all off-set to give 6 different rear axle height settings. Optional Available are six pairs of rear axle Hard Anodised Aluminium bearing holders. With these settings it is possible to fine tune the ride height with different kind of tire sizes.

Remove the rear axle and fit the appropriate pair of bearing holders to each end of the rear axle tube, complete with ball bearings and put the rear axle back into place. Do not forget to re-mesh your pinion and spur gear. Always use the same height setting on both sides of the car otherwise the rear axle bearings will lock up.

## Rear tube damper servicing and adjustment.

The rear tube dampers are a very important part of the car. These dampers control the rear suspension movement.

Periodically check that the movement of these dampers is even and smooth in all directions. To change the damper action (stiffness) the damper syrup has to be replaced by another type. Corally offers 3 different grades as following:

- #80000 – Damper Syrup, Soft
- #80001 – Damper Syrup, Hard
- #80002 – Damper Syrup, X-Hard

### **Rear damper setup.**

The rear damper setup controls the speed at which the rear suspension moves over bumps and through turns.

- If the car is poor over bumps then increasing the rear dampening effect may help.
- Increasing the rear dampening effect will also increase steering a little, remember this when making this adjustment for other reasons.
- If the inside front wheel goes light or even lifts during cornering then the damper is too thin.
- If the car is reluctant to change direction quickly enough in chicanes then reducing the rear damper effect may help.

General rule - if the car understeers whilst exiting corners then the rear damper is set too thin. If the car oversteers exiting corners then the damper is too thick.

## **Corally US differential adjustment and maintenance.**

To test the differential hold both rear wheels then try to turn the spur gear with your right thumb. If the gear turns without extreme force then tighten the diff nut in the centre of the right wheel a small amount. Repeat this process until the gear cannot be easily rotated when both wheels are being held.

### **Servicing the differential.**

Unscrew the diff nut and carefully remove each component, making careful note of the order in which they are fitted (refer to the sectional drawings if necessary). Check the bearings in the centre of the spur gear and the drive plate, clean if necessary. Clean the 1/8" balls, the diff washers, the spur gear, and thrust bearing. Worn diff balls are often the cause of poor differential action, so if they are old or if the diff has been slipping a great deal, then try a new set. If you suspect that the diff washers are worn then firstly try building the diff with the washers turned over so that the balls run on the other face of the washers. If you have already done this once or if the diff still feels rough then they will need to be replaced.

### **Ball pivot servicing.**

The IOSL utilises simple, but highly effective ball pivots on the Side Links and Base Pivot. It is important that the movement of these pivots is free and smooth. To service the ball pivots simply remove the large rubber O-ring and the Side Links or Base Pivot Plate can be lift away. The plastic socket can then be removed in two pieces. Please note that at the Corally factory these ball pivots are matched in sets to ensure that smooth, play free movement is maintained. Do not mix the ball and socket sets.

Check the system for play or binding, if the pivot system is worn or damaged then replace. There are also plastic pivot clips available as an alternative for the O-rings. It is not usual for play to be evident.

### **Basic chassis set-up.**

Most chassis tuning is to be done to give a good balance between front and rear traction. Too much front end traction will cause the car to turn too fiercely or even spin, this is referred to as 'oversteer'. Too much rear end traction will cause the car to turn far less than the front wheels are actually asking it to do. The car will 'push' or 'understeer' wide in the turns. The car will also scrub off speed due to the extra lock on the turned front wheels. It is critical that you tune your car to give a good balance between front and rear grip. The ideal situation is for the car to negotiate the turns without under or oversteering. The minimum amount of steering lock should be used as this will ensure that the car carries its speed through the turns.

Corally cars are designed to give maximum traction, with neutral and stable handling. This is a good starting point on most tracks, but not all tracks or conditions are the same.

### **Choosing the right tires**

Choose the best available highest bite tire for the rear of the car and then balance the car with the front tires. If the car pushes or understeers then fit front tires with more grip (softer). If the car oversteers or hooks then fit front tires with less grip (harder).

### **Choosing the right tire diameter**

When a tire is new and has a large diameter it will provide more grip than the same tire when it has worn down and has a small diameter.

Remember the following:

- Larger tires have more rolling resistance than smaller tires.
- Smaller tires are not so good over bumps as larger tires.
- When more steering is required use smaller rear tires or larger front tires.
- When less steering is required use larger rear tires or smaller front tires.

