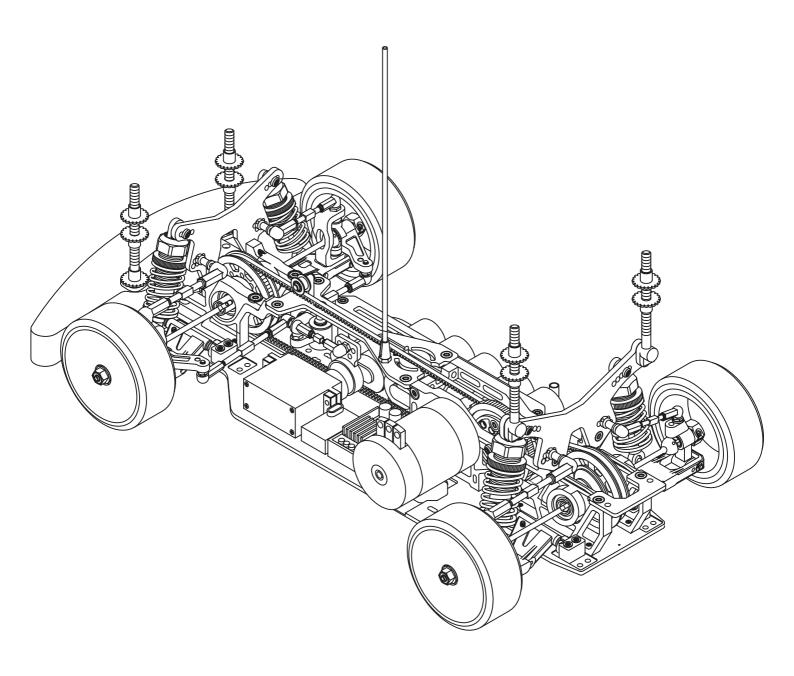


THAILY RDX PHI 09 Instruction Manual

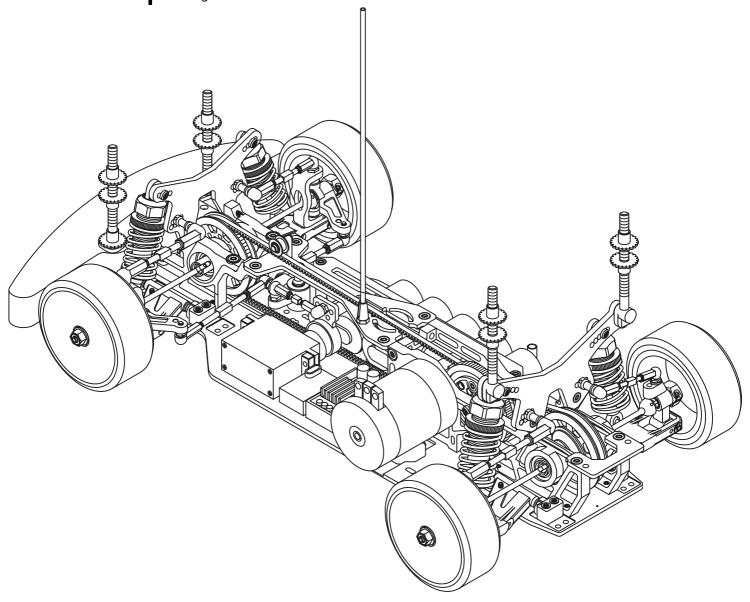




At Corally we use high-tech, quality engineering to provide you, the racers, with superior racing equipment. State of the art production methods and extensive R&D ensure that every Corally product sets the pace of development in the R/C competition world. We are not followers of fashion but leaders in innovation and development. RDX stands for Research and Development Xtreme. The RDX PHI 09 is the highest specification electric touring car on the market today.

Corally RDX PHI 09 Instruction Manual #01622

This manual will guide you through all steps to get your car running. For best result it is advised to read the manual completely before building the car.



Please note:

During assembly of the RDX PHI 09 you might find some extra small parts. These extra parts have been included for your convenience. They do not necessarily need to be used during assembly.

RDX PHI 09 Parts & Options

OPTION	1015	Diff balls 2.5mm - CHROME STEEL (10 pcs)
	1016	Diff balls 2.5mm - CERAMIC (10 pcs)
	10421 10425	Antenna tube and holder Antenna holder
	1121	Ball Bearings, Metal Shielded - 5 x 9 mm (1 pair)
	1122	Ball Bearings, Metal Shielded - 4 x 7 mm Flanged (1 pair)
	1124 1125	Ball Bearings, Metal Shielded - 1/4 x 3/8" (1 pair) Ball Bearings, Metal Shielded - 4 x 11 mm Flanged - (1 pair)
	1131	Ball Bearings, Metal Shielded - 10 x 15 mm (1 pair)
	1132	Ball Bearings, Metal Shielded - 5 x 8 mm (1 pair)
OPTION OPTION	1133 1151	Ball Bearings, Metal Shlelded - 3 x 6 mm (1 pair) Ball Bearings, Metal Shielded - CERAMIC - 5 x 9 mm (1 pair)
OPTION	1161	Ball Bearings, Metal Shielded - CERAMIC - 10 x 15 mm (1 pair)
OPTION	1162	Ball Bearings, Metal Shielded - CERAMIC - 5 x 8 mm (1 pair)
	11801 11802	Titanium Screws M3 x 6 mm - 2 mm Hex Flat Head - 6 pcs
	11803	Titanium Screws M3 x 8 mm - 2 mm Hex Flat Head - 6 pcs Titanium Screws M3 x 10 mm - 2 mm Hex Flat Head - 6 pcs
	11852	Titanium Screw Set RDX PHI '09 - 85 pcs Titanium Screws
	11960 11961	Steel Screws M2 x 5 mm - 1.5 mm Hex Pan Head - 6 pcs Steel Screws M2.5 x 6 mm - 2.0 mm Hex Pan Head - 6 pcs
	11962	Steel Screws M2.5 x 4 mm - 2.0 mm Hex Pan Head - 6 pcs
OPTION	11963	Steel Screws M2.5 x 6 mm - 1.5 mm Hex Flat Head - 6 pcs
	1238 1244	Cone Washers 10 x 4.2 x 0.5 mm - 10 pcs (For 08 RDX Phi Diffs) Steel Screws M3 x 6 mm - Torx 10 Flat Head - 10 pcs
	1244	Steel Screws M3 x 8 mm - Torx 10 Flat Head - 10 pcs
	1246	Steel Screws M3 x 6 mm - Torx 10 Round Head - 10 pcs
	1248 1249	Steel Screws M3 x 8 mm - Torx 10 Round Head - 10 pcs Steel Screws M3 x 10 mm - Torx 10 Flat Head - 10 pcs
	1253	Steel Nuts, M3 - 10 pcs
	1254	Aluminium Insert Nuts, M3 – Long – 4 pcs
OPTION	1256	Aluminium Locknuts, M3 Black - 10 pcs Aluminium Locknuts, M4 Black - Flanged - 4 pcs
	1257 1259	Aluminium Locknuts, M4 Black - Flanged - 4 pcs Aluminium Insert Nuts, M4 – 4 pcs (For Molded C-Hubs)
	1260	O-Rings 2,0x1,0 (10 pcs.)
	1280 2210	Steel washers 3x6 (10 pcs.) Setscrews M3 x 3 (5 pcs.)
	2215	Setscrews M3 x 12 (5 pcs.)
	75710	Body post nuts
OPTION OPTION	77165 79040	Diff Shims CF6 Wishbone, Front - Medium 5 - Improved design (1 pc.)
OPTION	79040	CF6 Wishbone, Front - Medium 5 - Improved design (1 pc.) CF6 Wishbone, Front - Medium 5 - Improved design (4 pcs)
OPTION	79050	CF6 Wishbone, Rear - Medium 5 - Improved design (1 pc.)
OPTION	790504 79060	CF6 WIshbone, Rear - Medlum 5 - Improved design (4 pcs) CF6 Wishbone, Front - Hard 35 - Improved design (1 pc.)
	790604	CF6 Wishbone, Front - Hard 35 - Improved design (1 pc.)
	79070	CF6 Wishbone, Rear - Hard 35 - Improved design (1 pc.)
OPTION	790704 79080	CF6 Wishbone, Rear - Hard 35 - Improved design (4 pcs) CF6 Wishbone, Front - X Hard 80 - Improved design (1 pc.)
OPTION	790804	CF6 Wishbone, Front - X Hard 80 - Improved design (1 pc.)
OPTION	79090	CF6 Wishbone, Rear - X Hard 80 - Improved design (1 pc.)
OPTION OPTION	790904 79109	CF6 Wishbone, Rear - X Hard 80 - Improved design (4 pcs) Wishbone - Molded 75 - X Hard (1 pc.)
OPTION	79109	Wishbone - Molded 75 - X Hard (1 pc.) Wishbone - Molded 75 - X Hard (4 pcs.)
	79111	Inner Hingepins (1 pair)
	79112 79113	Outer Hingepins (1 pair) Inner Hingepin Shims - White Nylon - 1,4 mm (10 pcs)
OPTION	79113	Inner Hingepin Shims - White Nylon - 0,5 mm (30 pcs)
	79116	Outer Hingepin E-Clips (10 pcs.)
OPTION OPTION	79117 79118	Outer Hingepin Shims 0,2 mm (10 pcs.) Outer Hingepin Shims 0,1 mm (10 pcs.)
OFTION	79132	Belt Gulde, Incl. 2 ball bearings & post
OPTION	79134	Front Belt S3M (210)
OPTION	79135 79137A	Rear Belt S3M (510) Rear Belt S3M (186)
01 11011	79136	Rear Belt S3M (213)
	79138	Front Belt S3M (507)
	79140 79141	Wheel Hex Adapter (1 Pair) - Duraluminium Narrow Wheel Hex Adapter (1 Pair) - Duraluminium
OPTION	79156	Front Spool with 42 teeth pulley - Delrin (1 pc.)
OPTION	79157	Front Spool with 36 teeth pulley - Delrin (1 pc.)
OPTION	79159 79169	Lightweight Front 1-way Outdrives - Duraluminium (1 pair) Front 1-way Outdrives - Steel (1 pair)
	79180	MIP CVD TM Driveshafts - Lightweight (1 pair)
OPTION	79180ST	MIP CVD TM Driveshafts - Steel (1 pair)
	79182 79182A	MIP CVD TM Bones - Lightweight (1 pair) MIP CVD TM Bones +2mm - Lightweight (1 pair)
OPTION	79182ST	MIP CVD TM Bones - Steel (1 Pair)
	79184	MIP CVD TM Wheel Axles (1 Pair)
	79184A 79185	MIP CVD TM Wheel Axles - Short -2mm (1 Pair) MIP CVD TM Couplings & Pins (1 Pair)
	79189	Replacement Caps for Driveshafts (1 Pair)
	791898	Replacement Caps for Driveshafts (4 Pairs)
	79220 79221	Shock Absorbers, Silver Hardcoated - Aluminium (1 pair) Shock Body Including shockcap & adjustment nut (1 pair)
OPTION	79221A	Short Shock Body (1 Pr)
	79222	Shock Pistonshaft incl. E-Clips (1 Pr)
OPTION	79224A 79224B	Shock Piston, Rounded - 1.3 mm holes (1 pair) Shock Piston, Rounded - 1.1mm holes (1 pair)
OPTION	79224C	Shock Piston, Rounded - 0.9 mm holes (1 pair)
OPTION	79225 79226	Shock Spring Collar - Ultra Low (1 pair) Shock Spring Adjustment Nut O-Ring 13x1 (1 Pr)
	79226	Shock Dlaphragm (1 Pr)
	79228	Shock Silicone O-rings with Spacers & Clip (1 Pr)
OPTION	79229 79230	Shock Collar with Ballends & Balls (1 Pr) Black Spring Set - Standard (6 Pair)
OPTION	79230	Silver Spring Set - Standard (6 Pair)
	79251	Steering Lever Posts (1 pair)
OPTION	79257 79258	Steering Lever (Horizontal ball type) - AL7075 (1 pc) Steering Lever (Horizontal Type) - Molded (1 pc.)
		Ball cups 5.8 mm - Nylon (2 pairs)
	79259	Ball cups 4.3 mm - Nylon (7 pairs)
	79260	
	79260 79261	Pivot Balls 4.3 mm, M3 x 2.5 mm - AL7075 (4 pcs)
	79260	
	79260 79261 79262 79263 79264	Pivot Balls 4,3 mm, M3 x 2,5 mm - AL7075 (4 pcs) Pivot Balls 4,3 mm, for inside front link - Hard steel (1 pair) Pivot Balls 4,3 mm, for inside rear link - Hard steel (1 pair) Pivot Balls 4,3 mm, M3 x 5,5 mm - Hard steel (4 pcs)
	79260 79261 79262 79263 79264 79265	Pivot Balls 4.3 mm, M3 x 2.5 mm - AL7075 (4 pcs) Pivot Balls 4.3 mm, for inside front link - Hard steel (1 pair) Pivot Balls 4.3 mm, for inside rear link - Hard steel (1 pair) Pivot Balls 4.3 mm, M3 x 5.5 mm - Hard steel (4 pcs) Pivot Balls 4.3 mm, M3 x 7.5 mm - Hard steel (4 pcs)
	79260 79261 79262 79263 79264	Pivot Balls 4.3 mm, M3 x 2.5 mm - AL7075 (4 pcs) Pivot Balls 4.3 mm, for inside front link - Hard steel (1 pair) Pivot Balls 4.3 mm, for inside rear link - Hard steel (1 pair) Pivot Balls 4.3 mm, M3 x 5.5 mm - Hard steel (4 pcs) Pivot Balls 4.3 mm, M3 x 7.5 mm - Hard steel (4 pcs) Pivot Balls 5.8 mm, M3 x 6.5 mm - Short - AL7075 (2 pcs) Pivot Balls 5.8 mm, M3 x 6.5 mm - Long - AL7075 (2 pcs)
	79260 79261 79262 79263 79264 79265 79267	Pivot Balls 4.3 mm, M3 x 2.5 mm - AL7075 (4 pcs) Pivot Balls 4.3 mm, for inside front link - Hard steel (1 pair) Pivot Balls 4.3 mm, for inside rear link - Hard steel (1 pair) Pivot Balls 4.3 mm, M3 x 5.5 mm - Hard steel (4 pcs) Pivot Balls 4.3 mm, M3 x 7.5 mm - Hard steel (4 pcs) Pivot Balls 5.8 mm, M3 x 6.5 mm - Short - AL7075 (2 pcs)

