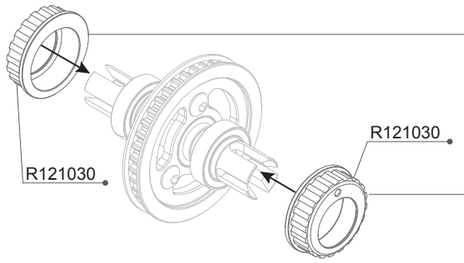
PAGE-01



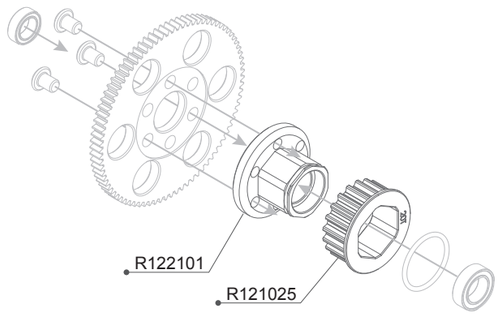
Option Parts (Not Included)

R122017 R12 Eccentric Hub-Alu (4)

The aluminum eccentric hub provide more precise and minimize gap when adjust belt tension.



PAGE-03

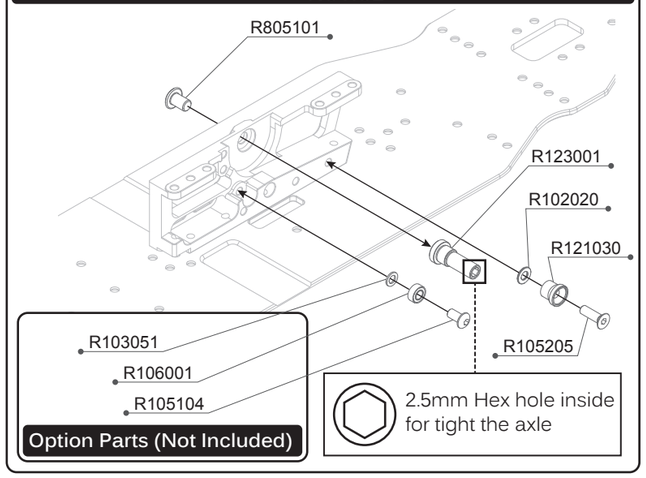


CORRECT ITEM NUMBER

R121025 R12 Center Pulley 20T
R122101 R12 Center Pulley Hub-Alu

PAGE-06

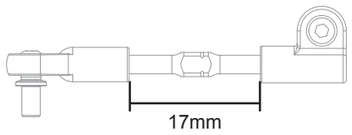
NOTICE



Option Parts (Not Included)

2.5mm Hex hole inside for tight the axle

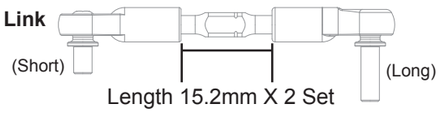
PAGE-11&19



NOTICE

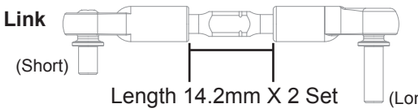
Recommend length for initial setup

Front Link



Length 15.2mm X 2 Set

Rear Link



Length 14.2mm X 2 Set

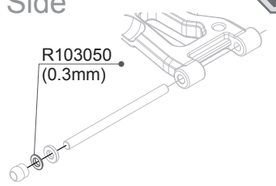
PAGE-13

FRONT

Left Side

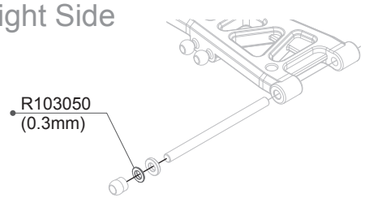


Right Side

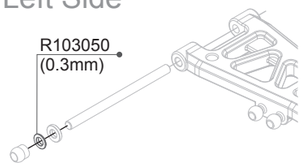


REAR

Right Side



Left Side

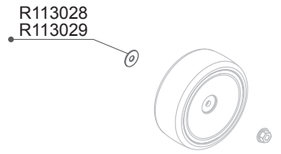


PAGE-21

CORRECT ITEM NUMBER

OPTION PARTS **R129004** R12 ATS SYSTEM (Not Included)

PAGE-32&34



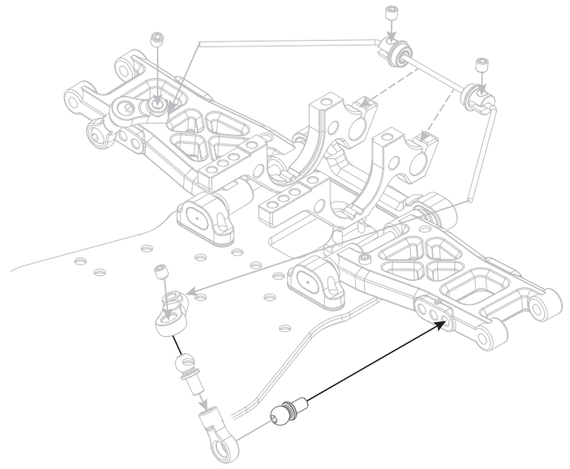
Option Parts (Not Included)

R103028 4x11x0.25mm Shims (8)

R103029 4x11x0.5mm Shims (8)

The track width can be increased by adding R113028 (0.25mm) and R113029 (0.5mm).

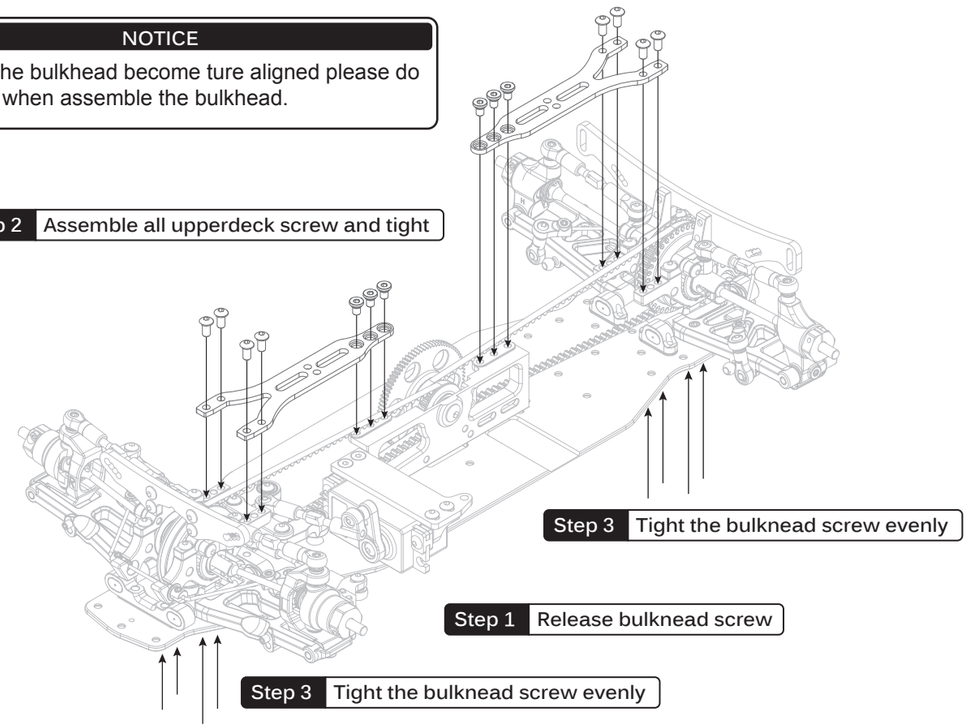
PAGE-36



BULKHEAD ALIGNMENT PROCESS PAGE-26

NOTICE

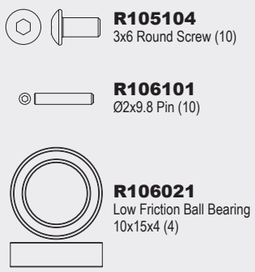
To make sure the bulkhead become ture aligned please do below process when assemble the bulkhead.



NOTICE

TH =Apply Thread Lock Adhesive CA =Apply CA Glue GE =Apply Grease

BAG 01

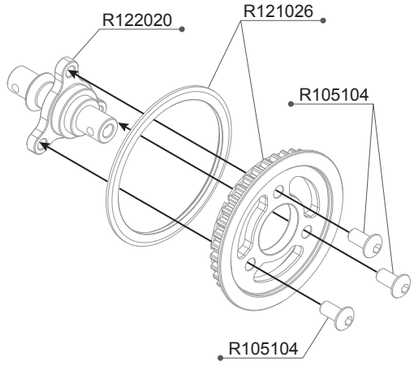


R105104
3x6 Round Screw (10)

R106101
Ø2x9.8 Pin (10)

R106021
Low Friction Ball Bearing
10x15x4 (4)

1:1 Scale



Option Parts (Not Included)

R102811 Spool Outdrive Alu (2pcs)

Recommended for stock class. Need to use together with R101030 C Cap on front drive shaft.



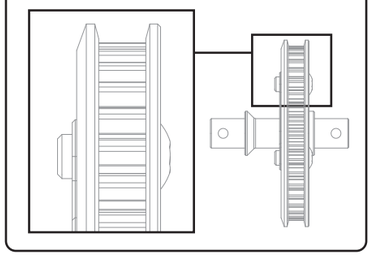
R113005 Spool Outdrive Steel (2pcs)

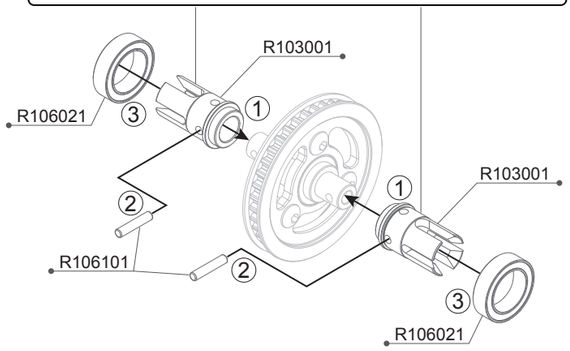
Recommended for modified class. Need to use together with R101030 C Cap on front drive shaft.

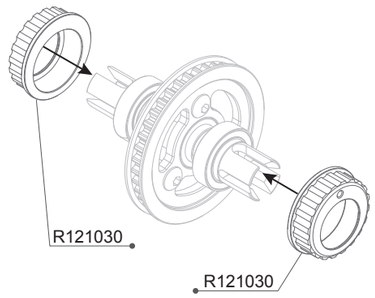


NOTICE
Pulley cover direction

Please make sure the pulley cover is oriented with the bevel side out.





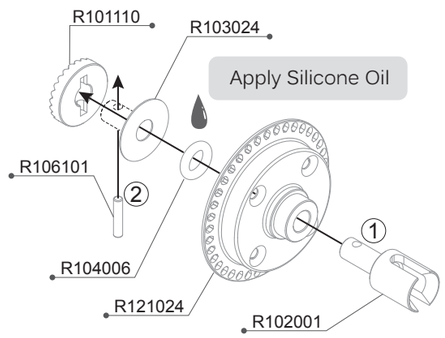


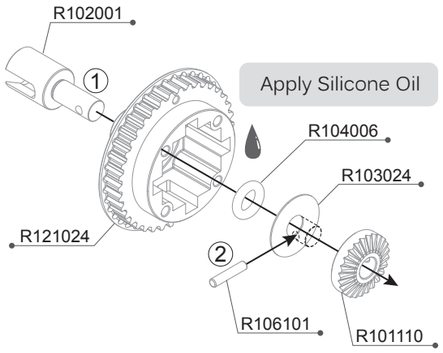
R103001	Spool Outdrive(2pcs)	R121026	R12 Front Pulley 38T
R105104	3x6 Round Screw (10)	R121030	R12 Eccentric Hub (4)
R106021	Low Friction Ball Bearing 10x15x4 (4pcs)	R122020	R12 Spool Axle-Alu
R106101	2x9.8mm Pin (10pcs)		

BAG 01

R106101
Ø2x9.8 Pin (10)

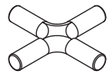
1:1 Scale





R101110	Diff Gears (with Axle)	R104006	O'ring 5x2(4pcs)
R102001	Gear Diff Outdrive Alu(2pcs)	R106101	2x9.8mm Pin (10pcs)
R103024	Gear Diff Shim Big(4pcs)	R121024	R12 Diff Case

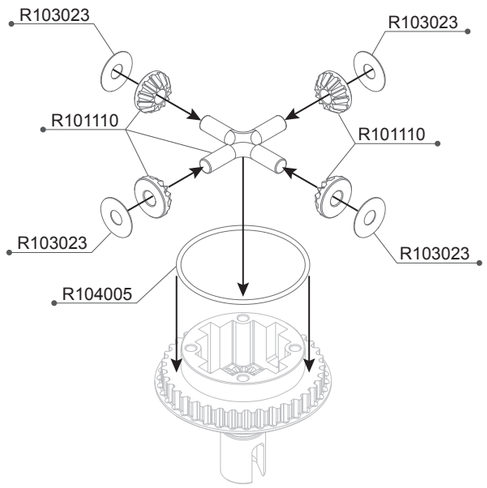
BAG 01

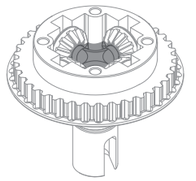


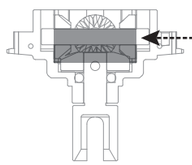
NOTICE
Trim any excess flashing from the diff gear axle at the mold injection point.