### **Tire additive**

Once the correct tires have been selected, you have experience of the best ways to treat them and what the different diameter achieve, you can fine tune the car by adjusting the amount of additive used on the front tires. Always apply the additive across the full width of the rear tires and on the inside of the front tires. Ensure that you treat each front tire exactly the same amount.

The more steering you need, the more additive you use on your front tires.

\* Repeated use of the same set of tires with additive can make them very soft. These tires can easily be damaged, they wear more quickly and have higher rolling resistance. The best solution is to have several sets of the same compound of tire. You can then rotate these sets of tires to prevent premature softening and they will give longer overall life.

### **Gear ratio charts**

As it is often necessary to change tires and tire sizes to get the car dialled into the track, it is therefore important that you know exactly what effect these tire size changes will have on the gear ratio. The following gear ratio charts equate motor gear ratios into linear distance travelled along the track per revolution of the motor and by doing so take into consideration the tire size used.

#### **How to use these charts.**

Measure your rear tires, find the chart for the tire size, line up the appropriate pinion and spur gears used and the chart will then show you the mm/rev travelled.

- The higher the number the further the car will travel per motor revolution, meaning it's geared higher than a lower figure.
- Smaller pinions mean lower mm/rev settings and larger pinions mean higher settings.
- Smaller spur gears mean higher mm/rev settings and larger spur gears mean lower settings.
- Higher settings mean higher top speed (using more battery energy).
- Lower settings mean less top speed but more acceleration (using less battery energy).
- A too high gear ratio setting might damage your motor and cause excessive brush and commutator wear.

The gear ratio chart can be found in the following page 19.





<b>SETUP SHEET</b>					<b>DRIVER</b>					
					<b>DATE</b>					
					<b>EVENT</b>					
				<b>TRACK</b>						
#00142:				<b>SETUP</b>						
<b>FRONT SETUP</b>	<b>SPRINGS</b>		.020		.022		.024	<b>FRONT STEERING</b>		
	<b>SYRUP</b>		(Soft)		(Med.)		(Hard)			
	<b>UPPER ARM MOUNT</b>		(0°)		(5°)		(10°)			
	<b>CASTER</b>	<b>CAMBER</b>		<b>SERVO POSITION</b>			(FRONT)		(REAR)	
	<b>UPSTOP</b>	<b>DOWNSTOP</b>		<b>TRACK RODS</b>			(CENTRE)		(2-Pivot)	
	<b>FRONT RIDEHEIGHT</b>		(4,0 mm)		(5,0 mm)	<b>FRONT WIDTH</b>		(196 mm)	(210 mm)	
		(4,5 mm)		(5,5 mm)		(198 mm)		(212mm)		
<b>REAR SETUP</b>	<b>BATTERY PLACE</b>		(Center)		(Wide)	<b>SHOCK SPRING</b>		(SILVER)	(GOLD)	
	<b>SIDE SPRING</b>		(X-Soft)		(Medium)	<b>SHOCK OIL</b>			(WT)	
			(Soft)		(Hard)	<b>TUBE DAMPER SYRUP</b>		(Soft)	(Med.)	(Hard)
	<b>REAR RIDEHEIGHT</b>		(4,0 mm)		(5,0 mm)	<b>REAR WIDTH</b>		(198 mm)	(200 mm)	
		(4,5 mm)		(5,5 mm)						
<b>TIRES</b>	<b>FRONT TIRES</b>								(mm)	
	<b>FRONT TIRE ADDITIVE</b>								(%)	
	<b>FRONT WHEELS</b>									
									(mm)	
									(%)	
<b>MOTOR</b>	<b>MOTOR</b>		(brand)						(mm/rv)	
	<b>TIMING</b>									
	<b>BRUSH</b>		<b>SPRING</b>							
									(teeth)	
									(teeth)	
									(48 dp)	
									(64 dp)	
<b>BAT</b>	<b>BATTERY</b>									
	<b>RECEIVER BATTERY</b>									
<b>OTHER</b>	<b>ESC</b>									
	<b>ESC PROGRAM</b>									
	<b>CHASSIS</b>									
<b>RACE DATA &amp; NOTES</b>	<b>RACE RESULT</b>		(Qual.)		(Final)	<b>TRACK SURFACE</b>				
	<b>POSITION IN MAINS</b>		(F1)		(F2)		(F3)	<b>COMPOSITION</b>		
	<b>FASTEST QUALIFYER</b>		(Laps)		(Time)	<b>TRACTION</b>		(Low)	(Med.)	(High)
	<b>FASTEST LAP TIME</b>				(Sec.)	<b>TEMPERATURE</b>				
	<b>NOTES</b>									