	700744	Tarabadha 00 ann Al 7075 Allin ail anns (4 a la
	79271A 79272A	Turnbuckles 28 mm - AL7075 - With adj. square (1 pair) Turnbuckles 33 mm - AL7075 - With adj. square (1 pair)
	79274	Turnbuckles 42 mm - AL7075 - With adj. square (1 pair)
OPTION OPTION	79277 79278A	Adjustment tool for new design turnbuckles with adj. square Steering Blocks incl. bushings, Narrow - AL7075 (1 pr.)
OPTION	79279A	Steering Blocks Incl. ball bearings, Narrow - AL7075 (1 pr.)
OPTION	79280 79281	Steering Blocks - Nylon (1 pair) Front C-Hub with O° caster, Left or right - AL7075 (1 pc.)
OPTION	79282	Front C-Hub with 2° caster, Left - AL7075 (1 pc.)
OPTION	79283	Front C-Hub with 2° caster, Right - AL7075 (1 pc.)
OPTION OPTION	79284 79285	Front C-Hub with 4° caster, Left - AL7075 (1 pc.) Front C-Hub with 4° caster, Right - AL7075 (1 pc.)
OPTION	79286	Front C-Hub with 6° caster, Left - AL7075 (1 pc.)
OPTION OPTION	79287 79288	Front C-Hub with 6° caster, Right - AL7075 (1 pc.) Front C-Hub with 3° caster, Left - AL7075 (1 pc.)
OPTION	79289	Front C-Hub with 3° caster, Right - AL7075 (1 pc.)
OPTION	79291 79294	Front C-Hub M5 Screw + Ballscrew - PHI09 TYPE (1 palr) Rear Uprights, Narrow - Vertical ball type - AL7075 (1 pc.)
OI HON	79296	Rear Uprights with 2° toe-in, Left - AL7075 (1 pc.)
OPTION	79297	Rear Uprights with 2° toe-in, Right - AL7075 (1 pc.)
OPTION	79298 79330A	Rear Uprights, Narrow with Horizontal Balls - AL7075 (1 pc.) Lower bumper - ReInforced nylon (Incl. 2 alum. Inserts)
	79336	Large Foam Bumper - X Hard
OPTION	79365 79383	Battery strap posts (1 palr) Low COG balancing weight, CHASSIS MOUNTED - 25 gram (1 pc.)
OPTION	79384	Low COG balancing weight, UNDER LIPO MOUNTED - 30 gram (1 pc.)
	79395A 79397	Servo posts, Lightweight - AL7075 (1 pair) Servo Posts - Molded - Including screws (1 pair)
	79400	Bodyposts for horizontal mounting (1 pair)
	79405	Bodyposts for vertical mounting (1 pair)
	79430 79432	Anti-roll bar clamps (1 palr) Anti-roll bar balls 5.8 mm - AL7075 - For CF6 arms (1 pair)
OPTION	79500	Motor Cooling Fan 30 mm (5 - 6 V) with universal plug
OPTION OPTION	79510 79515	Motor Guard / Fan Support - AL7075) Motor Cooling Kit (Motor Guard and Cooling Fan)
2	79604	Bulkhead, Front - AL7075 (1 pc.)
	79605	Bulkhead, Rear - Left - AL7075 (1 pc.)
	79606 79607	Bulkhead, Rear - Right - AL7075 (1 pc.) Bulkhead Center Brace, Rear - AL7075 (1 pc.)
	79620	Bearing Holders, Front - Molded (1 pair)
OPTION	79621 79622	Bearing Holders, Rear - Molded (1 pair) Bearing Holders, Rear - 260 mm WB - Molded (1 pair)
	79630	Steering Blocks - Molded (1 pair)
OPTION OPTION	79631 79632	Steering Blocks Φ09 with bushings – AL7075 (1 pair) Steering Blocks Φ09 with ball bearings – AL7075 (1 pair)
OI HOIL	79635	Rear Uprights - Molded (1 pair)
	79643 79646	Front C-Hubs - Molded - 3° Caster (1 pair)
OPTION	79655	Front C-Hubs - Molded - 6° Caster (1 palr) Front Spool (excluding pulley) - AL7075
OPTION	79667	Front 1-way (excl. pulley) - Incl. Steel Outdrives - AL7075
OPTION OPTION	79670 79671	Pulley 36 teeth for LW differential Pulley 36 teeth for duraluminium spool / front 1-way
	79672	Pulley 42 teeth for LW differential
	79673 79680	Pulley 42 teeth for duraluminium spool / front 1-way ST Differential Front/Rear – AL7075
	79681	ST Diff Outdrive, Short – AL7075
	79682 79683	ST Diff Outdrive, Long – AL7075 ST Diff Rebuild Kit incl. thrust bearing & M4 diff nut (1 pc.)
	79684	ST Diff Washers (1 pair)
OPTION OPTION	79685 79697	ST Diff nut wrench – 7 mm hex – Graphite (1 pc.) Bearing Holder Clips (4 pcs)
OPTION	79698	Bearing Holder, Front - Diff & Spool = Left / 1-Way = Right - AL7075
OPTION	79699	Bearing Holder, Front - Diff & Spool = Right / 1-Way = Left - AL7075
OPTION	79700 79701	Bearing Holder, Rear - Left (256 / 264 mm) - AL7075 Bearing Holder, Rear - Right (256 / 264 mm) - AL7075
OPTION	79702	Bearing Holder, Rear - Left (260 mm) - AL7075
OPTION	79703 79720	Bearing Holder, Rear - Right (260 mm) - AL7075 Wishbone Mounting Balls - Aluminium (4 pcs)
OPTION	79721	Wishbone Mounts - AL7075 - 0,5 (2 pcs)
OPTION	79722	Wishbone Mounts - AL7075 - 1,0 (2 pcs) Wishbone Mounts - AL7075 - 1,5 (2 pcs)
OPTION OPTION	79723 79724	Wishbone Mounts - AL7075 - 2,0 (2 pcs)
	79728	Wishbone Mounts - Molded - 0,5 / 1,0 / 1,5 / 2,0 (2 each)
	79729 79730	Wishbone Mount Shims 1 (0,6 mm) – Aluminium (10 pcs) Wishbone Mount Shims 2.5 (1.5 mm) – Aluminium (10 pcs)
	79742	Shock Tower Front - 2.9 mm Graphite (1 pc.)
OPTION	79743 79744	Shock Tower Rear - 2.9 mm Graphite (1 pc.) Shock Tower Rear, Low - 2.9 mm Graphite (1 pc.)
	79801	Layshaft with spacer - AL7075
OPTION	79807 79808	Center pulley for front or rear belt - 21 Teeth - AL7075 Spur Gear & Pulley Adapter - AL7075
	79809	Spur Gear Guide Ring - AL7075
OPTION OPTION	79810 79817	Front 1-Way/Spool Pulley Guide Ring - AL7075 Center pulley for front or rear belt - 17 Teeth - Delrin
OPTION	79817	Center pulley for front or rear belt - 17 Teeth - Deirin Center pulley for front or rear belt - 18 Teeth - Deirin
	79821	Center pulley for front or rear belt - 21 Teeth - Delrin
	79825 79832	Center pulley clip - Large - Black nylon (2 pcs) Upper Bumper Plate - 2.4 mm Graphite (1 pc.)
	79840	6-cell / LiPo Chassis - 2.4 mm Graphite (1 pc.)
OPTION	79841 79859	6-cell / LiPo Chassis - 2.0 mm Graphite (1 pc.) Topdeck - 2.4 mm Graphite (1 pc.)
	79864	Battery Strap - 2.4 mm Graphite (1 pc.)
OPTION	79870 79908	LiPo Battery Holders - Including screws (4 pcs)
OPTION	79908	Rear Bearing Holder Plate - 2.9 mm Graphite (1 pc.) Anti-roll bar set 1.0 mm, Black - Rear
OPTION	79912	Anti-ro∎ bar set 1.3 mm, Silver - Rear
OPTION OPTION	79913 79914	Anti-roll bar set 1.3 mm, Silver - Front Anti-roll bar set 1.6 mm, Brass - Rear
OPTION	79915	Anti-ro∎ bar set 1.6 mm, Brass - Front
OPTION OPTION	79916 79917	Anti-roll bar set 1.9 mm, Black - Rear Anti-roll bar set 1.9 mm, Black - Front
OPTION	79917	Anti-ro∎ bar wire 1.0 mm, Black - Rear
OPTION	79922	Anti-roll bar wire 1.3 mm, Silver - Rear
OPTION OPTION	79923 79924	Anti-roll bar wire 1.3 mm, Silver - Front Anti-roll bar wire 1.6 mm, Brass - Rear
OPTION	79925	Anti-ro∎ bar wire 1.6 mm, Brass - Front
OPTION OPTION	79926 79927	Anti-ro∎ bar wire 1.9 mm, Black - Rear Anti-ro∎ bar wire 1.9 mm, Black - Front
	80010	Diff Lube, White - For the large diff balls
	90086	Sticker Sheet - RDX PHI LOGOS (2 pcs.)

Tools required (included)

- High-Grip Torx Screwdriver - T 10

- Corally part #16081

- Silicone Shock Oil 20WT oil

- Corally part #80120

- Differential Grease

- Corally part #80010

Tools required (not included)

Corally Tool Set (#16070) containing:

- High-Grip Torx Screwdriver - T 10

- Corally part #16081

- High-Grip Hex Screwdriver - 1.5 mm

- Corally part #16082

- High-Grip Philips Screwdriver - PH 0

- Corally part #16085

- High-Grip Nut Screwdriver - 5.5 mm

- Corally part #16087

- High-Grip Nut Screwdriver - 6.0 mm

- Corally part #16088

- High-Grip Nut Screwdriver - 7.0 mm

- Corally part #16089

- Diff nut wrench - 7 mm hex - Graphite

- Corally part #79685

- Turnbuckle Tool

- Corally part #79277

- High-Grip Nut Screwdriver - 5.0 mm

- Corally part #16086

- Cutting Plier

- Long Nose Pliers

- Vernier Calipers or Precision Ruler

- Hobby Knife

Be careful with the sharp blade!