Silicone Oil #3000







Fill oil to top of axle as pictured here

NOTICE
We recommend using 1.5 grams of silicone diff oil.

R101110	Diff Gears (with Axle)	R104005	O'Ring 26x1 For Diff Case(2pcs)
R103023	Gear Diff Shim Small(8pcs)		

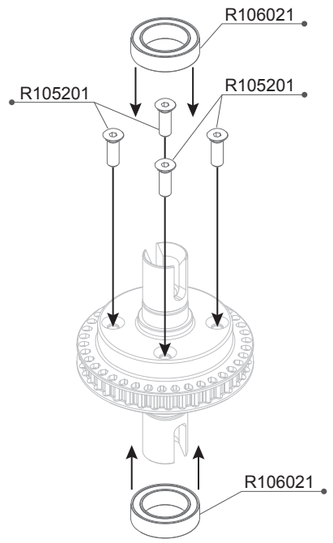


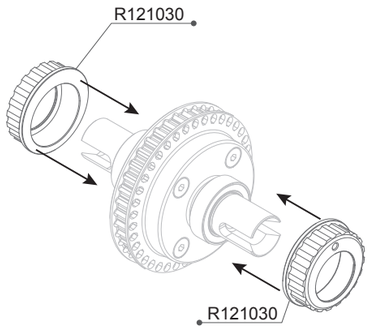
R105201
2.5x8mm Flat Screw (10)

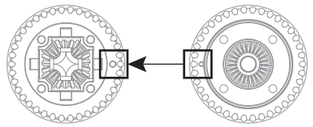


R106021
Low Friction Ball Bearing
10x15x4 (4)

1:1 Scale







NOTICE
Diff case direction needs to match as per above.

R105201	2.5x8mm Flat Screw (10)	R121030	R12 Eccentric Hub (4)
R106021	Low Friction Ball Bearing 10x15x4 (4pcs)		

ASSEMBLY & EXPLODED VIEW



R105103
3x4 Round Screw (10)

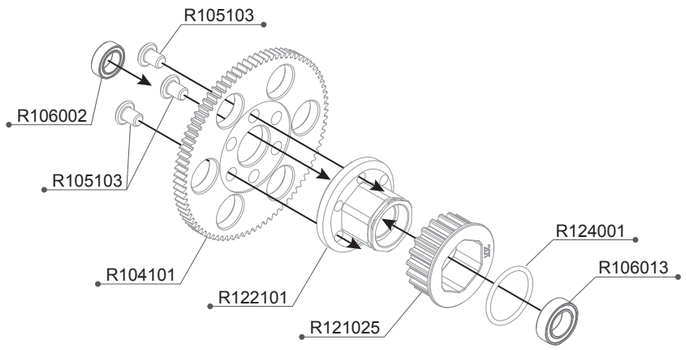


R106002
5x8x2.5mm Ball Bearing
/ Metal Seal (4)



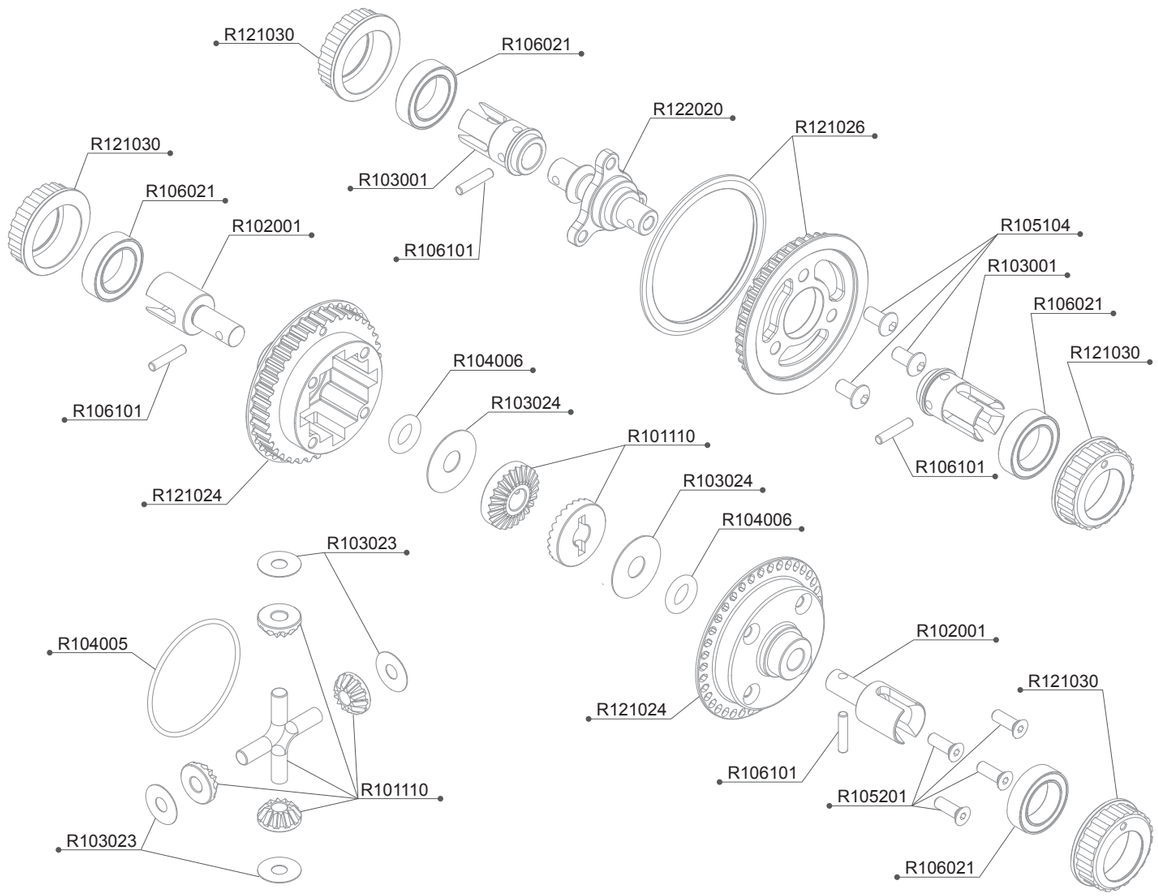
R106013
6x10x3 Ball Bearing (2)

1:1 Scale



R124001	10x1 O'ring (4)	R106013	6x10x3 Ball Bearing (2)
R104101	CNC Spur 84T (48dp)	R121025	R12 Center Pulley 20T
R105103	3x4 Round Screw (10)	R122101	R12 Center Pulley Hub-Alu
R106002	5x8x2.5mm Ball Bearing /Metal Seal (4)		

R12 BAG 01 PARTS EXPLODED VIEW



R12 BAG 01 PARTS LIST

R101110	Diff Gears (with Axle)	R105201	2.5x8mm Flat Screw (10)
R102001	Gear Diff Outdrive Alu(2pcs)	R106021	Low Friction Ball Bearing 10x15x4 (4pcs)
R103001	Spool Outdrive(2pcs)	R106101	2x9.8mm Pin (10pcs)
R103023	Gear Diff Shim Small(8pcs)	R121024	R12 Diff Case
R103024	Gear Diff Shim Big(4pcs)	R121026	R12 Front Pulley 38T
R104005	O'Ring 26x1 For Diff Case(2pcs)	R121030	R12 Eccentric Hub (4)
R104006	O'ring 5x2(4pcs)	R122020	R12 Spool Axle-Alu
R105104	3x6 Round Screw (10)		

1:1 SCALE

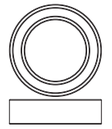


R105104
3x6 Round Screw (10)



R105201
2.5x8mm Flat Screw (10)

R106101
Ø2x9.8 Pin (10)

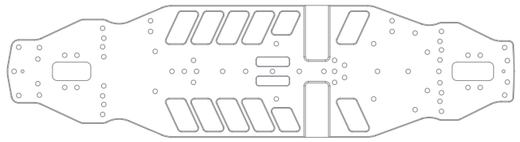


R106021
Low Friction Ball Bearing
10x15x4

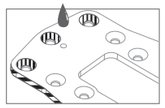
BAG 02

Option Parts (Not Included)

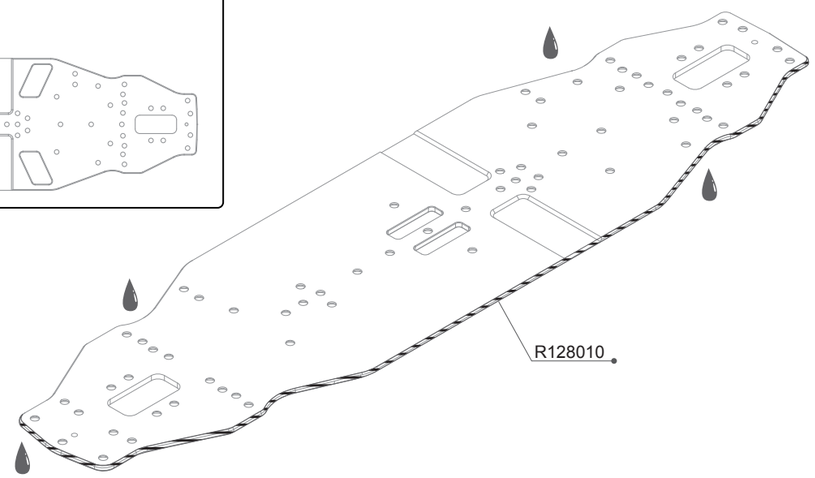
R122024
R12 Aluminum Chassis 2.0mm



NOTICE



Apply CA Glue to the chassis edges and front bumper screws as highlighted.

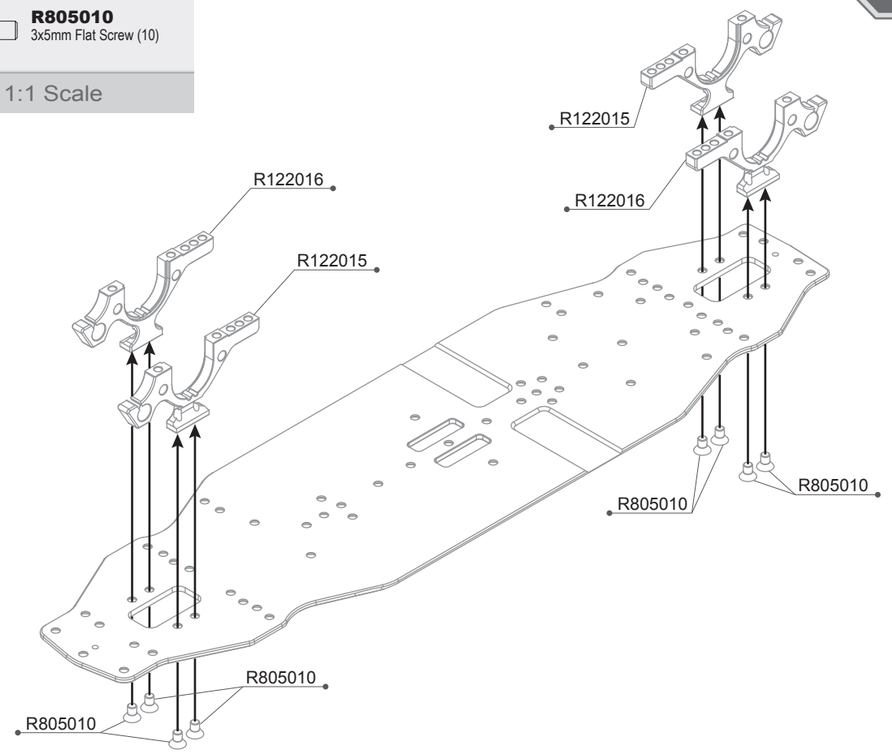


R128010 R12 Carbon Chassis 2.25mm

BAG 02

R805010
3x5mm Flat Screw (10)