- Hobby Scissors

- Double-sided Tape

- Corally part #13085

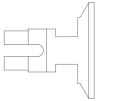
- Thread Lock

- Corally part #13095

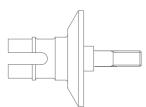
Items required to complete your car (not included)

- R/C two channel surface frequency radio system
- 7.4V Battery Pack (Lithium Polymer) / 6V or 7.2V Battery Pack (sub-C size)
- Battery Charger (with peak or temperature detection and/or for Li-Po application)
- Servo with Servo saver
- Electronic Speed Control
- Electric Motor
- Pinion gear (short boss), size to be determined by type and wind of motor being used.
- 1:10 Scale Lexan Body 190 mm
- Tires and wheels





1x Diff Output Shaft, Short



1x Diff Output Shaft, Long



1x Ball Bearing 1/4 x 3/8"



1x Ball Bearing 4 x 11 mm Flanged



2x Diff Washer



1x Diff Pulley 42T



18x 2.5mm Ball



2x Cone Washer 10x4.2x0.5



1x M4 Locknut

Bag 1 Differential

Step 1

LW Output Shaft, Long:

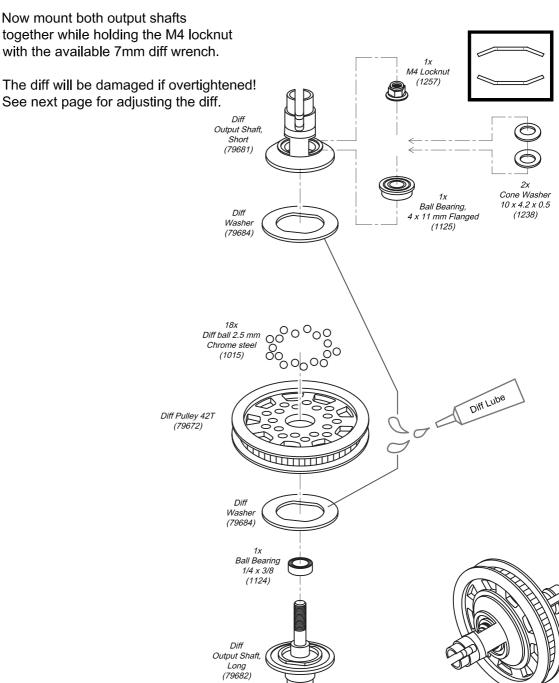
- Place one 1/4 x 3/8" ball bearing on the output shaft.
- Place a diff washer.
- Put some grease on the diff washer, but not too much.
- Now place the pulley on the 1/4 x 3/8" ball bearing
- Place the 2.5mm balls in the pulley.

Step 2

LW Output Shaft, Short:

- Place a diff washer.
- Put some grease on the diff washer, but not too much.
- Place a 4x11F ball bearing in the output shaft.
- Place the M4 locknut on top of the 4x11F ball bearing.
- Slide 2 cone washers 10 x 4.2 x 0.5 between the M4 locknut and the 4x11F ball bearing.





Step 2

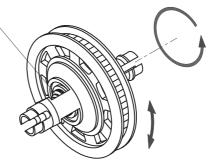
Differential Adjustment

The differential is an important component of your car. So build and adjust it very carefully.

The RDX PHI 09 #01622 has a rear differential and front one-way.

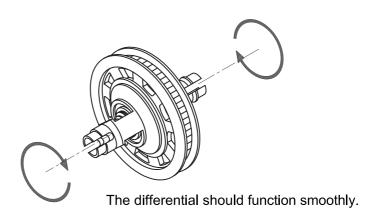
Hold the M4 nut in the output shaft with a 7 mm wrench.

(part #79685)



Differential adjustment.

The differential should be carefully adjusted by holding the M4 nut using a 7 mm wrench (*Corally part #79685*). Overtightening the M4 nut might damage the bearings, balls and washers in the differential! To test for the correct adjustment, hold both output shafts and try to spin the pulley. If the pulley slips without using extreme force, it means the diff is too loose and needs to be tightened some more by turning the M4 nut.





1x One-way Hub with pre-assembled 1-way bearings



2x LW 1-way Outdrive



1x One-way Pulley 42T

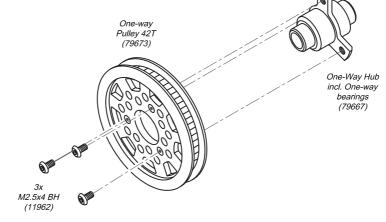


3x M2.5x4 BH

Bag 2 Front One-way

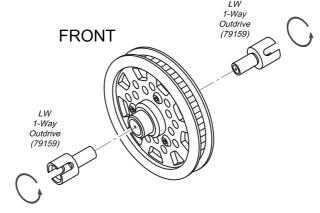
Step 1

Mount the pulley on the one-way hub.



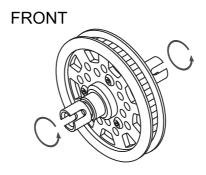
Step 2

Now slide the outdrives in the one-way bearings. Make sure that they rotate in the right direction.



Step 3

The outdrives have to rotate smoothly in forward direction only.





2x Wishbone Mount 2,0



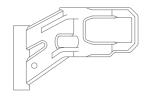
2x Wishbone Mount 1,5



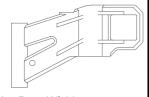
2x Wishbone Mount 1



2x Wishbone Mount 0,5



2x Front Wishbone



2x Rear Wishbone



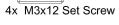
8x Wishbone Mounting Ball



16x M3 Insert



16x M3x6 FH





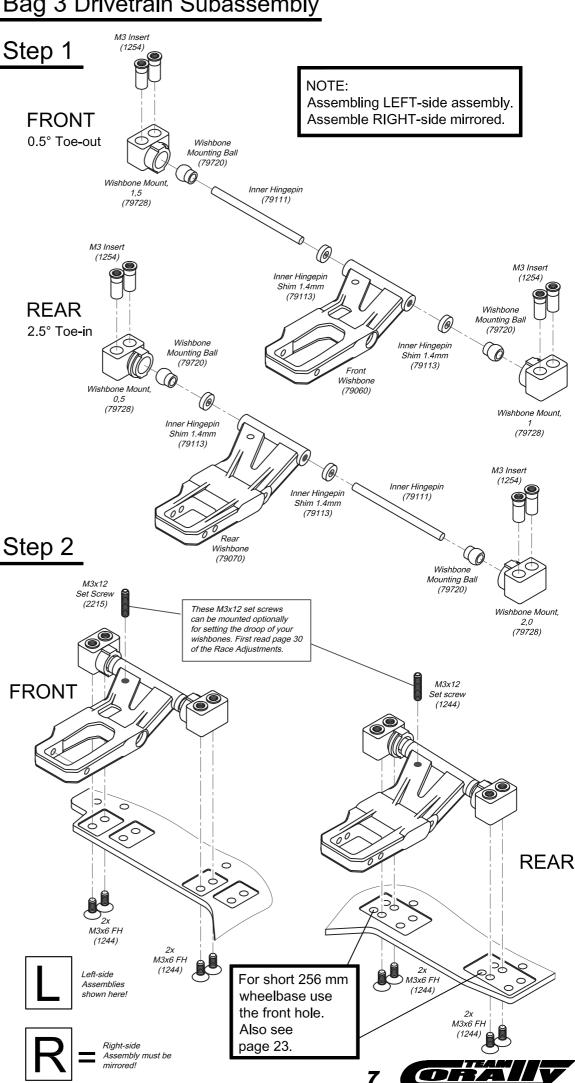
8x Inner Hingepin Shim 1.4 mm (White Nylon)

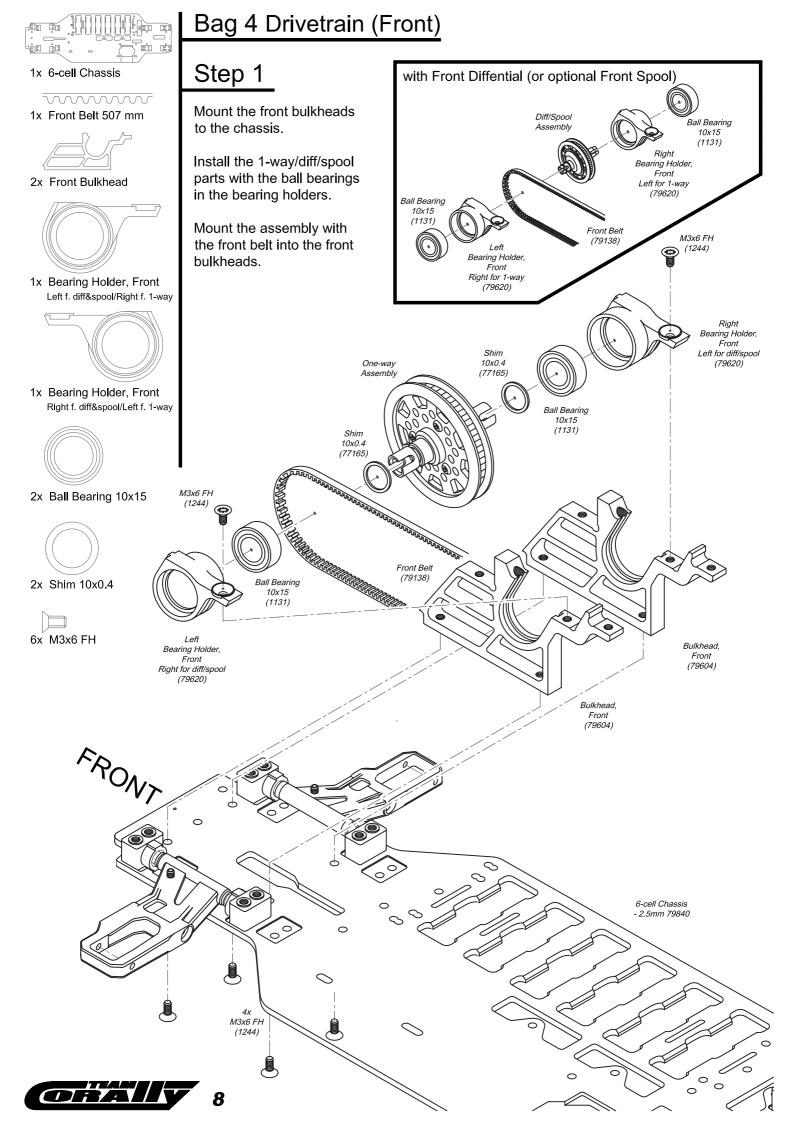
Included for fine-tuning



4x Inner Hingepin Shim 0.5 mm (White Nylon)

Bag 3 Drivetrain Subassembly



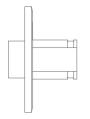




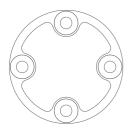
1x Layshaft



2x Center Pulley



1x Spur Gear Adapter



1x Spur Gear Guide Ring



1x Black Nylon Clip



1x 78T / 48dp Spur Gear



1x Spacer 5x0.8



2x Ball Bearing 5x8x2.5



4x M3x6 FH

Bag 4 Center Pulley Assembly

Step 2

Install a ball bearing on each side of the spur gear adapter.

spur gear adapter.

Slide the two center pulleys over the adapter.

Lock the pulleys with the black nylon clip.

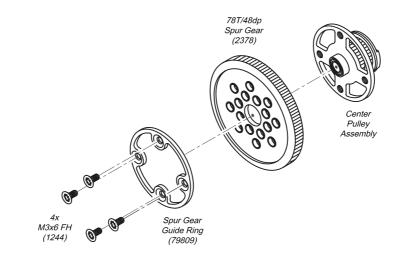
Ball Bearing
5x8
(1132)

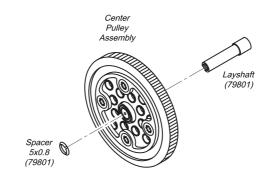
Ball Bearing
5x8
(1132)

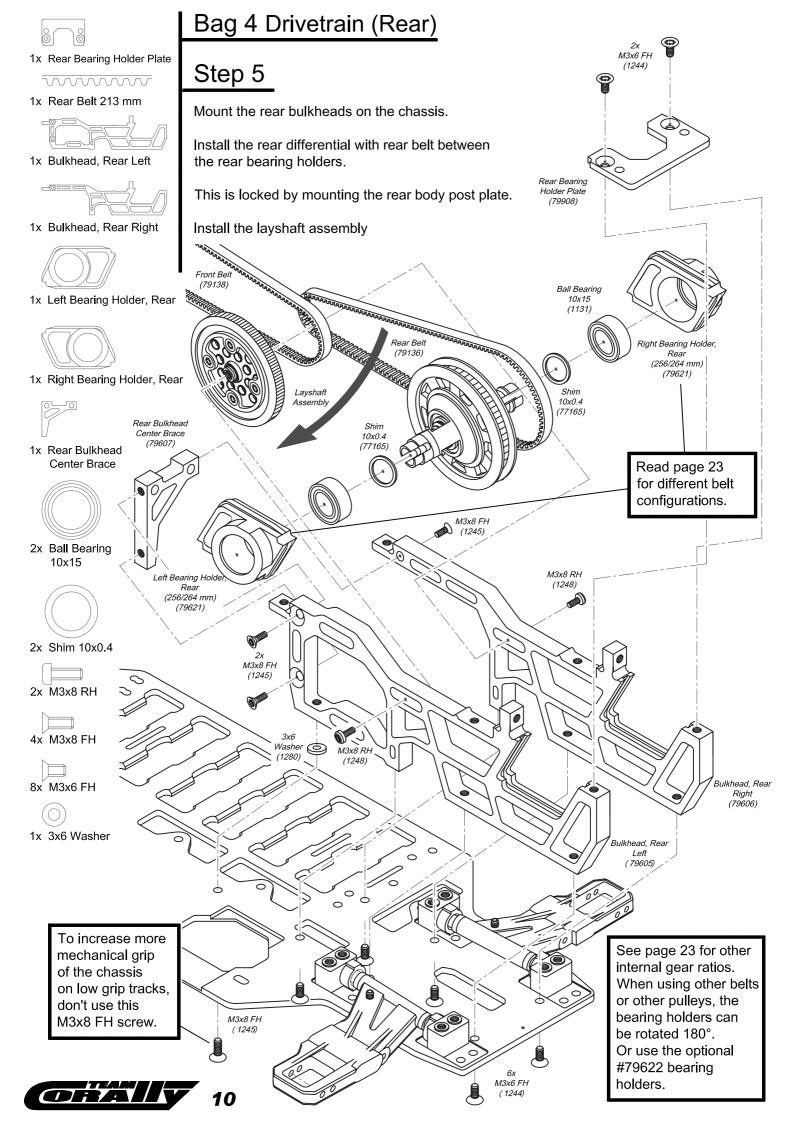
Spur Gear Adapter (79808)

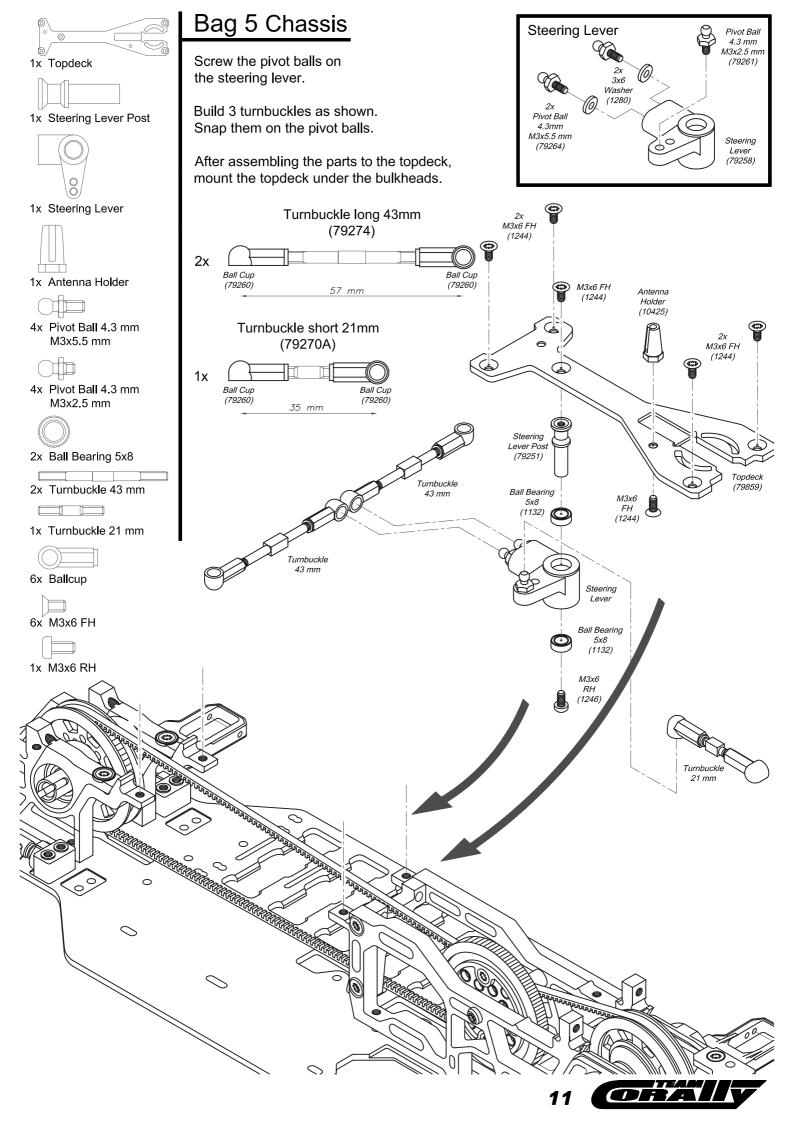
Step 3

Attach the spur gear by using the spur gear lock ring.











1x Front Shock Tower



1x Front Bumper with alu inserts



2x Pivot Ball 4.3mm Front Camber Link



3x M3x8 FH



2x M3x6 FH



3x M3 Nut



2x 3x6 Washer

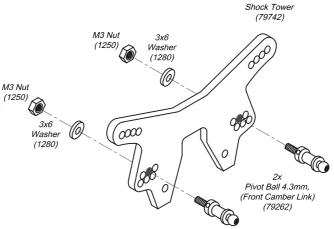
Bag 5 Chassis (Front)

Step 1

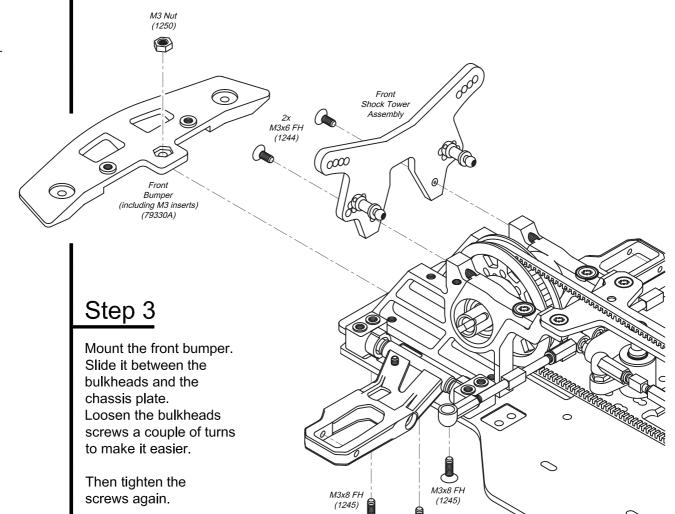
Mount the pivot balls for the camber links to the shock tower.

Step 2

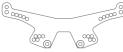
Mount the shock tower assembly to the front bulkheads.



Front



M3x8 FH (1245)



1x Rear Shock Tower



2x Pivot Ball 4.3mm Rear Camber Link



2x M3x6 FH



2x M3 Nut



2x 3x6 Washer

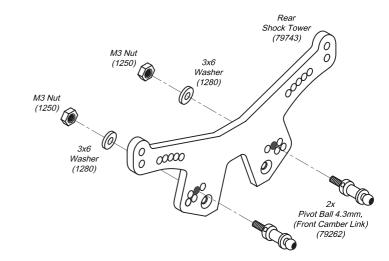
Bag 5 Chassis (Rear)

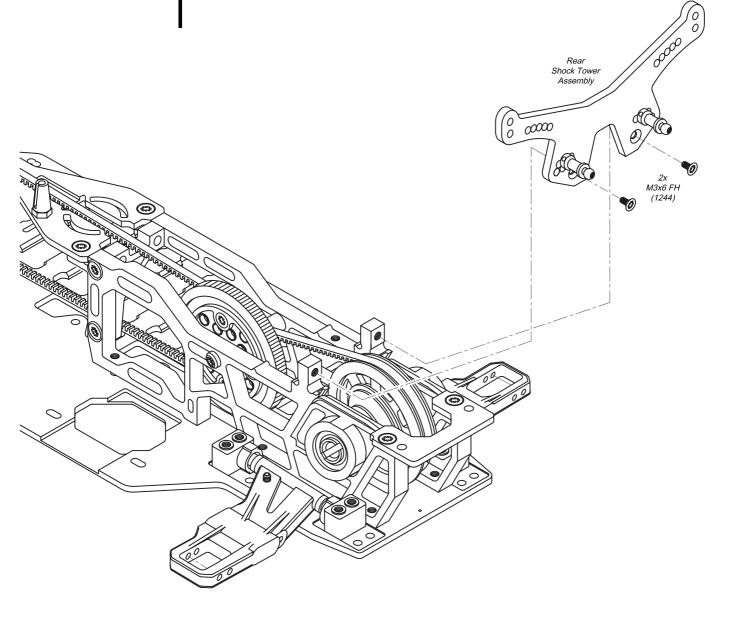
Step 1

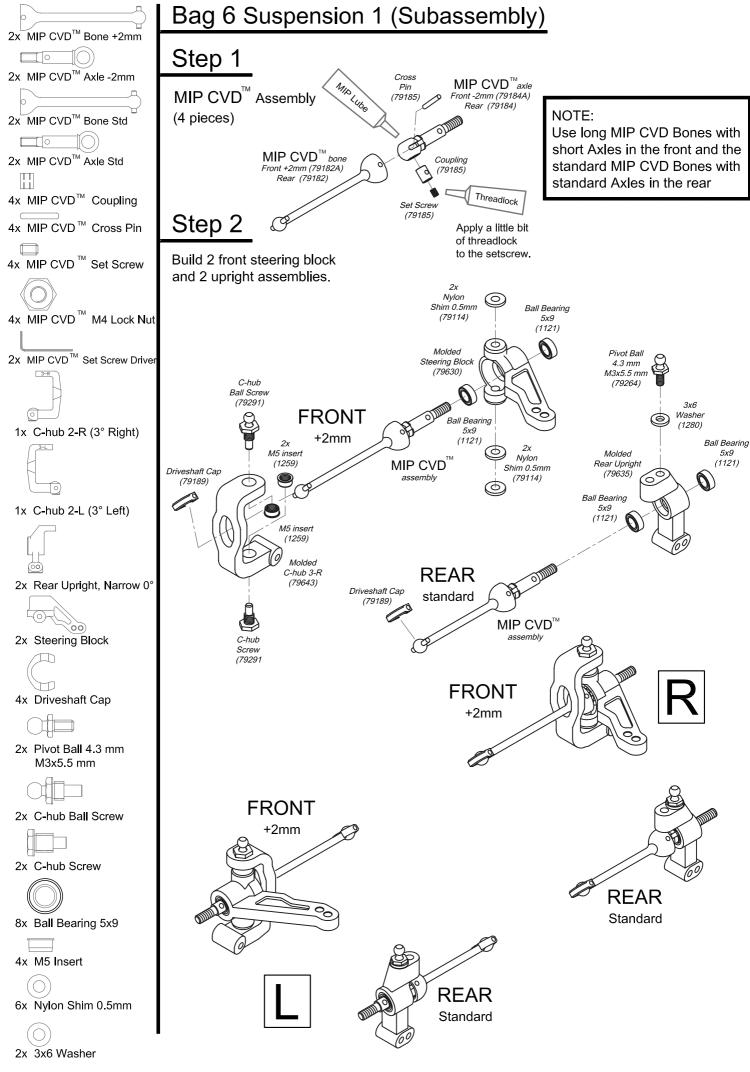
Mount the pivot balls for the camber links to the shock tower.

Step 2

Mount the shock tower assembly to the rear bulkheads.









2x Pivot Ball 4.3 mm M3x5.5 mm

Quiter Hingenir

2x Outer Hingepin



2x M3x3 Set Screw

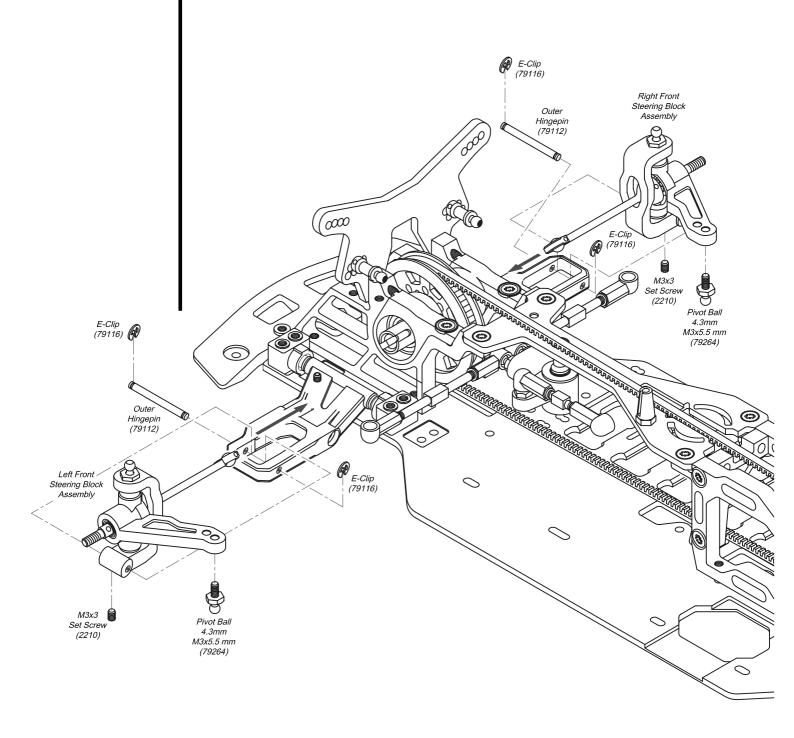


4x E-clip

Bag 6 Suspension 1 (Front)

Step 1

Mount the front steering block assemblies to the wishbones by using the outer hingepins. Lock the hingepin with a set screw. The hingepins can also be locked with the e-clips.