1:1 Scale



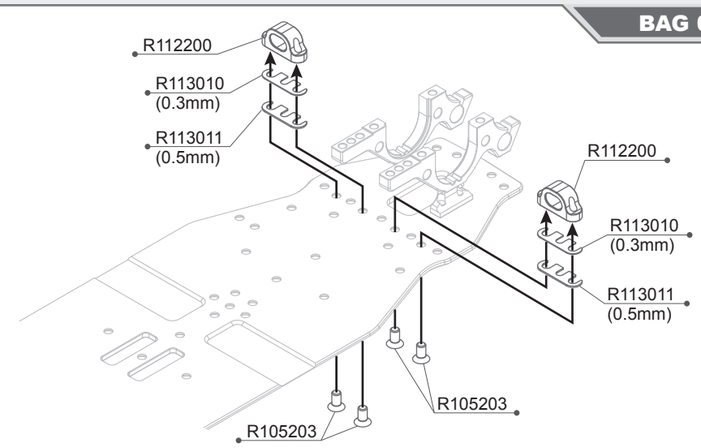
R122015 R12 Bulkhead-FL/RR
R122016 R12 Bulkhead-FR/RL

R805010 3x5mm Flat Screw (10)

BAG 02

R105203
3x6mm Flat Screw (10)

1:1 Scale



R105203 3x6mm Flat Screw (10)
R112200 R11 Suspension Block RF (2)

R113010 R11 Roll Center Shims-Narrow 0.3mm (4)
R113011 R11 Roll Center Shims-Narrow 0.5mm (4)

BAG 02

R105104
3x6 Round Screw (10)

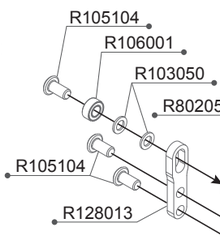
R105203
3x6mm Flat Screw (10)

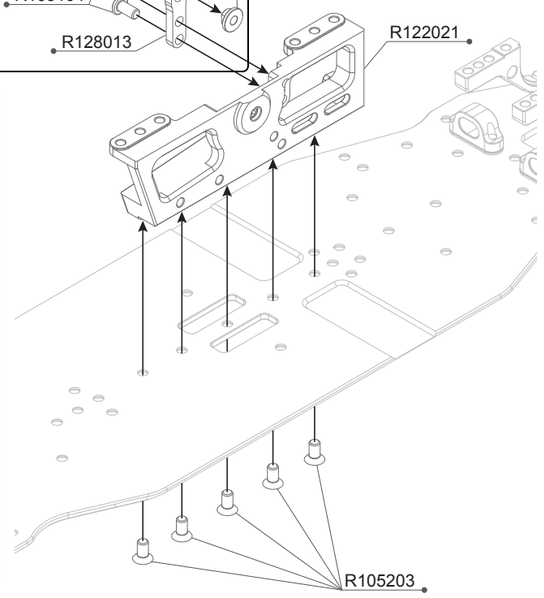
R106001
3x6x2.5mm Ball Bearing (2)

1:1 Scale

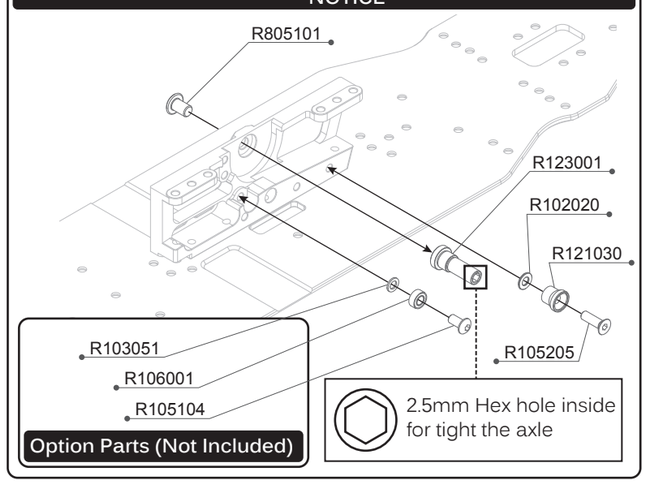
Option Parts (Not Included)

R129001
R12 Belt Tensioner set





NOTICE



R103050 3x5x0.3mm Shims (10)
R105104 3x6 Round Screw (10)
R105203 3x6mm Flat Screw (10)
R106001 3x6x2.5mm Ball Bearing (2)

R122021 R12 Motor Bulkhead
R128013 R12 Belt Tensioner Plate
R802050 Belt Tensioner Shaft

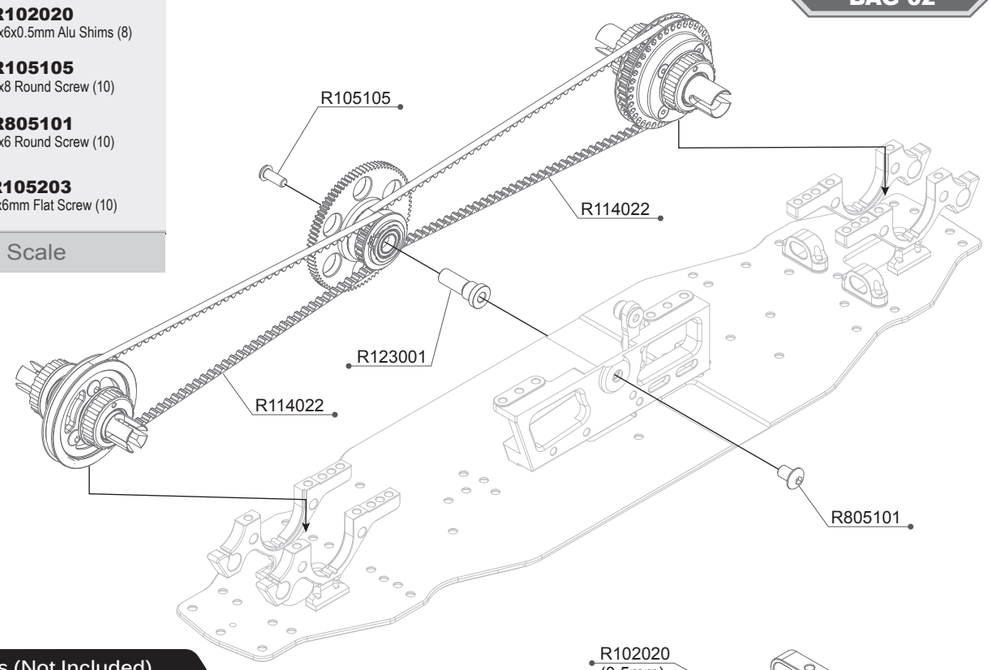
R102020
3x6x0.5mm Alu Shims (8)

R105105
3x8 Round Screw (10)

R805101
4x6 Round Screw (10)

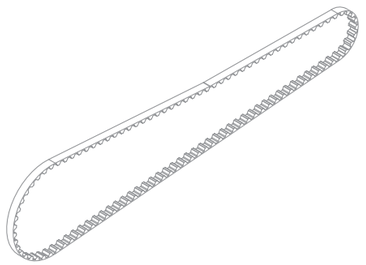
R105203
3x6mm Flat Screw (10)

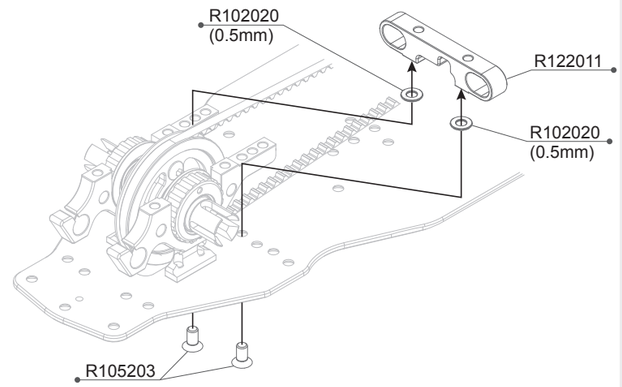
1:1 Scale



Option Parts (Not Included)

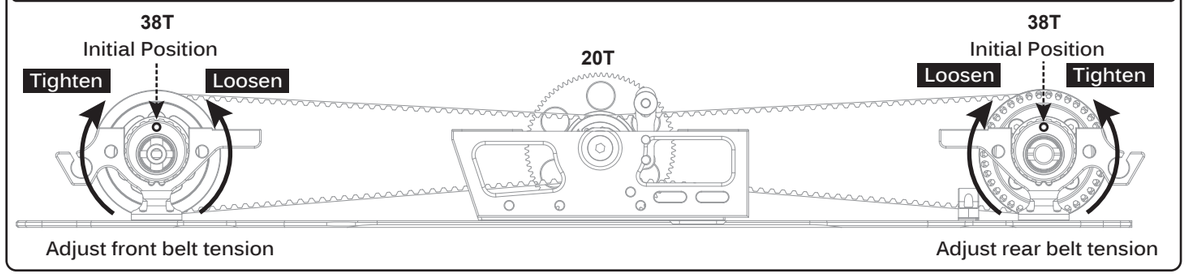
R114023
S3M-351-3mm White Rubber Belt





NOTICE

R12 Internal Gear Ratio 1.9 (20T/38T)



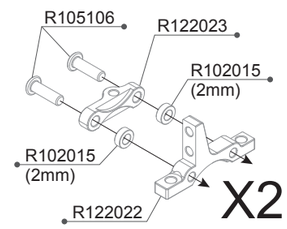
R102020	3x6x0.5mm Alu Shims(8pcs)	R122011	R12 Suspension Block-FR
R105105	3x8 Round Screw (10)	R123001	R12 Spur Shaft
R105203	3x6mm Flat Screw (10)	R805101	4x6 Round Screw (10)
R114022	S3M-351-3mm Belt		

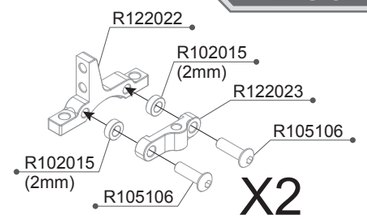
R102015
3x5.5x2mm Alu Shims (8)

R105104
3x6 Round Screw (10)

R105106
3x10 Round Screw (10)

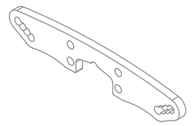
1:1 Scale



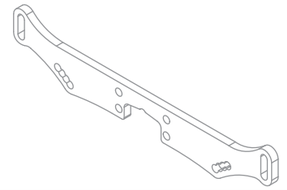


Option Parts (Not Included)

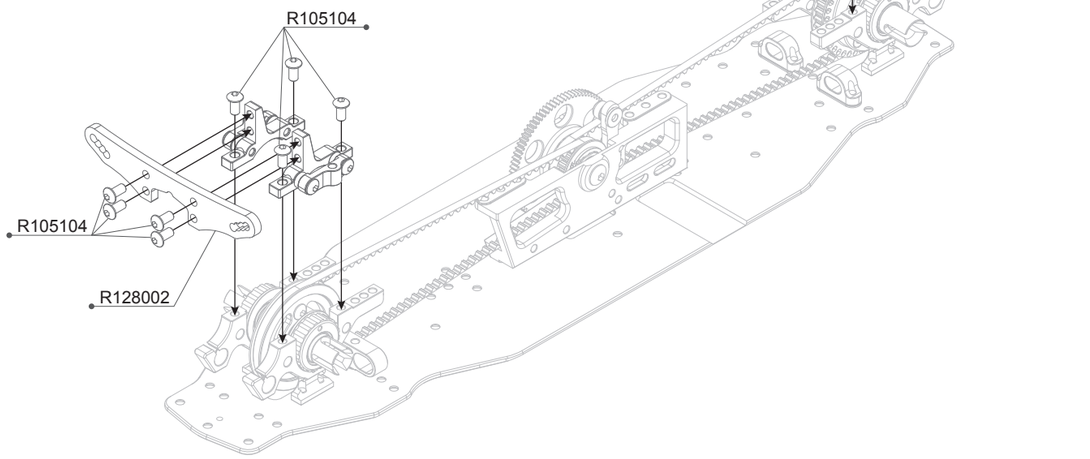
R128012
R12 Front Shock Tower -3mm



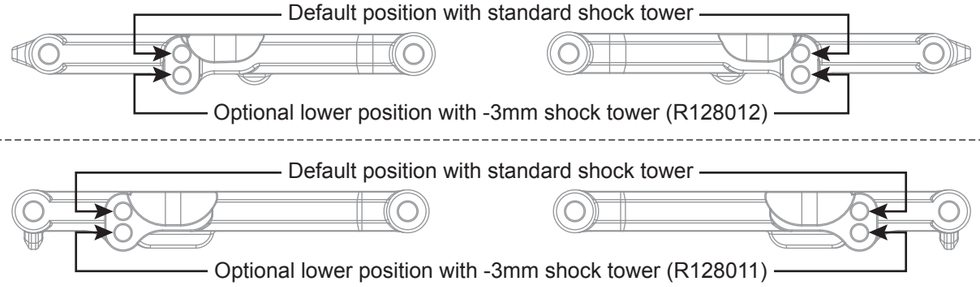
R128011
R12 Rear Shock Tower -3mm



Recommend to use on indoor track or medium to high traction.

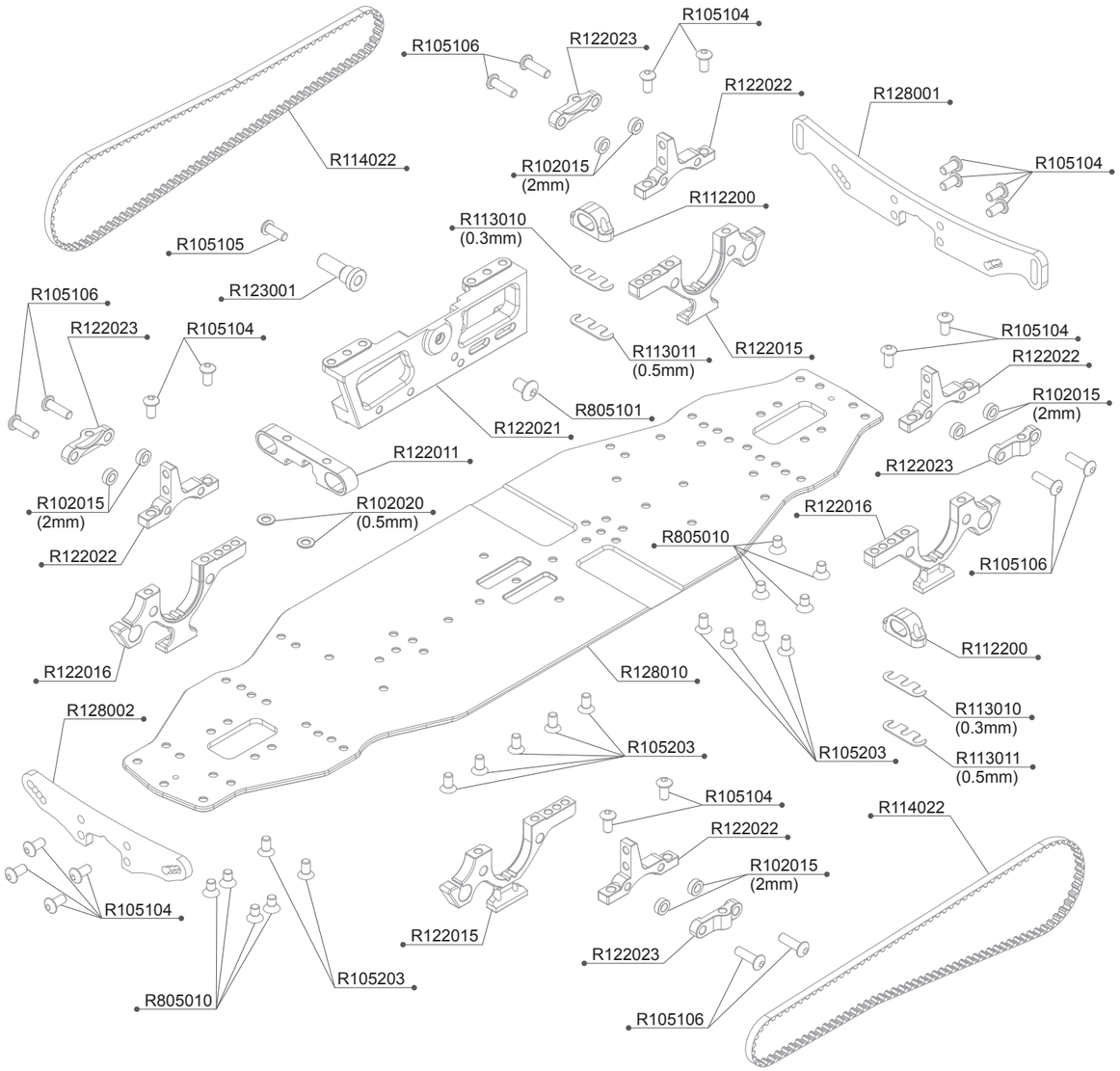


NOTICE

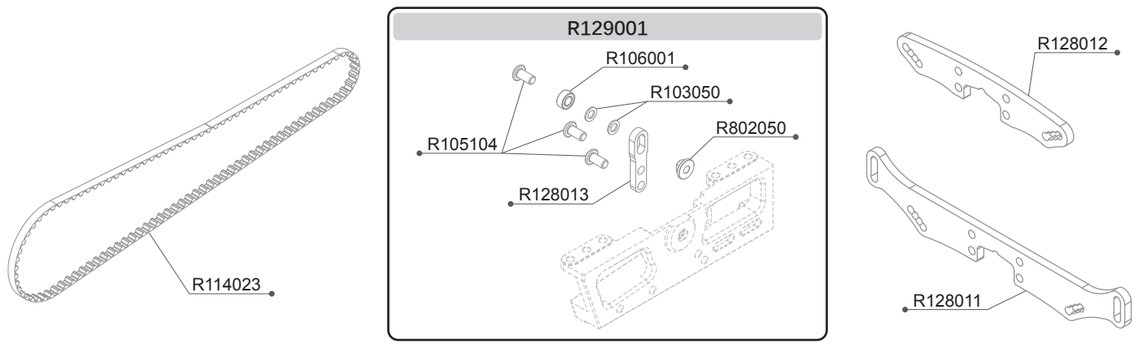


R102015	3x5.5x2mm Alu Shims(8pcs)	R122023	R12 Upper Link Base
R105104	3x6 Round Screw (10)	R128001	R12 Rear Shock Tower
R105106	3x10 Round Screw (10)	R128002	R12 Front Shock Tower
R122022	R12 Upper Bulkhead		

R12 BAG 02 PARTS EXPLODED VIEW



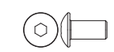
OPTION PARTS EXPLODED VIEW

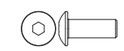


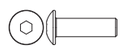
R12 BAG 02 PARTS LIST

R102015	3x5.5x2mm Alu Shims(8pcs)
R102020	3x6x0.5mm Alu Shims(8pcs)
R105104	3x6 Round Screw (10)
R105105	3x8 Round Screw (10)
R105106	3x10 Round Screw (10)
R105203	3x6mm Flat Screw (10)
R112200	R11 Suspension Block RF (2)
R113010	R11 Roll Center Shims-Narrow 0.3mm (4)
R113011	R11 Roll Center Shims-Narrow 0.5mm (4)
R114022	S3M-351-3mm Belt
R122011	R12 Suspension Block-FR
R122015	R12 Bulkhead-FL/RR
R122016	R12 Bulkhead-FR/RL
R122021	R12 Motor Bulkhead
R122022	R12 Upper Bulkhead
R122023	R12 Upper Link Base
R123001	R12 Spur Shaft
R128001	R12 Rear Shock Tower
R128002	R12 Front Shock Tower
R128010	R12 Carbon Chassis 2.25mm
R805010	3x5mm Flat Screw (10)
R805101	4x6 Round Screw (10)

1:1 SCALE


R105104
3x6 Round Screw (10)


R105105
3x8 Round Screw (10)


R105106
3x10 Round Screw (10)


R805101
4x6 Round Screw (10)


R102015
3x5.5x2mm Alu Shims (8)


R102020
3x6x0.5mm Alu Shims (8)


R805010
3x5mm Flat Screw (10)


R105203
3x6mm Flat Screw (10)


R106001
3x6x2.5mm Ball Bearing (2)

OPTION PARTS LIST

R103050	3x5x0.3mm Shims (10)
R105104	3x6 Round Screw (10)
R106001	3x6x2.5mm Ball Bearing (2)
R114023	S3M-351-3mm White Rubber Belt
R128011	R12 Rear Shock Tower -3mm
R128012	R12 Front Shock Tower -3mm
R128013	R12 Belt Tensioner Plate
R802050	Belt Tensioner Shaft



R105104
3x6 Round Screw (10)

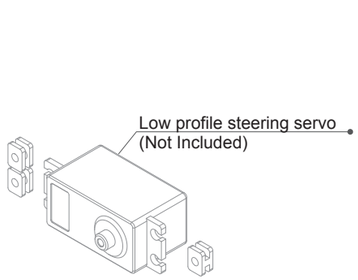


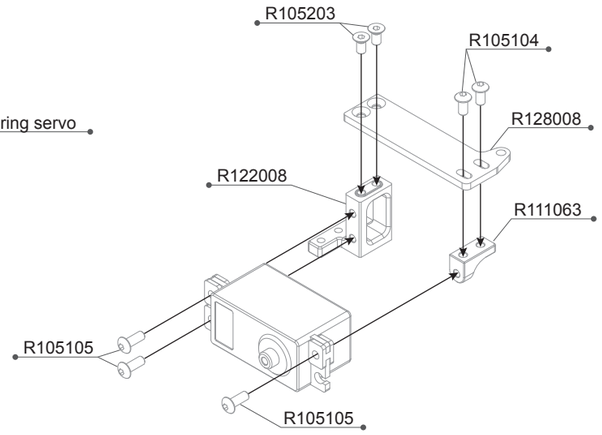
R105105
3x8 Round Screw (10)



R105203
3x6mm Flat Screw (10)

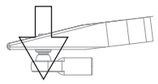
1:1 Scale

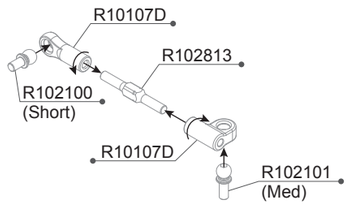


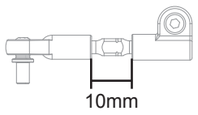


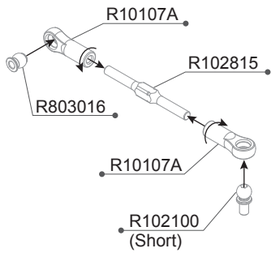
NOTICE
It is recommended to use servo mount rubber.

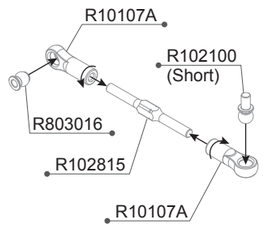
R105104	3x6 Round Screw (10)	R111063	R11 Servo Mount-Left
R105105	3x8 Round Screw (10)	R122008	R12 Servo Mount-Alu
R105203	3x6mm Flat Screw (10)	R128008	R12 Servo Mount Plate

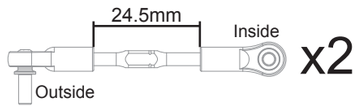












R10107A	Ball Joint 4.9mm Open (6pcs)	R102813	Turnbuckle 3x28mm ALU-7075 (2pcs)
R10107D	Steering Rod Ball joint	R102815	Turnbuckle 3x37mm ALU-7075 (2pcs)
R102100	Alu 4.9mm Ball End Short(4pcs)	R803016	Ball Head 4.9mm (4)
R102101	Alu 4.9mm Ball End Med(4pcs)		



R105104
3x6mm Round Screw (10)

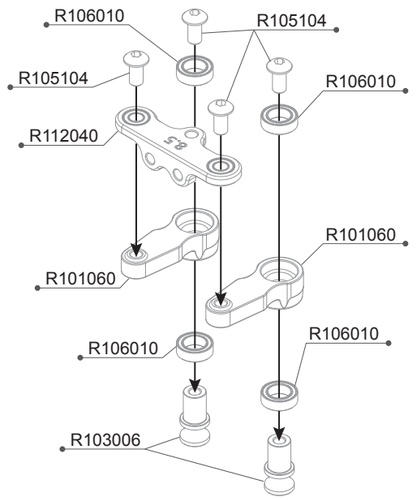


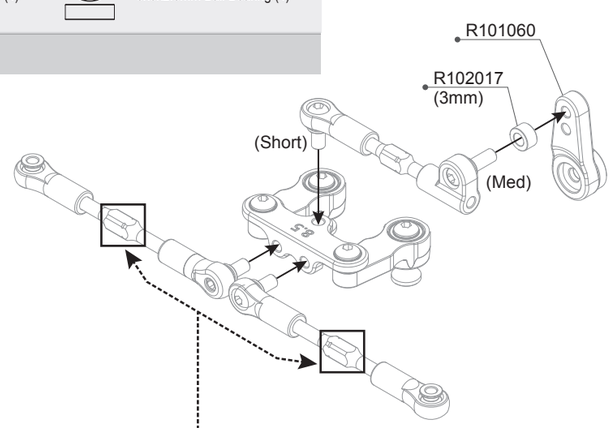
R102017
3x5.5x3mm Alu Shims (4)



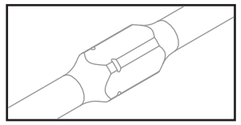
R106010
5x8x2.5mm Ball Bearing (4)

1:1 Scale





NOTICE



It is recommended to place the notch on each turnbuckle to the right side, which will make it easier to adjust camber and toe.