2x Outer Hingepin

2x M3x3 Set Screw

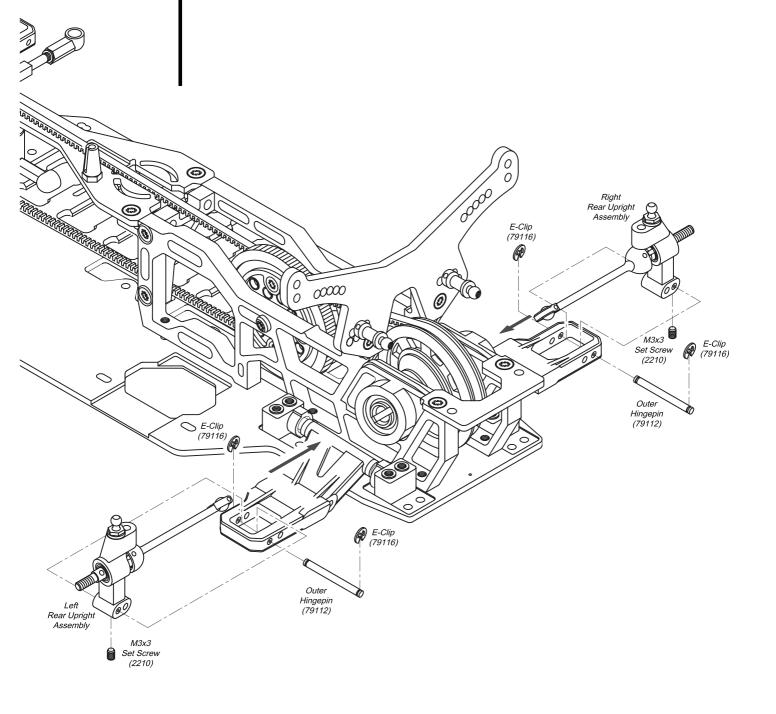
4x E-clip

Bag 6 Suspension 1 (Rear)

Step 1

Mount the rear upright assemblies to the wishbones by using the outer hingepins.

Lock the hingepin with a set screw. The hingepins can also be locked with the e-clips.



4x Shock Body



4x Spring Adjustment Nut



4x 13x1mm O-ring



8x Silicone O-ring



4x Shock Cap



4x Shock Top



4x Piston



4x Spring Collar



4x Ball End



4x Shock Diaphragm



4x Spring Clip



8x E-clip



4x Spring 17.0 lbs



4x Small Delrin Spacer

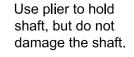


4x Large Delrin Spacer

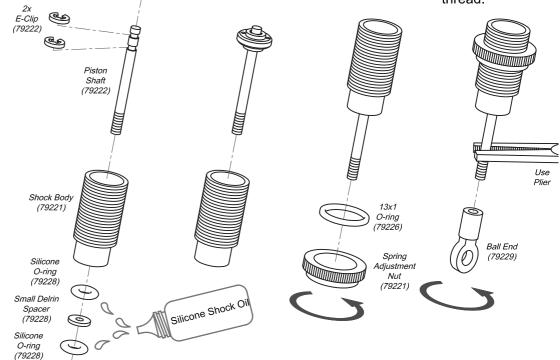
Bag 7 Suspension 2 (Shocks) - PRE-ASSEMBLED

NOTE: NO OIL in pre-assembled shocks

Build 4 identical Shock Absorbers (79220). Build them very carefully.



Grip it close to thread.



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



Large Delrin

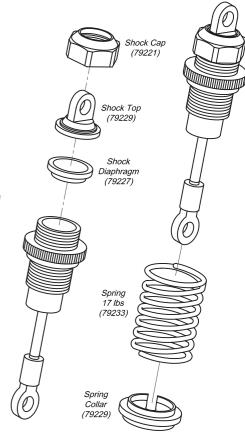
Spacer (79228)

Spring Clip

(79228)

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

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

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

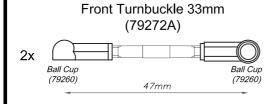
2x Turnbuckle 33mm 4x Ball Cup 2x Pivot Ball 5.8 mm Short 2x Pivot Ball 5.8 mm

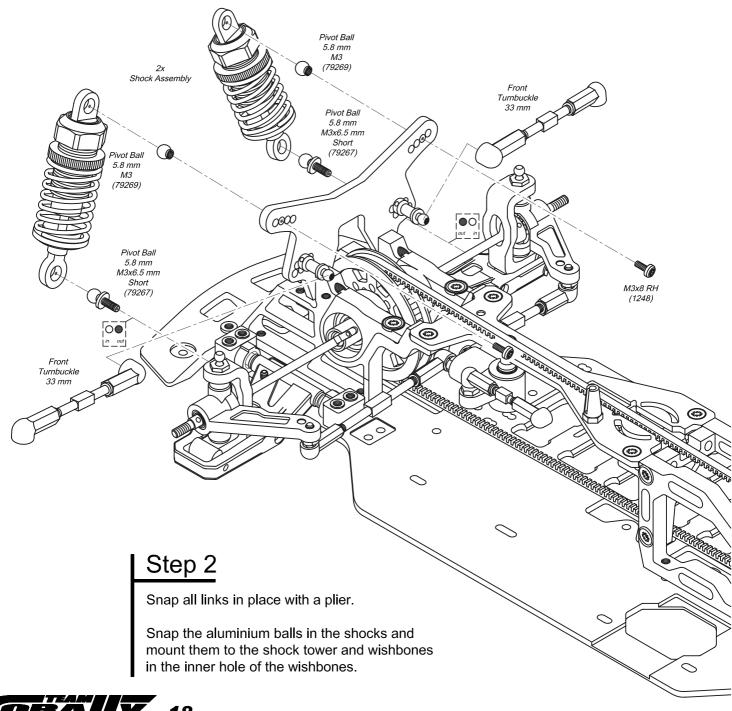
2x M3x8 RH

Bag 7 Suspension 2 (Front)

Step 1

Assemble 2 Turnbuckles as shown.





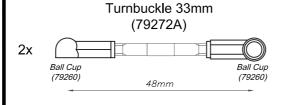


2x M3x8 RH

Bag 7 Suspension 2 (Rear)

Step 1

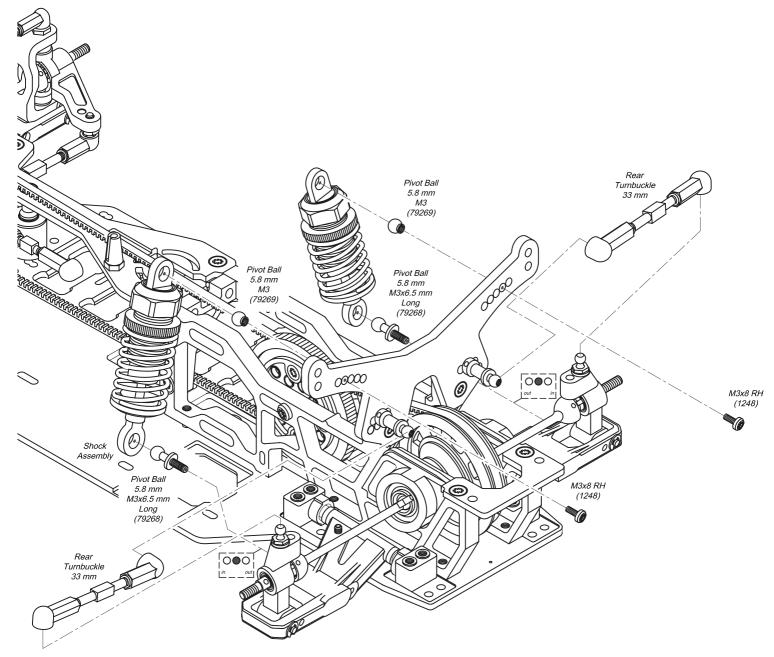
Assemble 2 Turnbuckles as shown.