R101060	Servo Horn Dual steering arm	R105104	3x6 Round Screw (10)
R102017	3X5.5X3mm Alu Shims(4pcs)	R106010	5x8x2.5mm Ball Bearing (4pcs)
R103006	Steering Shaft(2pcs)	R112040	Steering Plate 8.5



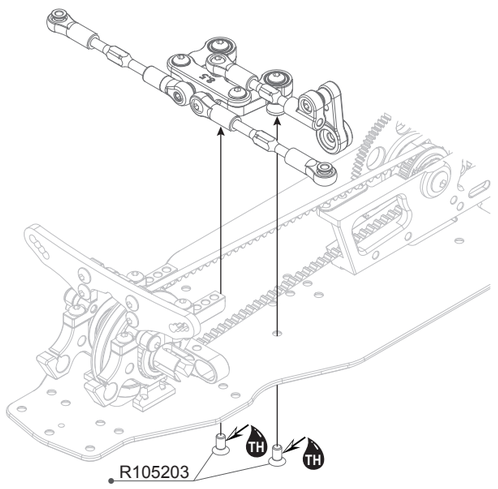
R105104
3x6 Round Screw (10)

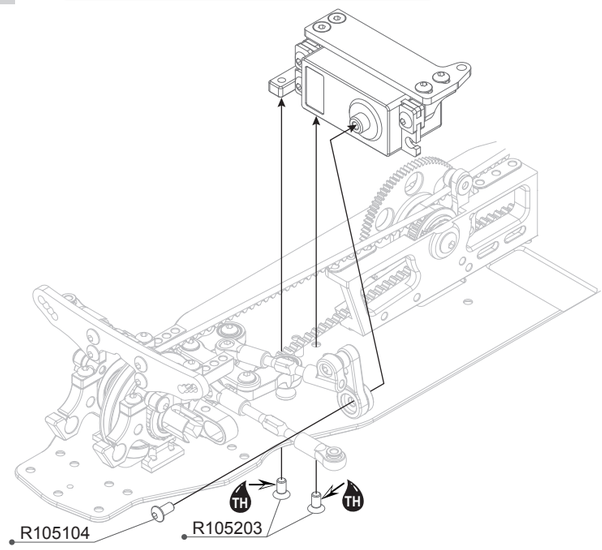


R105203
3x6mm Flat Screw (10)

1:1 Scale

NOTICE
Apply thread locking compound here.



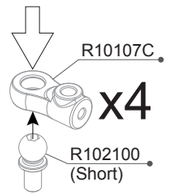


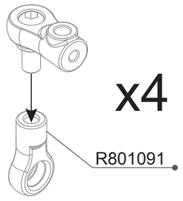
R105104	3x6 Round Screw (10)	R105203	3x6mm Flat Screw (10)

R105403
3x8mm Set Screw (10)

R805052
4x8mm Set Screw (10)

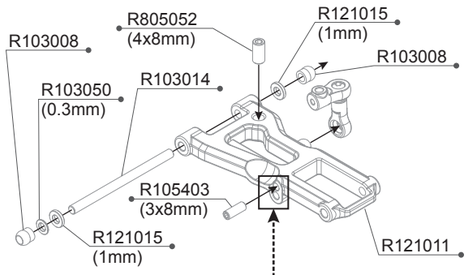
1:1 Scale





FRONT

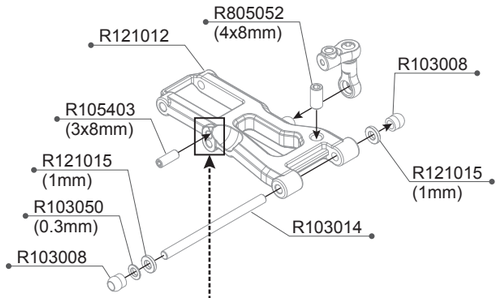
Left Side



DEFAULT SETUP



Right Side



DEFAULT SETUP

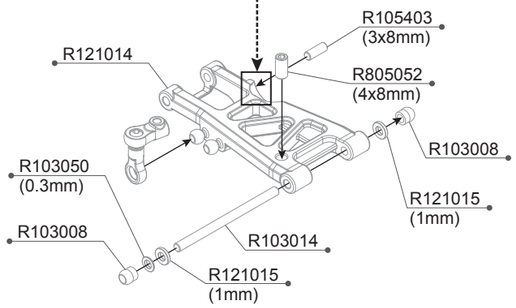


REAR

Right Side

DEFAULT SETUP

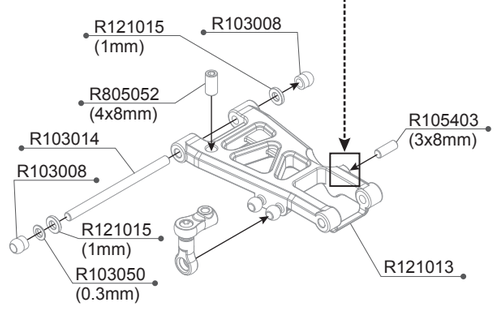




Left Side

DEFAULT SETUP



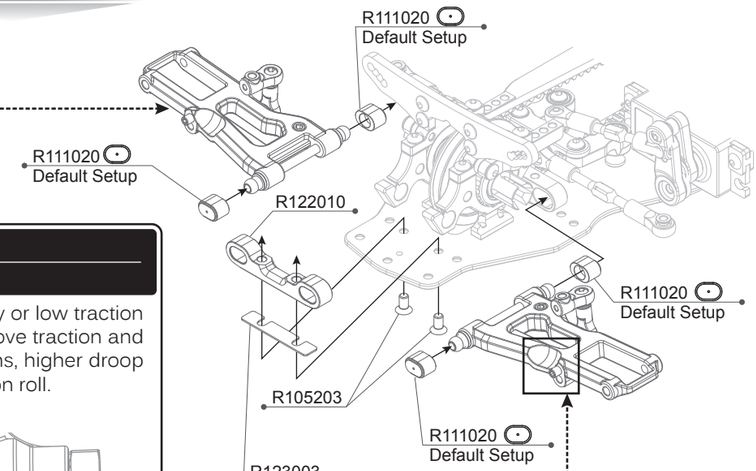


R10107C	Anti-Roll Bar Joint (4pcs)
R102100	Alu 4.9mm Ball End Short(4pcs)
R103008	Ball 5mm(4pcs)
R103014	Pivot Pin Inner(2pcs)
R103050	3x5x0.3mm Shims (10)
R105403	3x8mm Set Screw (10)
R121011	R12 Low Arm-FL
R121012	R12 Low Arm-FR
R121013	R12 Low Arm-RL
R121014	R12 Low Arm-RR
R121015	Plastic Shims (1/2/3mm)
R801091	Ball End 4.9mm Short (2)
R805052	4x8mm Set Screw (10)

R105203
3x6mm Flat Screw (10)

1:1 Scale

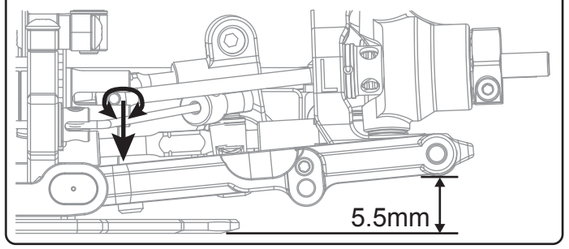
FRONT



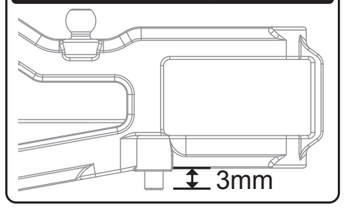
NOTICE

FRONT DROOP SETUP

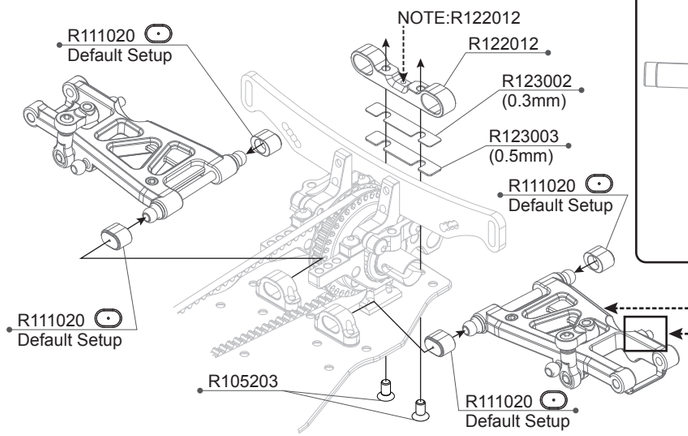
Set initial front droop at 5.5mm. In bumpy or low traction conditions, lower droop will help to improve traction and handling. In flat or high traction conditions, higher droop will increase response and reduce traction roll.



NOTICE



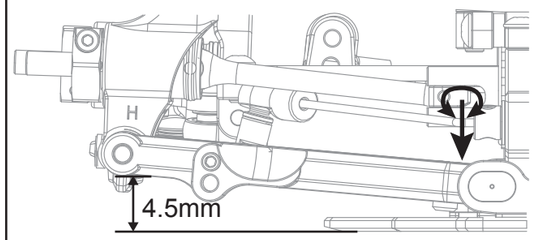
REAR



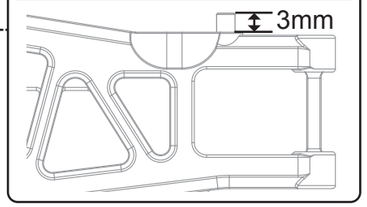
NOTICE

REAR DROOP SETUP

Set initial rear droop at 4.5mm. In bumpy or low traction conditions, lower droop will help to improve traction and handling. In flat or high traction conditions, higher droop will increase response and reduce traction roll.

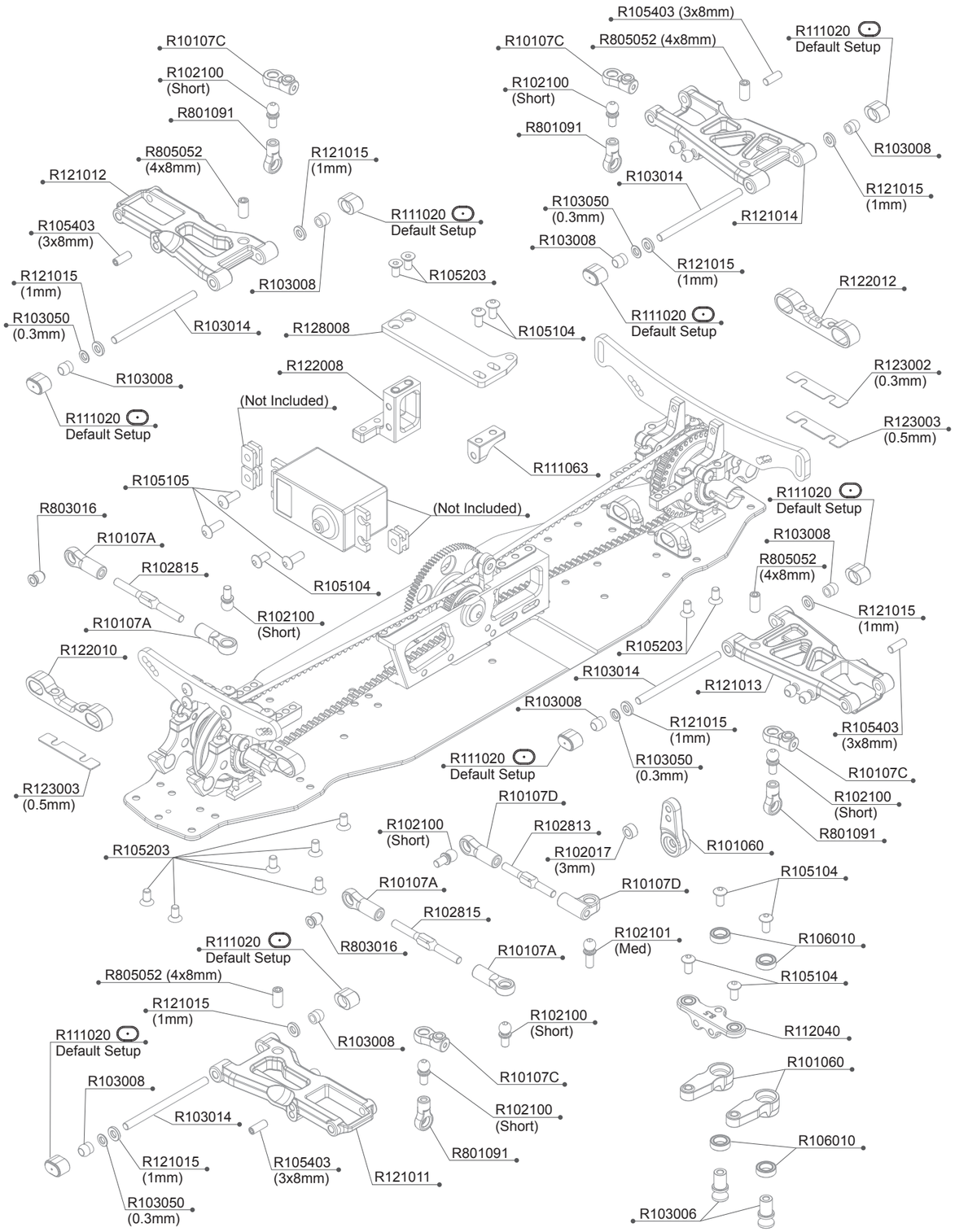


NOTICE



R105203	3x6mm Flat Screw (10)
R111020	Suspension Insert #0~#+2
R122010	R12 Suspension Block-FF
R122012	R12 Suspension Block-RR
R123002	R12 Roll Center Shims 0.3mm (4)
R123003	R12 Roll Center Shims 0.5mm (4)

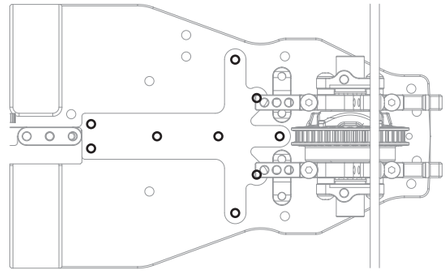
R12 BAG 03 PARTS EXPLODED VIEW

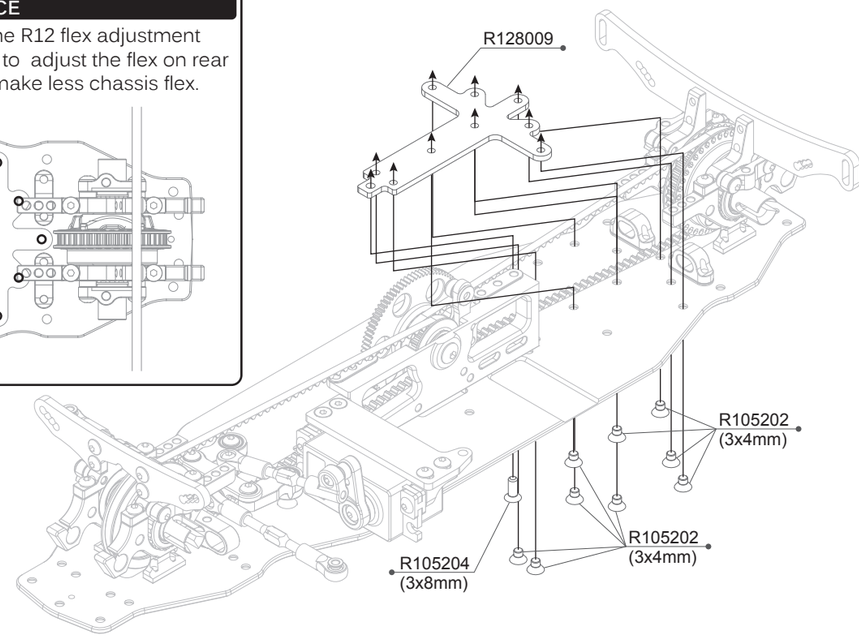


Option Parts R128009 R12 Flex Adjustment Plate

NOTICE

There are 9 screw holes on the R12 flex adjustment plate, each hole can be used to adjust the flex on rear side, more screw fasten will make less chassis flex.





R12 BAG 03 PARTS LIST

R101060	Servo Horn Dual steering arm	R111020	Suspension Insert #0~#+2
R10107A	Ball Joint 4.9mm Open (6pcs)	R111163	R11 Servo Mount-Left
R10107C	Anti-Roll Bar Joint (4pcs)	R112040	Steering Plate 8.5
R10107D	Steering Rod Ball joint	R121011	R12 Low Arm-FL
R102017	3X5.5X3mm Alu Shims(4pcs)	R121012	R12 Low Arm-FR
R102100	Alu 4.9mm Ball End Short(4pcs)	R121013	R12 Low Arm-RL
R102101	Alu 4.9mm Ball End Med(4pcs)	R121014	R12 Low Arm-RR
R102813	Turnbuckle 3x28mm ALU-7075 (2pcs)	R121015	Plastic Shims (1/2/3mm)
R102815	Turnbuckle 3x37mm ALU-7075 (2pcs)	R122008	R12 Servo Mount-Alu
R103006	Steering Shaft(2pcs)	R122010	R12 Suspension Block-FF
R103008	Ball 5mm(4pcs)	R122012	R12 Suspension Block-RR
R103014	Pivot Pin Inner(2pcs)	R123002	R12 Roll Center Shims 0.3mm (4)
R103050	3x5x0.3mm Shims (10)	R123003	R12 Roll Center Shims 0.5mm (4)
R105104	3x6 Round Screw (10)	R128008	R12 Servo Mount Plate
R105105	3x8 Round Screw (10)	R801091	Ball End 4.9mm Short (2)
R105203	3x6mm Flat Screw (10)	R803016	Ball Head 4.9mm (4)
R105403	3x8mm Set Screw (10)	R805052	4x8mm Set Screw (10)
R106010	5x8x2.5mm Ball Bearing (4pcs)		

1:1 SCALE


R105203
3x6mm Flat Screw (10)


R105104
3x6 Round Screw (10)


R105105
3x8 Round Screw (10)


R105403
3x8mm Set Screw (10)


R805052
4x8mm Set Screw (10)


R102017
3x5.5x3mm Alu Shims (4)


R106010
5x8x2.5mm Ball Bearing (4)



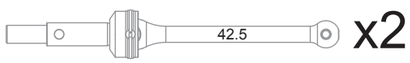
1:1 Scale

NOTICE
R109009

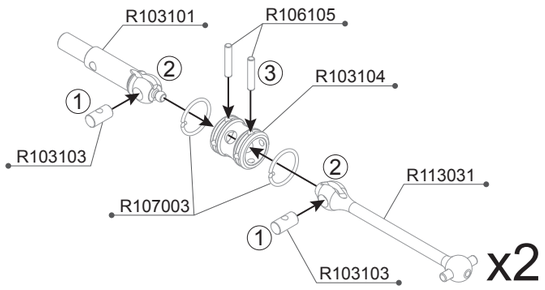


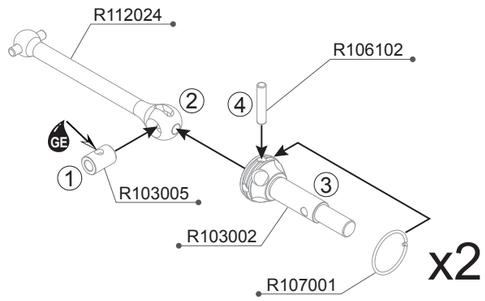
Front 40 DJ CVD

NOTICE
R119017



Rear Aluminum 42.5 CVD

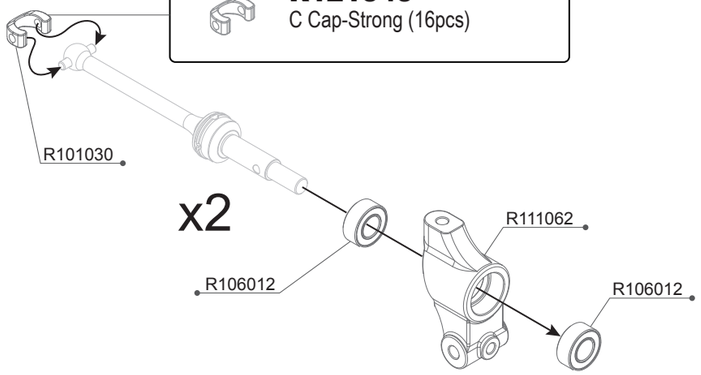


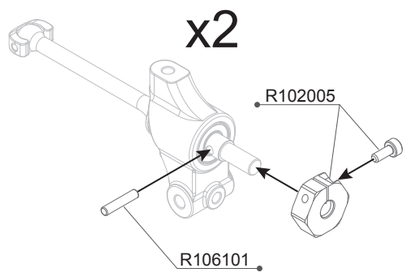


Rear Upright X2

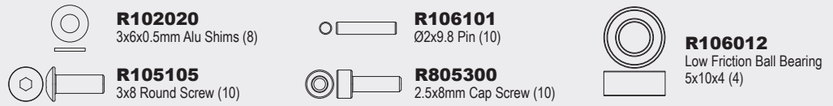
Option Parts (Not Included)

R121040
C Cap-Strong (16pcs)



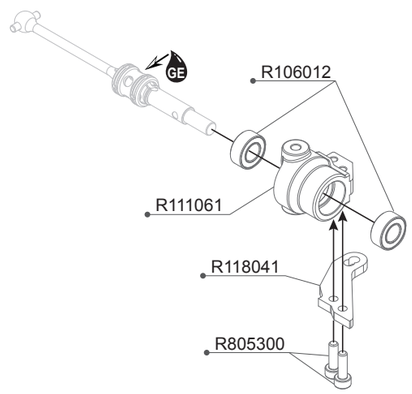


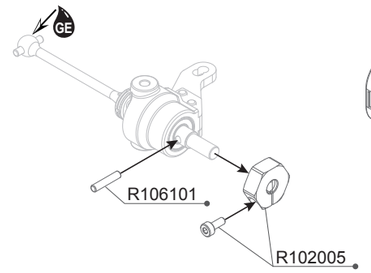
R101030	C Cap 3.5mm(16pcs)	R106101	2x9.8mm Pin (10pcs)
R102005	Hex Wheel Hub Alu(2pcs)	R106102	2x10mm Pin (10pcs)
R103002	Wheel Axle (2pcs)	R106105	1.5x8mm Pin (10pcs)
R103005	CVD Insert(2pcs)	R107001	CVD G-Clip(8pcs)
R103101	D.J CVD Wheel Shaft (1pcs)	R107003	D.J CVD G-Clip(8pcs)
R103103	D.J CVD Insert(2pcs)	R111062	R11 Rear Upright
R103104	D.J CVD Joint (1pcs)	R112024	CVD Rear 42.5mm-Alu (2)
R106012	Low Friction Ball Bearing 5x10x4 (4pcs)	R113031	D.J CVD Shaft +1 (40mm) 2pcs

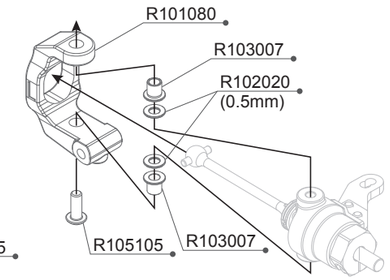


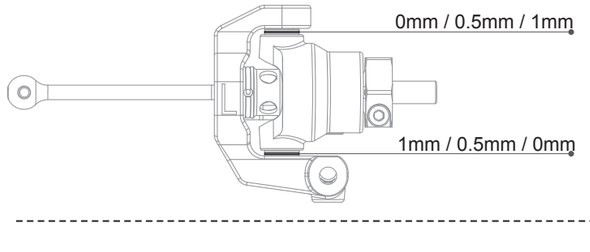
1:1 Scale

Front Steering Block L





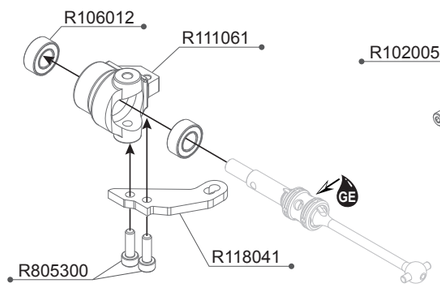


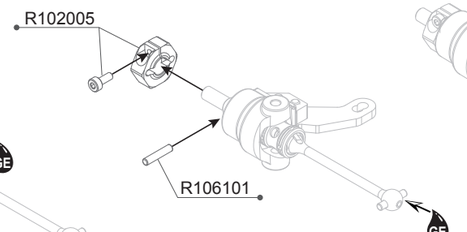


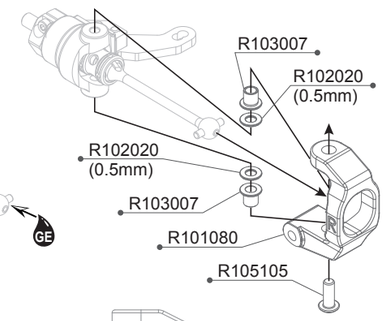
NOTICE

0.5mm shims are used between the steering block and C hub. Axle height can be varied by moving these shims. Generally, higher axle height will increase steering response - good for smaller/technical layouts.