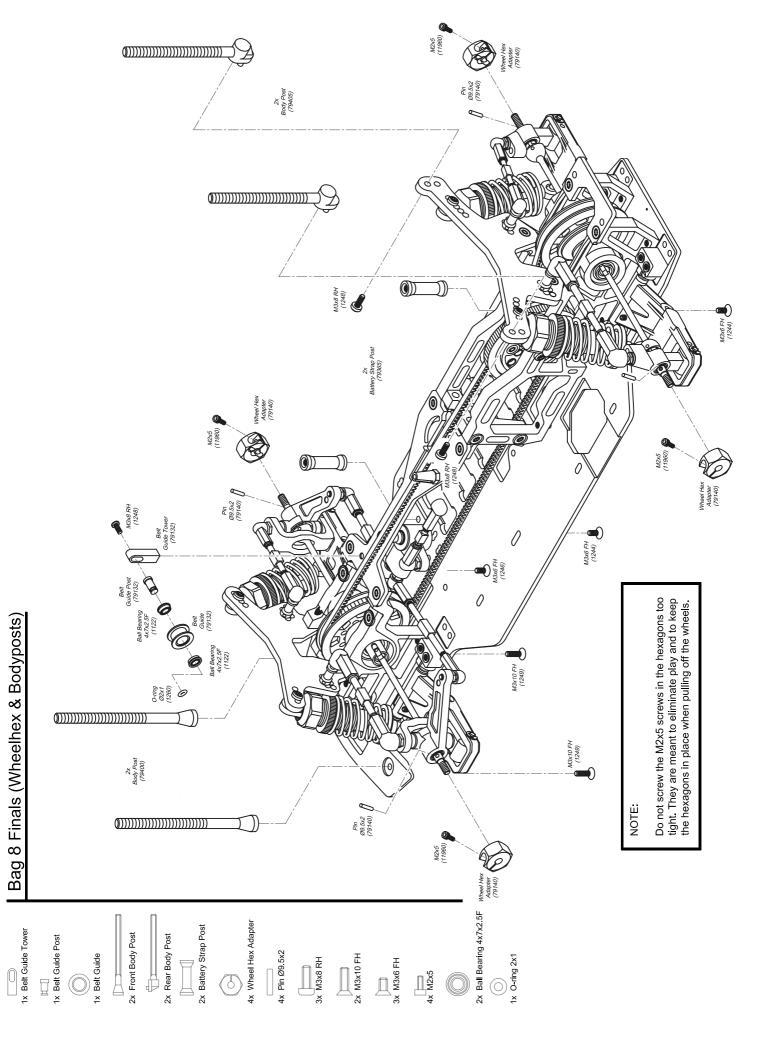


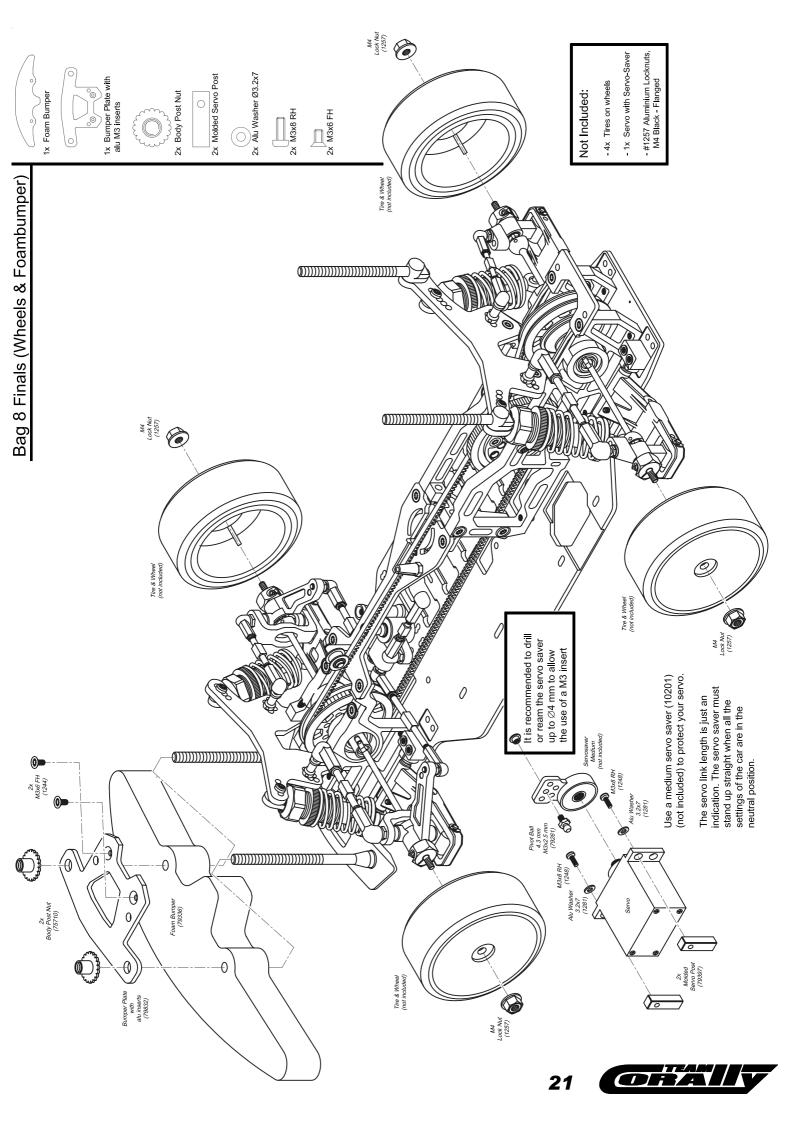
Step 2

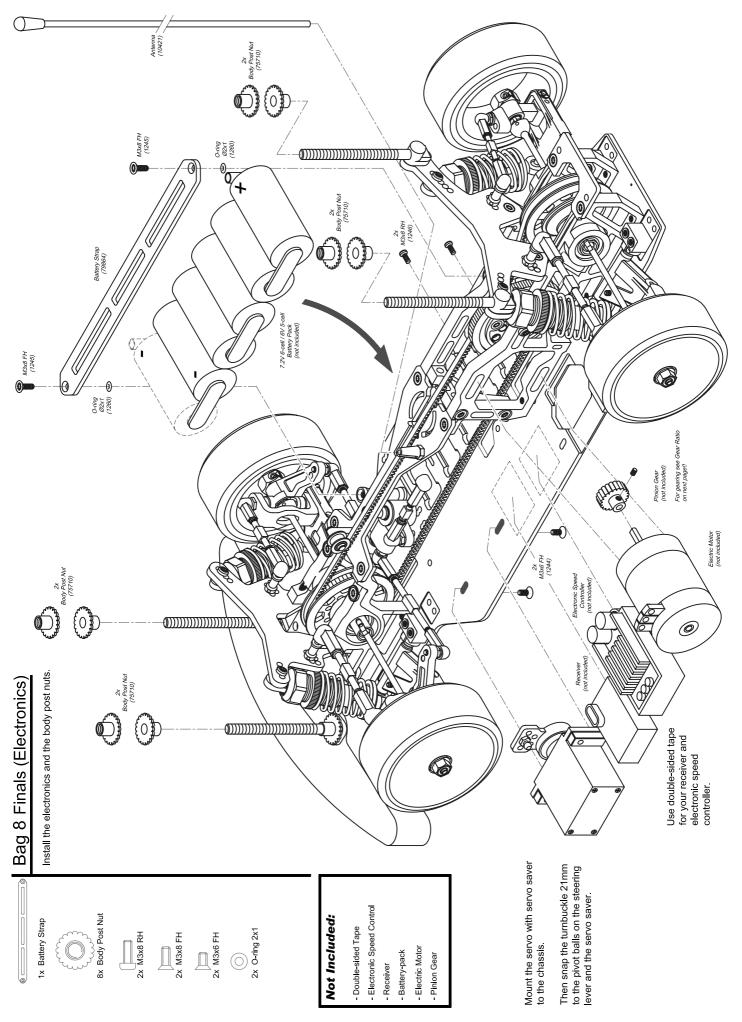
Snap the rear turnbuckles in place with a plier.

Snap the aluminium balls in the shocks and mount them to the shock tower and in middle hole of the wishbones.









Gear Ratio Charts

The RDX Phi has several internal ratio options.

-2,00:1 - Standard 507 mm | 213 mm belts with 42T | 21T pulleys
-2,00:1 - Optional 510 mm* / 210 mm* belts with 42T / 21T pulleys
-2,47:1 - Optional 507 mm / 186 mm* belts with 42T / 17T pulleys (turn Bearing holders 180° for 256 mm belt configuration)

42T | 21T Pulleys (standard)

108T

104T

100T

987

64dp

81T

78T

48dp

#24104 12.24 11,56 10.40

#24100

#24098 11.53 10,89

#2381

#2378

12.00 11.37 10.80 10,29

11 11

18 20 22

11,57 10.13

11.14 10.40 9.75 9.18

4

12.46 10.80 9.53 9.00 8.53 8.10 7.71 7.36 6.75 6.23 00.9 5.78 5.59 5.40 5.22 90'9

12.00

13 15 17

10.95

10.31

19 21 23 24

12.71

11.76 10.53

42T | 18T Pulleys (optional)

 Optional 510 mm / 186 mm* belts with 42T / 18T pulleys (turn Bearing holders 180° for 256 mm belt configuration)
 Optional 507 mm / 186 mm* belts with 36T / 18T pulleys
 Optional 507 mm / 186 mm* belts with 36T / 21T pulleys (use Bearing holders #79622 for 260 mm belt configuration) -2,33:1 -2,00:1 -1,71:1

42T / 17T Pullevs (optional)

14.20

13.58 15.09

> 12.84 13.52

> > 12.35 11.76

20 22 23

11.53 11.00 10.52

11 77

11.33 10.70

14.04

13.53 12.91 12.35 11.84 10.93 10.52 10,14

12.94 12.35 11.81 11,32 10.45 10.06

> 12.12 11.60

11.67 10.70 10.27

11.23 10.29

11.17 12,23

10.73

10.14

9.82 9.39 9.00 8.64 8.31 8.00 7.71 7.45 7.20 6.97 6.75 6.55 6.35 6.17 00'9 5.84 5.68

9.45

9.09 8.33

8.91 8.17

8.67 8.21 7.80 7.09

18 19 20 22

8.70 8.00 7.70 7.14 29.9 6.45 90.9 5.71 5.56 5.40 5.26

9.90 9.04

9.52

10.00

9.80 9.33 8.52

16

8.32 8.00 7.70 7 17

7.84 7.74 2,00 6.53

25 56 28 30 32 33 34 35 36 37 38 6

7.42 6.78 6.50 00.9 5.78 5.38 5.03

21 23 24 56

8.67

6.50 6.11

6.25 5.88

5.57 5.20

28

27

29

5.94 5.60 5.44 5.16 4.90

7.43 6.93 6.71 6.30 5.94 5.78 5.47

7.41 6.90

7.26 92.9 6.32 6.13 5.76

7.04

29

6.48

6.24

25

9.63

15.78

14.27

13,72 13.00

13.45 12.10

18

14.29 13.34 12.50 11.12 10.53 10,00

13,76 12.04

12.84

14.82

13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 35

12.74

19 21

14.23

#24115

#24110

#24108 15.69 14.82 13.34 12,70

#24104 15.11

#24100 14.53

#24098

#2381 15.39

#2378

104T

100T

98T

64dp

81T

78T

48dp

11.36

10.87

10.67 10.26

9.88

25

9.53 60.6 8.33 7.69

9.17 8.26 8.03

9.88

9.50

9.31 8.96 8,64 8.35 8.07 7.81 7.56 7.33 6.52 6.72 6.54 6.37 6.20

11.11

10.08 9.68

24 56 27 28 29 31

9.16

8.61

7.49

33

06.9 6.70 6.45

7.14

7.41

6.88 6.64

7.41 6.64 6.42 6.21

7.71

7.26

7.12

7.72

8.33 7.85

8.29

96.7

8.23

30 32 34

9.79 9.47 8.88 8.35

9.20

9.70 9.37 90.6 8.76 8.49 8.23 7.99 7.76 7.54 7.34 7.15 26.9

9.88 9.53 8.90 8.60 8.08 7.62 7.41 7.02

9.51 9.17 8.86 8.56 8.03 7.78 7.55

9.15

8.70 8.00

8.37

8,82

8.52

8.12 7.89

7.33 7.14

2.06 98.9 6.50

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36

6.25

5.83

7.68 7.46

7.21 6.84

6.94 6.59 9.79

6.68 6.33

38

37

7.10

6.79

29.9

6.18 6.42

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40

5.98 6.29 6.41 6.70

5.83

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5.75

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39

5.62 5.33

5.30 5.03

4.88

31

30

39

7.28

115T 4	4	48dp	78T	81T	64dp	98T	100T	104T	108T	110T	115T
#24115			#2378	#2381		#24098	#24100	#24104	#24108	#24110	#24115
13.53	٦,	13	13.98	14.52	17	13.43	13.71	14.25	14.80	15.08	15.76
12.78	Ť	14	12.98	13.48	18	12.69	12.94	13.46	13.98	14.24	14.89
12.11	1;		12.12	12.58	19	12.02	12.26	12.75	13.24	13.49	14.10
11.50 16	16		11.36	11.80	20	11.42	11.65	12.12	12.58	12.82	13.40
10 95	17		10.69	11.10	21	10.87	11.09	11.54	11.98	12.20	12.76
10.45	18		10.09	10.49	22	10.37	10.59	10.87	11.44	11.65	12.18
10.00	19		9:26	9.93	23	9.93	10.13	10.53	10.94	11.14	11.65
9.58	20		60.6	9.44	24	9.39	9.71	10.09	10.49	10.68	11.16
9.20	21		8.65	8.99	25	9.14	9.32	69.6	10.07	10.25	10.72
8.85	22		8.26	8.58	56	8.78	8.96	9.32	89'6	98'6	10.31
8.52	23		06.7	8.20	27	8.46	8.63	8.97	9.32	9.49	9.92
8.21	24		75.7	7.87	28	8.16	8.32	8.65	8.99	9.15	9.57
7.93	25		7.27	7.55	29	7.87	8.03	8.36	89.8	8.84	9.24
7.67	26		66.9	7.26	30	7.61	7.67	8.08	8.39	8.54	8.93
7.42	27		6.73	6.99	31	7.36	7.52	7.82	8.12	8.27	8.64
7.19 28	28		6.40	6.74	32	7.14	7.28	7.57	7.87	8.00	8.37
6.97 29	59		6.27	6.51	33	6.92	7.06	7.25	7.63	7.77	8.12
6.76 30	30		90.9	6.29	34	6.72	6.85	7.13	7.40	7.54	7.88
6.57 31	31		5.86	6.09	35	6.52	6.66	6.92	7.19	7.32	7.66
6.39	32		5.68	5.90	36	6.34	6.47	6.73	66.9	7.12	7.44
6.22					37	6.17	6.30	6.55	6.80	6.93	7.24
6.05					38	6.02	6.13	6.38	6.62	6.75	7.05
2.90					39	5.85	2.97	6.21	6.45	6.57	6.87

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10.93 10.35

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98.6 8.82 7.98 7.29 86.9 6.44

9.88 9.00 8.47 8.08

9.50 9.00

9.31 8.38 7.62

9.89 9.23 8.15 69.7 7.29 6.92 6.30 6.02

9.53 8.89

13 4 15

19

#24104

#24100

#24098

#2381 10.65

#2378 10.26

78T

48dp

108T

104T

100T

987

64dp

36T / 21T Pulleys (optional)

9.36 8.94 8.55 8.19 7.56

8.96 8.55

8.14

7.77 7.29 6.98

22 23 24 25 56 28 29

9.83

9.90

9.72 9.23 8.79 8.39 8.03 7.70 7.39 7.10 6.84 09.9 6.37 6.16 5.96 5.77 5.60 5.43 5.28 5.13 4.99 4.86 4.74 4.62