Front Steering Block R

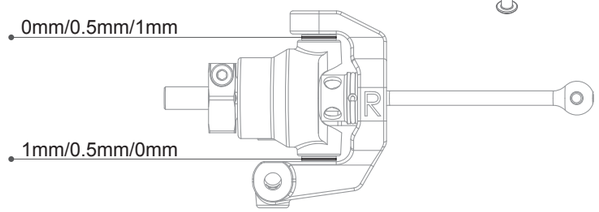






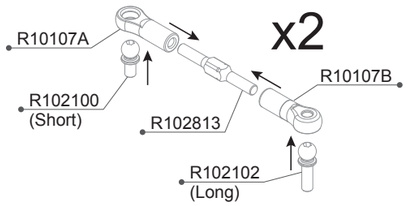
NOTICE

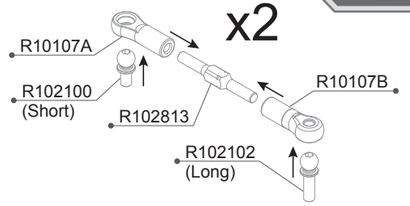
0.5mm shims are used between the steering block and C hub. Axle height can be varied by moving these shims. Generally, higher axle height will increase steering response - good for smaller/technical layouts.



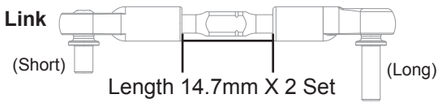
R101080	C-Hub 4 Right + Left	R106012	Low Friction Ball Bearing 5x10x4 (4pcs)
R102005	Hex Wheel Hub Alu(2pcs)	R106101	2x9.8mm Pin (10pcs)
R102020	3x6x0.5mm Alu Shims(8pcs)	R111061	R11 Steering Block
R103007	Steering Block Bushing(4pcs)	R118041	R11 Steering Plate-Std (2)
R105105	3x8 Round Screw (10)	R805300	2.5x8mm Cap Screw (10)

BAG 04

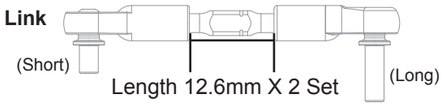




Front Link

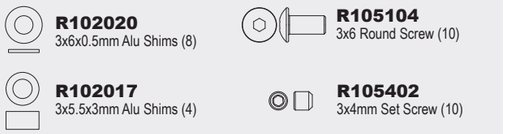


Rear Link



R10107A	Ball Joint 4.9mm Open (6pcs)	R102102	Alu 4.9mm Ball End Long(4pcs)
R10107B	Ball Joint 4.9mm Closed (4pcs)	R102813	Turnbuckle 3x28mm ALU-7075 (2pcs)
R102100	Alu 4.9mm Ball End Short(4pcs)		

BAG 04



R102020
3x6x0.5mm Alu Shims (8)

R105104
3x6 Round Screw (10)

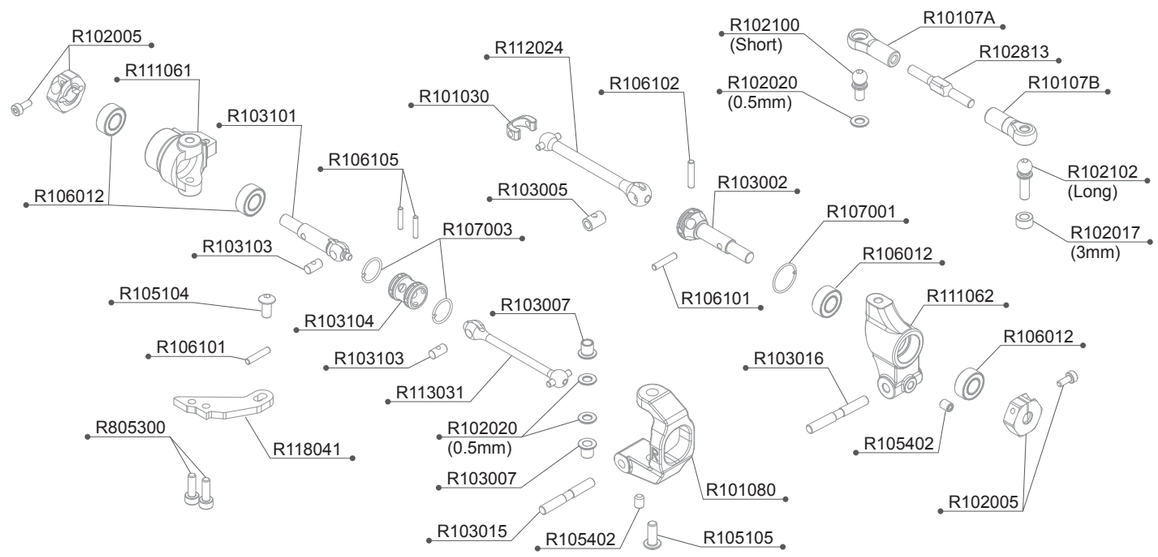
R102017
3x5.5x3mm Alu Shims (4)

R105402
3x4mm Set Screw (10)

1:1 Scale

R102017	3X5.5X3mm Alu Shims(4pcs)	R103016	Pivot Pin Rear-Out(2pcs)
R102020	3x6x0.5mm Alu Shims(8pcs)	R105104	3x6 Round Screw (10)
R103015	Pivot Pin Front-Out(2pcs)	R105402	3x4mm Set Screw (10)

R12 BAG 04 PARTS EXPLODED VIEW



R12 BAG 04 PARTS LIST

R101030	C Cap 3.5mm(16pcs)	R103104	D.J CVD Joint (1pcs)
R10107A	Ball Joint 4.9mm Open (6pcs)	R105104	3x6 Round Screw (10)
R10107B	Ball Joint 4.9mm Closed (4pcs)	R105105	3x8 Round Screw (10)
R101080	C-Hub 4 Right + Left	R105402	3x4mm Set Screw (10)
R102005	Hex Wheel Hub Alu(2pcs)	R106012	Low Friction Ball Bearing 5x10x4 (4pcs)
R102017	3X5.5X3mm Alu Shims(4pcs)	R106101	2x9.8mm Pin (10pcs)
R102020	3x6x0.5mm Alu Shims(8pcs)	R106102	2x10mm Pin (10pcs)
R102100	Alu 4.9mm Ball End Short(4pcs)	R106105	1.5x8mm Pin (10pcs)
R102102	Alu 4.9mm Ball End Long(4pcs)	R107001	CVD G-Clip(8pcs)
R102813	Turnbuckle 3x28mm ALU-7075 (2pcs)	R107003	D.J CVD G-Clip(8pcs)
R103002	Wheel Axle (2pcs)	R111061	R11 Steering Block
R103005	CVD Insert(2pcs)	R111062	R11 Rear Upright
R103007	Steering Block Bushing(4pcs)	R112024	CVD Rear 42.5mm-Alu (2)
R103015	Pivot Pin Front-Out(2pcs)	R113031	D.J CVD Shaft +1 (40mm) 2pcs
R103016	Pivot Pin Rear-Out(2pcs)	R118041	R11 Steering Plate-Std (2)
R103101	D.J CVD Wheel Shaft (1pcs)	R805300	2.5x8mm Cap Screw (10)
R103103	D.J CVD Insert(2pcs)		

1:1 SCALE



R102017
3x5.5x3mm Alu Shims (4)



R105104
3x6 Round Screw (10)

R106101
Ø2x9.8 Pin (10)



R102020
3x6x0.5mm Alu Shims (8)



R105105
3x8 Round Screw (10)

R106102
Ø2x10 Pin (10)

R105402
3x4mm Set Screw (10)



R106012
Low Friction Ball Bearing
5x10x4

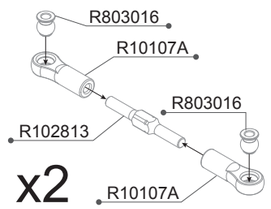
R106105
Ø1.5x8.1 Pin (10)



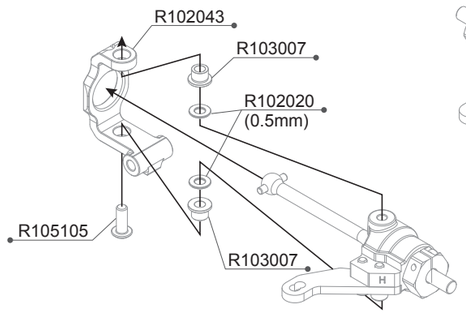
R105300
3x6mm Cap Screw (10)

OPTION PARTS R129004 R12 ATS SYSTEM (Not Included)

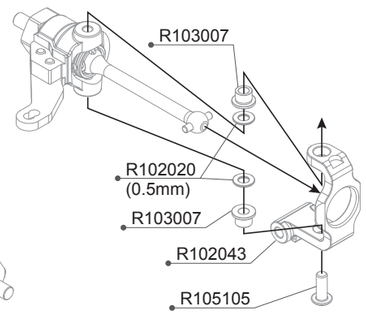
ATS Link

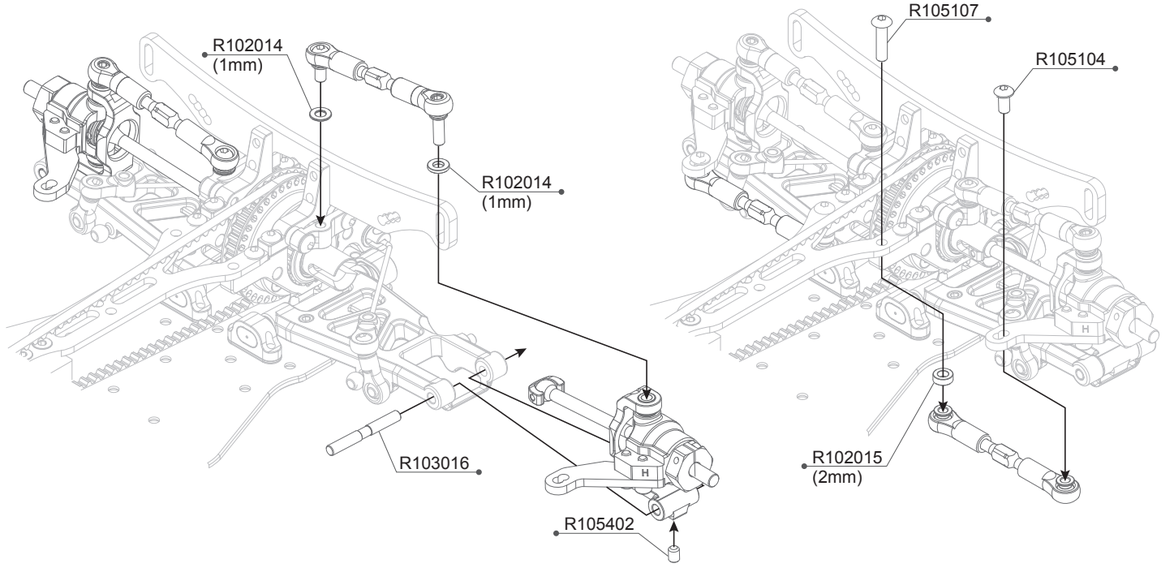


Left Side



Right Side





R129004 R12 ATS SYSTEM PARTS LIST

R10107A	Ball Joint 4.9mm Open (6pcs)	R103016	Pivot Pin Rear-Out(2pcs)
R102014	3x5.5x1mm Alu Shims(8pcs)	R105104	3x6 Round Screw (10)
R102015	3x5.5x2mm Alu Shims(8pcs)	R105105	3x8 Round Screw (10)
R102020	3x6x0.5mm Alu Shims(8pcs)	R105107	3x12 Round Screw (10)
R102043	ATS C-Hub (Alu) 2pcs	R105402	3x4mm Set Screw (10)
R102813	Turnbuckle 3x28mm ALU-7075 (2pcs)	R803016	Ball Head 4.9mm (4)
R103007	Steering Block Bushing(4pcs)		

1:1 SCALE



R102014
3x5.5x1mm Alu Shims (8)



R102015
3x5.5x2mm Alu Shims (8)



R102020
3x6x0.5mm Alu Shims (8)



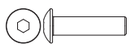
R105402
3x4mm Set Screw (10)



R105104
3x6 Round Screw (10)