8.55

8.55

20 2

8.66

8.34 7.84 7.41 7.02 29.9 6.35 5.80

16 17 18

_	Ľ	48dp	787	817	64dp	186	100T	104T	108T	110T
_			#2378	#2381		#24098	#24100	#24104	#24108	#24110
_		13	12.00	12.46	17	11.53	11.76	12.24	12.71	12.94
_	<u> </u>	14	11.14	11.57	18	10.89	11.11	11.56	12.00	12.22
_		15	10.40	10.80	19	10.31	10.53	10.95	11.37	11.58
_	<u> </u>	16	9.75	10.13	20	9.80	10.00	10.40	10.80	11.00
_	<u> </u>	17	9.18	9.53	21	9.33	9.52	9.90	10.29	10.48
_		18	8.67	9.00	22	8.91	60'6	9.45	9.82	10.00
_	<u> </u>	19	8.21	8.53	23	8.52	8.70	9.04	9.39	9.57
_		20	7.80	8.10	24	8.17	8.33	8.67	00.6	9.17
_		21	7.42	7.71	25	7.84	8.00	8.32	8.64	8.80
_		22	60.7	7.36	56	7.74	02.7	8.00	8.31	8.46
_		23	82.9	7.04	27	7.26	7.41	7.70	8.00	8.15
_		24	6.50	6.75	28	00.7	7.14	7.43	12.7	7.86
_		25	6.24	6.48	29	92'9	06'9	21.7	7.45	7.59
		56	00'9	6.23	30	6.53	29'9	6.93	7.20	7.33
_		27	2.78	6.00	31	6.32	6.45	12.9	26'9	7.10
		28	2.57	5.78	32	6.13	6.25	05.9	6.75	6.88
_		29	5.38	5.59	33	5.94	90'9	08.9	9:22	6.67
		30	5.20	5.40	34	92'5	88'5	6.11	6.35	6.47
		31	5.03	5.22	35	09'5	12.5	5.94	6.17	6.29
_		32	4.88	5.06	36	5,44	99'9	82'5	00'9	6.11
_	I				37	5.30	5.40	5 62	5 84	5.95

7.87 7.28 7.02 6.56

7.52 26.9

6.84

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6.70 6.20 5.99 5.59

09.9

20 22 24 52

19

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23

6.20 6.11 5.89 5.52 5.34 5.18 5.34

27

8.18 7.84 7.23

7.73 7.41 7.14 6.59 6.35 6.78 6.34 6.14

6.49

6.13 5.74

5.78 5.40 5.24 5.08 4.93

5.54 5.33

5.77

5.56 5.33 4 94 4.76

5.93

5.70

30 31

5.13

56

5.13 4.95 4.78 4.62 4.33

27 28

6.27

6.07 5.70 5.53 5.23

5.88

5.56 5.39 5.23 5.08 4.81

32 33 34 35 36 38 39 4

6.72

Radio adjustments

- Turn the transmitter on.

13.53 12.78 12.11 11.50 10.95 10.45 10.00

- Make sure the motor is disconnected.
- Connect your battery pack.
- Turn the power switch on.
- turn the steering control to the left, the wheels should move - Make sure the wheels move in the right direction. If you to the left. If you turn the steering control to the right, the wheels should move to the right.

9.58 9.20 8.85 8.52 7.93 7.42 7.19 92.9 6.39

- Adjust the servo link so your servo saver is rising upwards.

8.21 7.67

- Using the two steering turnbuckles, adjust the front wheels so they are pointed straight up.
- Adjust the Electronic Speed Controller according to your speed control manual. Turn off the power switch.

6.97 6.57 6.22 6.05

- anything. Turn on the power switch and check the settings of the ESC and steering. Turn the power switch off again. Connect the motor. Be sure that the wheels do not touch
- The transmitter is always the FIRST TO BE TURNED ON and THE LAST TO BE TURNED OFF.

5.90

5.64 5.79 5.50

5.54 5.68

5.33 5.47

5.13 5.26

5.03 5.16 4.90

39 4 38

5.46

4.94

4.75

4.66

4.88

4.79 4.53

4.47

4.30

4.17

35

4.62 4.50

37

5.37

4.95 4.82

4.68 4.56

4.38

4.29

4.41

4.70

4.45

4.27

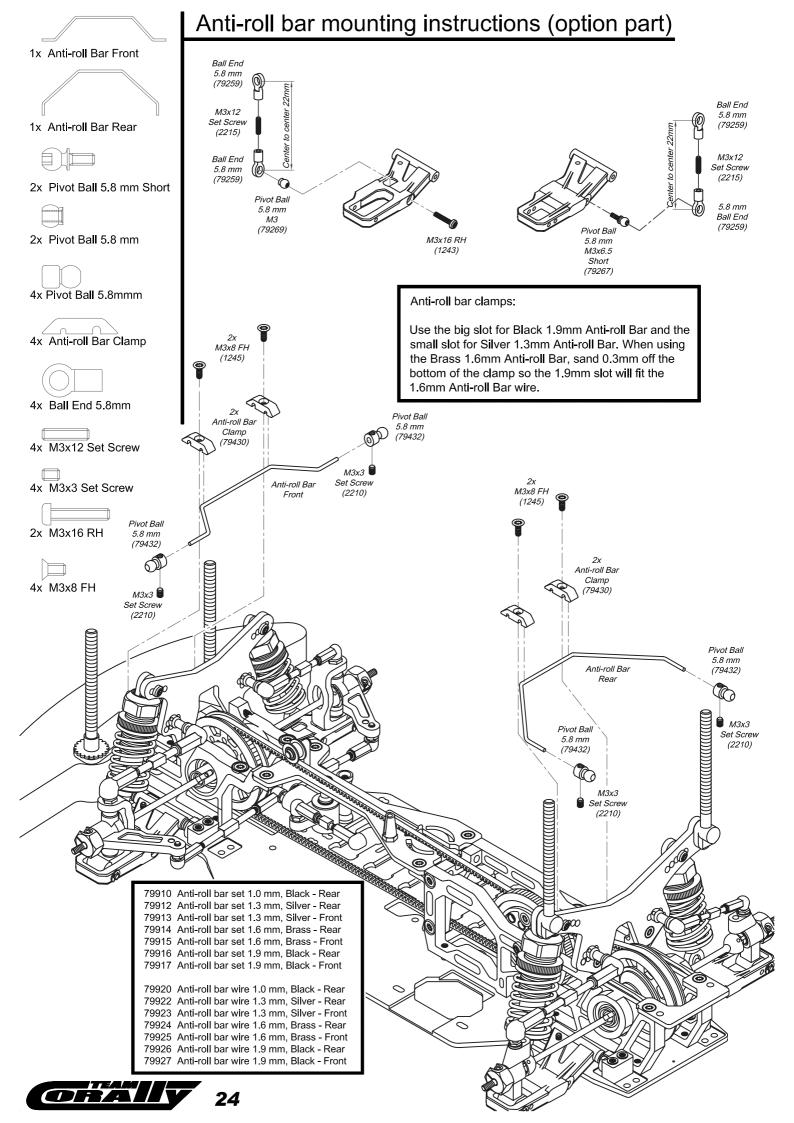
4.19

5.08

5.96 5.78 5.62

4.50 4.45

29 30



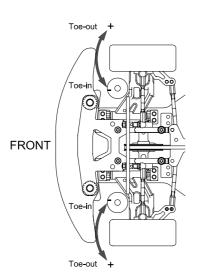


Race adjustments:

Your RDX PHI 09 Touring Car comes with many possible geometry adjustments, shock adjustments, camber changes, etc. The standard setup in this manual is a good starting point to begin with. For optimising your car's performance, improvements can be made with the following tuning tips. Always make one step at a time, and see if there are any improvements or the performance is getting worse. On **www.corally.com** you can download the latest setup sheets from Team Corally to help you find a good setup.

Front toe-in | toe-out:

Setting toe-in of the front wishbones in the center of the car will make the suspension work better on bumpy conditions. Toe-out will give a better steering response and stability.



Toe-in:

Stabilizes the car on the straight, and coming out of the corners.

It smoothes out the steering response, making the car easier to drive.

It can make the car turn in a little more in the middle and exit part of a corner.

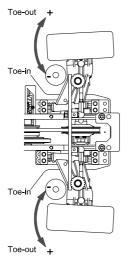
Toe-out:

Increases turn-in steering a lot.

But can make the car very nervous on the straight. More than 1° of front toe-out make the front even more nervous, so it's better not to use more than 1° toe-out.

Adjust for neutral feeling 0° toe. A slight amount of toe-out will increase the turn-in of the car but too much of it will make the car difficult to drive. [min. = -1 / max. = +1]

Rear toe-in:



Toe-in:

This is one of the most sensitive adjustments! One degree goes a long way. Stabilizes the car greatly. It makes the rear end "stick". The more toe-in you use, the more the rear of the car sticks. This becomes especially apparent going in and coming out of the corners.

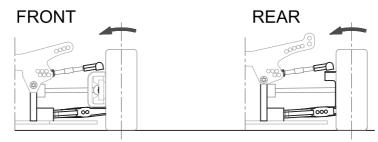
But more toe-in make more difference between sticking and breaking loose. Large amount of toe-in (2.5°... 3°) scrub off a little speed on the straights.

Toe-out:

Rear toe-out is never used. It makes the rear of the car very unstable.

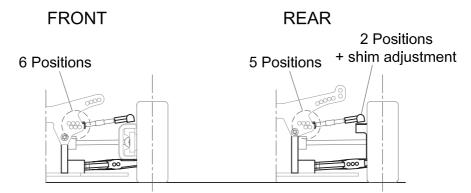
Toe-in is set standard on 2.5° in the rear with the coupler clamps. To increase or decrease toe-in in the rear, use the optional wishbone mounts #1.0 and #1.5 to set more or less toe-in. [min. 0 / max. 3]

Camber:



Camber is best set when the contact patches of the tires are is always as big as possible. So with a stiff suspension and firm tires you'll need less camber than with soft suspension or tires with big, flexible sidewalls. If the tire wear evenly across their contact patches, the camber is about right. When using camber on the front in combination with caster blocks something must be kept in mind. Caster will cause camber in the front when steering and the front will lift up. [min. 0 / max. 2]

Camber Link Locations:



The RDX Phi 09 has a couple of camber-link locations. We recommend to start off by mounting the camber links in 1 of the lower positions on the shocktower. This will give more camber-change while cornering, thus stability. The longer or higher the link, the more traction and less stability. The shorter or lower the link, the less traction and greater stability.

Long Link: A long link gives a lot of body roll in turns. It feels as if the body is willing to keep on rolling until it can't, but the springs prevent it from rolling any further.

The car has more grip in corners, especially in the middle part. But if there already is a lot of traction, long camber links can slow down in turns.

Short Link: A short link will make the chassis roll less. Its tendency to roll drops as it rolls. It feels as if the car generates a little less grip.

More Parallel Link: A parallel link gives a little more roll than an angled one. It feels smooth, and consistant as the body rolls in turns.

Angled Link: An angled link makes the car feel as if it has a tendency to center itself (level, no roll), other than through the spring or anti-roll bar. It will give more initial grip, steering into corners. It makes it very easy to "throw" the car. The body rolls a little less than with parallel links. It's possible to use softer springs and a softer damping than with parallel links, without destabilising the car.

Always keep an eye on the balance of the car; large differences in roll-center front versus rear will make the car feel less consistant!

Inner Hingepin Locations:

It is possible to mount the wishbones on different heights to the bulkheads. This will change the roll-center of the car.

Low mounting: The roll-center becomes lower, which generates more chassis-roll into the corner.

Higher mounting: The roll-center becomes higher, which generates less chassis-roll. Car changes quicker from direction, but less grip will be generated. Feels very stable.

Front Caster:

Caster can be very important to the handling of the car. Adding or removing caster can transform the steering balance of a car. The total of Caster is degrees Kick-up + degrees Caster C-hub. **More Caster:** Will give stability, especially at high speeds. More Caster generally suits large high-speed open tracks.

Less Caster: Will increase steering drastically. Steering feels more direct, so the car turns tighter and faster. Small amounts of caster are suitable for tight tracks.

These settings can be arranged with the optional C-hubs and the inner hingepin settings. [min. 0 / 2 / 4 / max. 6]

Front Kick-up and anti-dive:

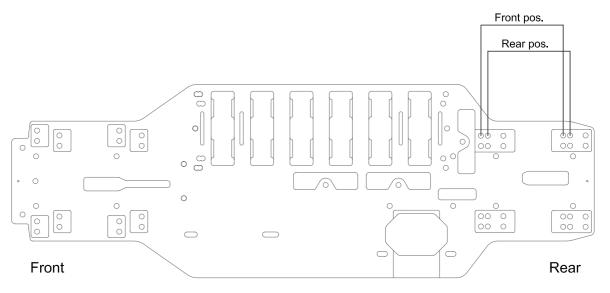
Refers to the angle in which the front suspension is mounted in relation to horizontal when looked from the side of car. **Kick-up** and **anti-dive** are adjusted by changing the angle of the front wishbones, which can be done by the 0.6mm (**#79729**) and 1.5mm (**#79730**) Wishbone Mount Shims. These can be put under the Wishbone Mounts. The setting of 0° kick-up will have more aggressive steering feeling but will not absorb bumps well. The setting of a small amount of kick-up will work better in most conditions, especially in bumpy conditions. An anti-dive setting give a very aggressive steering feeling and will improve the front braking traction by entering corners. When using anti-dive a differential must be used in the front. Use at least 2° caster C-hubs. Anti-dive will not work on bumpy conditions.

Rear anti-squat:

Describes the angle at which the rear suspension is mounted when looked sideways at the car. Generally more anti-squat make the car more sensitive by throttle input. The car has more steering while braking (when diff is used), and also a little more powering out of the corners. Less anti-squat gives more side-bite, on-power and while braking. It feels easier to drive in low-grip situations.

Wheelbase adjustment:

The Wishbone Mounts for the rear wishbones can be mounted in two position. For a short wheelbase and for a long wheelbase. Positions shown below.

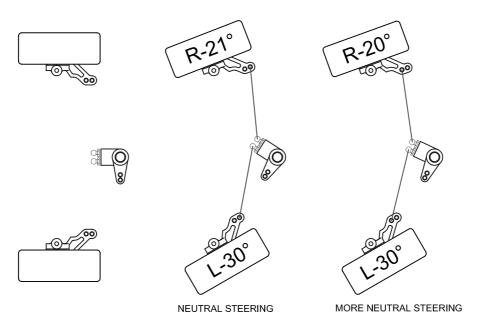


Use the shims #79113 and #79114 to fine tune the wheelbase to your needs.

Adjust the wheelbase by moving the white inner hingepin shims. A short wheelbase makes the car feel good in tight turns. Use a short wheelbase on very small and tight tracks. A longer wheelbase makes the car feel a lot more stable, and better in wide, high-speed turns. Use a longer wheelbase on wide open tracks. Moving the shims to the front of the front wishbones will shorten the wheelbase and decrease rear traction and greater stability. Moving the shims to the front of the rear wishbones will lengthen the wheelbase and decrease rear traction and greater stability. Moving the shims to the rear of the rear wishbones will shorten the wheelbase and increase rear traction.

Ackermann:

This is a term describing the effect of the inner front wheel turning tighter than the outside front wheel. The perfect angle (no slip in theory) between the two front tires is called "the Ackermann angle". The angle can be varied by adjusting the steering linkages. The Ackermann setup works well in most conditions and will provide a very smooth, predictable steering.



Shock Springs:

Try to keep your car level during acceleration, deceleration and cornering. Stiffer springs make the car feel more responsive, more direct. The car reacts faster to driver input. Stiff springs are suited for tight, high-traction tracks, which aren't too bumpy. Usually, when you stiffen the whole car, you lose a small amount of steering.

Softer springs are better for bumpy and very large and open tracks. They can also make the car feel as sluggish and slow.

Stiffer Front:

The car has less front traction, and less steering. It's harder to get the car to turn, the turn radius is bigger and the car has a lot less steering exiting corners. On very high-grip tracks, if the track itself feels tacky or sticky, very stiff springs are the way to go.

Softer Front:

The car has more steering, especially in the middle part and the exit of the corner. Front springs that are too soft can make the car hook and spin.

Stiffer Rear:

The car has more steering, in the middle and exit of the turn. This is especially apparent in long, high-speed corners. But rear traction is reduced.

Softer rear:

The car has generally more rear traction, in turns as well through bumpy sections and while accelerating.

Damping:

Thicker oil (heavier damping) makes the car more stable, and makes it handle more smoothly. If damping is too heavy, traction could be lost in bumpy sections. The car will also change direction slower. Soft damping makes the car react quicker. Damping should always be adapted to the spring ratio; the suspension should never feel to "springy" or too slow.

Heavier Front or Softer Rear: The turn radius is wider, but smoother. The car doesn't hook up suddenly. The car is easier to drive, and high-speed steering feels very nice. Easy to drive.

Softer Front or Heavier Rear: The steering reacts quicker. More and better low-speed steering.

Shock Pistons:

The assumption is made that if pistons are changed, the viscosity of oil is also adapted, to give the same static feel. (Same low-speed damping)

Smaller holes (#79223) means more "pack". Pack means the damping gets very stiff, or almost locks up, over sharp bumps. Small holes are good for smooth tracks.

Bigger holes (#79224) mean less pack. The point at which the damping gets stiff (where the shock "packs up") occurs a lot later, at higher shock shaft speeds. Big holes are very good for bumpy tracks. The car is more stable and has more traction in the bumpy sections. It won't be thrown up over sharp bumps, the suspension will soak them up a lot better.

Ride Height:

This describes the height of the chassis in relation to the surface sitting on. This adjustment must be made with the chassis ready-to-run but with no body. By turning the spring adjustment nut the chassis can be raised or lowered. Start with about 6mm clearance between the chassis and ground. Try using a slightly lower ride height for high traction conditions as carpet racing. Do not use a ride height lower than 4mm.

Higher: The car feels better in bumpy sections. It can feel tippy, or even flip over in high-grip conditions.

Lower: The car feels more direct, and it can potentially corner a bit faster. It's also harder to flip the car over. Lowering one end of the car, or putting the other end higher up, gives a little more grip at the lowest end, but try to avoid big differences in ride height between the front and the rear.

Anti-Roll Bars:

Before using anti-roll bars first try to play with the droop settings. Anti-roll bars can be used to stabilize a car from excessive roll (which occurs when your car leans through the turns by centrifugal force). Anti-roll bars are generally used on smooth, high traction track conditions. If the conditions are very bumpy, then anti-roll bars are probably not necessary. If you are driving on a high traction surface and your car wants to oversteer, then use the optional **#79913** (soft), **#79915** (medium) anti-roll bar or **#79917** (hard) on the front only. This will decrease the front chassis roll and decrease steering throughout the corner. This has the feeling of increasing rear traction. If your car is understeering, then try the optional **#79912** (soft), **#79914** (medium) anti-roll bar or **#79916** (hard) anti-roll bar on the rear only. The rear anti-roll bar will decrease rear chassis roll and decrease rear traction (this has the feeling of increasing steering).

Downstops (droop-setting):

When the Wishbones have a lot of droop the chassis is free to roll in turns. The center of gravity of the car won't change much. Chassis rolls around its roll-center. But if the wishbones almost have no droop the chassis will be pulled down as it rolls. It cannot roll anymore around its roll-center, because the chassis will become one-piece with the wishbone as it rolls. Then the center of gravity will become lower.

Front:

- **Less droop** makes the car smoother in the middle of a corner and gives more steering under acceleration. Sometimes too little droop makes a car difficult to accelerate out from corners.
- **More droop** gives more steering response in the middle of a corner and makes the car push on throttle.

Rear:

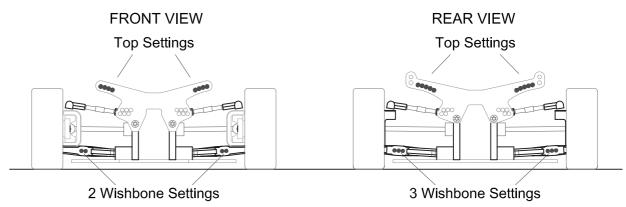
- **Less droop** makes the rear more stable to the corner and gives less grip in the middle and out of the corner.
 - Less droop will heat up tires more.
- More droop reduces rear grip into the corner, but rear tires stay cooler and the car works more stable through your heat.

Before using anti-roll bars, the droop-setting is a better option first to play with. The wishbones are already prepared for using downstops. See the instructions on page 7 for installing the M3x12 set screws which are required for adjusting the droop. The adjustment of left and right should be the same. But don't use your downstops for lowering your chassis, because this isn't the way to do so. This must be done by the spring adjustment of your dampers.

Front Drive:

- **Ball Differential (#79690)** can be adjusted for tightness (and slippage), so it makes them very versatile. By adjusting the front diff a little tighter, some more understeer will be experienced. But there will be a little more steering and traction exiting the corner. It feels more stable. When tighten the rear diff, the rear of the car will become easier to break loose. But adjusting the diffs is not really a good solution to solve the problem of under/oversteer balance.
- One-way (#79667) contains two one-way bearings; one for each wheel. It acts like a diff in only the forward direction. The front wheels can only turn faster than the rear wheels, but not slower. Left and right wheel can rotate independantly from each other, when power off entering a corner. This will give slightly more steering, so the corner can be taken faster. With a one-way front diff there will be no front braking, no differential action off power, high cornering speed, and excellent acceleration out of the corner. On really high-grip, open tracks with smooth, flowing high speed corners it is a one to have thing. So it comes standard in this kit.
- **Spool** (**#79655**) is like a fully locked diff but has no moving parts. It's super-solid with no adjustments. Because there's no differential action at all, a lot of speed is scrubbed off in corners. A spool at the front will make the car very hard to turn in. But gives stability under acceleration and deceleration. A spool at the rear will give a lot of steering.

Shock position:



The RDX Phi allows 4 front and 5 rear top fixing positions for the shock absorbers.

More Inclined: Has a more progressive smoother feel. More lateral grip. Having all shocks inclined makes the car very easy to drive, and it feels like the car has more grip, but it's not always fast...

Less Inclined (more vertical): More direct feel. Less lateral grip. (site-bite)

Front more inclined than rear: Steering feels very smooth. A little more mid-corner steering. Mounting the rear shocks very much upright can result in the rear end feeling unpredictable. It also makes the rear end jitter in turns.

Rear more inclined than front: Feels agressive turning in, but for most of time the car has a little less steering. The car has a lot of side traction in the rear, and the turn radius isn't very tight.

Wishbones:

It's possible to use different kind of Wishbones:

Medium 5 : Front (#79040) - Rear (#79050) Hard 35 : Front (#79060) - Rear (#79070) X-Hard 80 : Front (#79080) - Rear (#79090)

Softer Wishbones can add a little more grip because they flex a bit more.

Harder Wishbones can be used if there is plenty of traction but suspension setup will be more important. Suspension setup feels better and more consistent.

Tire Additives:

Corally tire additives come in a large can (150ml) complete with brush for easy application.

TC-1: Classic formula for use on foam tires on carpet tracks.

TC-2: JACK THE GRIPPER is odorless and EFRA legal. This is the most populair choice for use on rubber and foam tires on any surface.

TC-3: Formulated for outdoor use.

TC-4: CARPET JACK is upgraded Jack The Gripper specially formulated to provide maximum grip for rubber tires on carpet tracks - odorless.

TC-5: ASPHALT JACK is specially formulated to provide maximum grip for rubber tires on tarmac. - odorless. Note: Using tire warmers will improve results.

- TC-1 (#13788) Formulated for foam tires on carpet
- **TC-2 (#13779)** Jack the Gripper (Minimum Odor)
- TC-3 (#13789) Unpleasant Smell, Maximum Traction
- TC-4 (#13790) Carpet Jack
- TC-5 (#13792) Asphalt Jack

Setup Sheet:

There's a setup sheet included in this manual. Set up your RDX Phi 09 with the standard settings at right, then deviate from them in response to your track conditions and driving style, as noted below.

For best result, make only one setup change at a time, testing it before making another change. Make a copy of the setup sheet included in this manual to help keep track of your changes. Before make any changes to standard setting, make sure you can get around the track without crashing. None of your setup changes will work if you cannot stay on the track. Your goal is consistent laptimes. Inconsistent lap times may indicate poor control. When you have consistent lap times, then make changes to your car. If the change results in a faster lap, then mark the change in your setup sheet. If performance is worse, then revert to previous setup and try another change. Fill out your setup sheet thoroughly when you are satisfied with it and file it away. It can be a practical guide for future track lay-outs and conditions you encounter. Always keep in mind that your car stays in balance. Too much difference in front and rear setup can make the car feel unpredictable.

We at Team Corally wish you best luck and see you at the track!

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		7 Driver:	_
		Track / City:	
<u> </u>	SHEET	Event:	Date:
Front			0000
Caster	Downstopsmm	Oil WT	
Toe-out	Anti-roll bar	Piston	
Camber	Front widthmm	Rebound	
Ride Height	Front drive	Spring lbs	
Wishbone	Front pulley	Shock tower	mm
Wheelbase	Steering	Steering block	
F Mount			
R Mount	R Height shims mm	n R WB shims mm	1
Rear			
Anti-squat	Downstopsmm	o OilWT	0 0000
	Anti-roll bar		
	Rear widthmm		AA (00° /
	Center pulleyT		L
Wishbone	Rear pulleyT	Shock tower	00 000
Wheelbase		Uprighttoe-in	
F Mount	F Height shims mm	n F WB shims mm	1
R Mount	R Height shims mm	n R WB shims mm	1
Others			
Tires		Tire additive	
	Motor setup		
Radio	Servo	ESC	
	Wing	Weight	balance
	Lead Weights g		
Track Condition	s		
Surface	_		
Traction	Г	ont	Rear
Temp.	Page Comme	<u>ents</u>	
Notes		Qual. PosTime	Laps