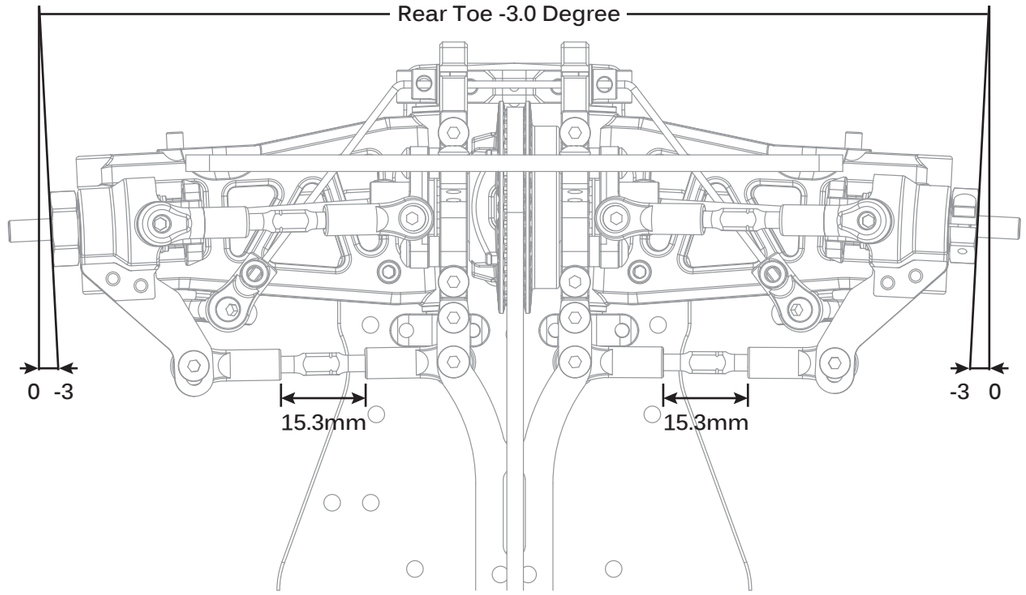
R105105
3x8 Round Screw (10)



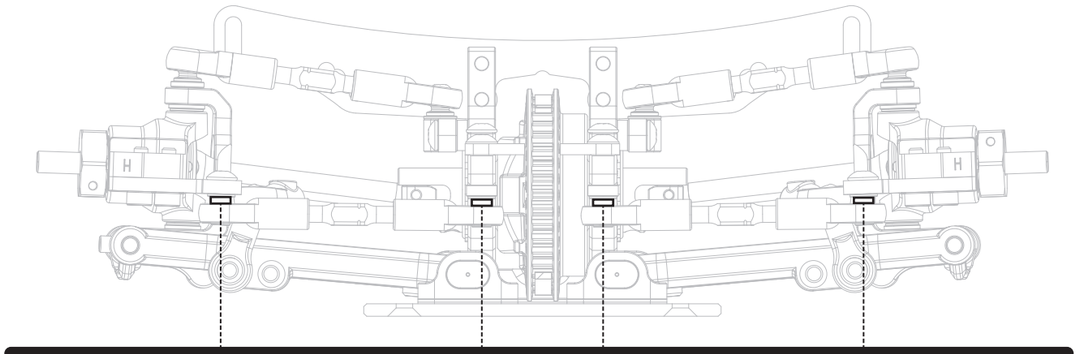
R105107
3x12 Round Screw (10)

R12 ATS SETUP INSTRUCTION

R12 ATS DEFAULT SETUP



The default rear toe setup for the R12 is -3.0 degrees. When installing ATS, please setup toe linkage at 15.3mm to achieve -3.0 degrees. The rear toe can be changed by adjusting the rear toe linkage length or suspension block inserts - with a longer link resulting in less rear toe.



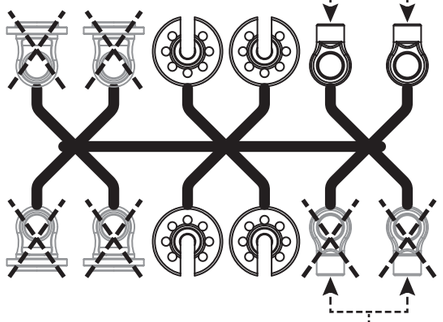
There are 4 locations where shims can be added/removed to setup the amount of toe angle change during cornering. The default setup is 2mm inside and 0mm outside. The angle of the ATS linkage will affect the amount of toe angle change - the flatter the linkage angle, the lower the amount of toe angle change.

NOTICE

R101130 Shock Ball Joint Set Big Bore

Short Ball End

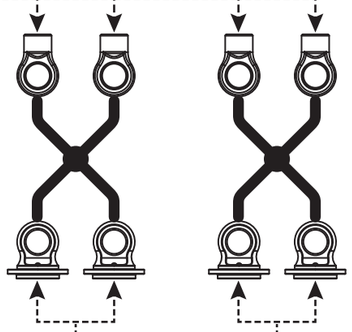
Long Ball End

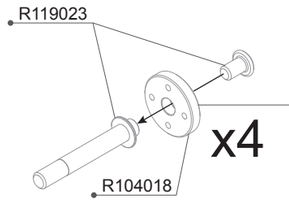


R111050 Shock Ball End Set-Ultra Short (2)

Short Ball End | Short Ball End

Using only R111050 ultra short upper ball end

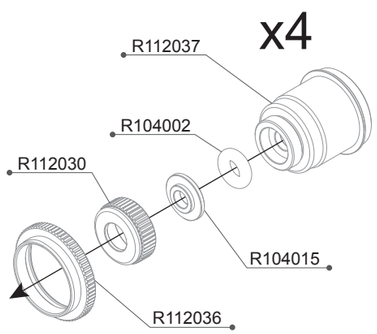




Option Parts (Not Included)

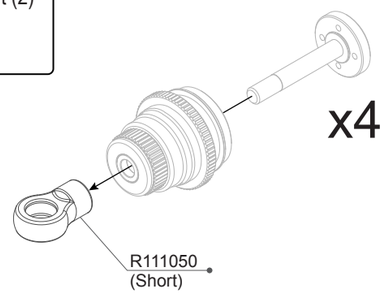
R114010
PDS Pistion (2)

Apply shock oil before assembly



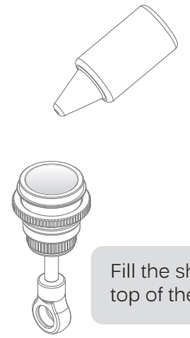
Option Parts (Not Included)

R112038
PDS Cylinder-Ultra Short (2)



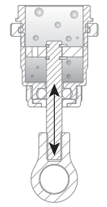
R104002 O'ring 3x2(4pcs)
R104013 O'ring 13x1 (2pcs)
R104015 Shock Shaft Shim (4pcs)
R104018 Shock Piston Big Bore 1.1mm x4 (4pcs)
R111050 Shock Ball End Set-Ultra Short (2)
R112030 R11 Shock Low Cap-Black (2)
R112036 Shock Adj Nut-Ultra Short (2)
R112037 Shock Body Ultra Short-MC (2)
R119023 Short Shock Shaft -Screw Type (4)

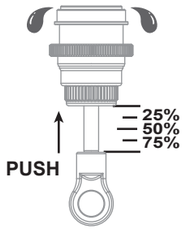
Silicone Oil #500



Fill the shock oil to the top of the shock body

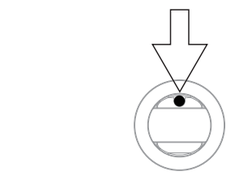
Move the shaft up and down to let the air escape from the oil



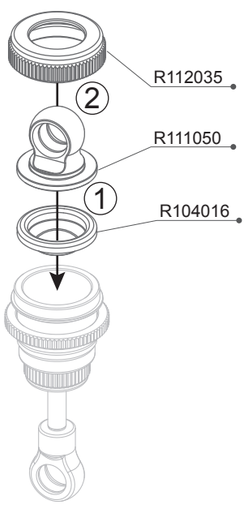


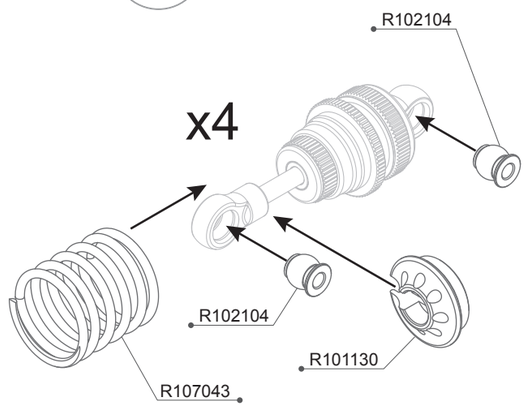
To adjust the rebound amount of the shock, push the shock shaft in to the required level to remove excess oil during assembly.

Drill the shock cap here to help provide zero rebound and softer dampening (optional setting)



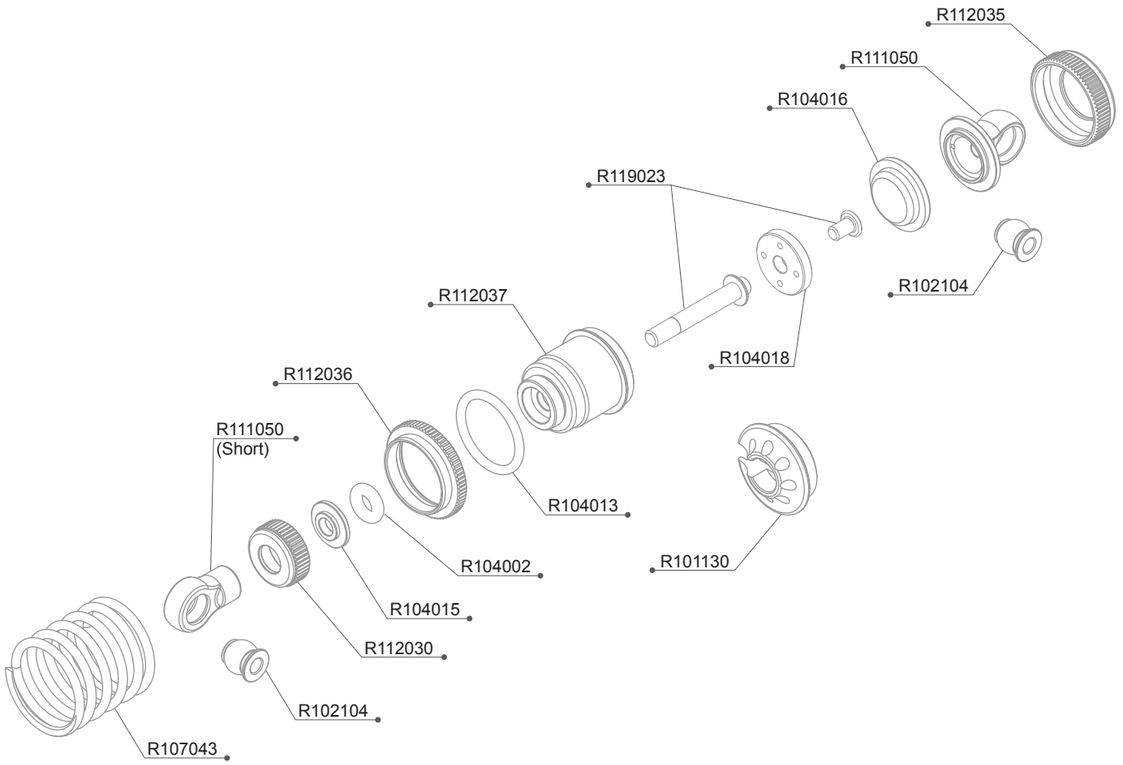
x4





R101130 Shock Ball Joint Set Big Bore
R102104 5.8mm Ball end Short type Alu (4pcs)
R104016 Shock Membrane Big Bore (4pcs)
R107043 Shock Spring 0.28g Green (Short) (2pcs)
R111050 Shock Ball End Set-Ultra Short (2)
R112035 Shock Cap-Ultra Short (2)

R12 BAG 05 PARTS EXPLODED VIEW



R12 BAG 05 PARTS LIST

R101130	Shock Ball Joint Set Big Bore	R107043	Shock Spring 0.28g Green (Short) (2pcs)
R102104	5.8mm Ball end Short type Alu (4pcs)	R111050	Shock Ball End Set-Ultra Short (2)
R104002	O'ring 3x2(4pcs)	R112030	R11 Shock Low Cap-Black (2)
R104013	O'ring 13x1 (2pcs)	R112035	Shock Cap-Ultra Short (2)
R104015	Shock Shaft Shim (4pcs)	R112036	Shock Adj Nut-Ultra Short (2)
R104016	Shock Membrane Big Bore (4pcs)	R112037	Shock Body Ultra Short-MC (2)
R104018	Shock Piston Big Bore 1.1mm x4 (4pcs)	R119023	Short Shock Shaft -Screw Type (4)

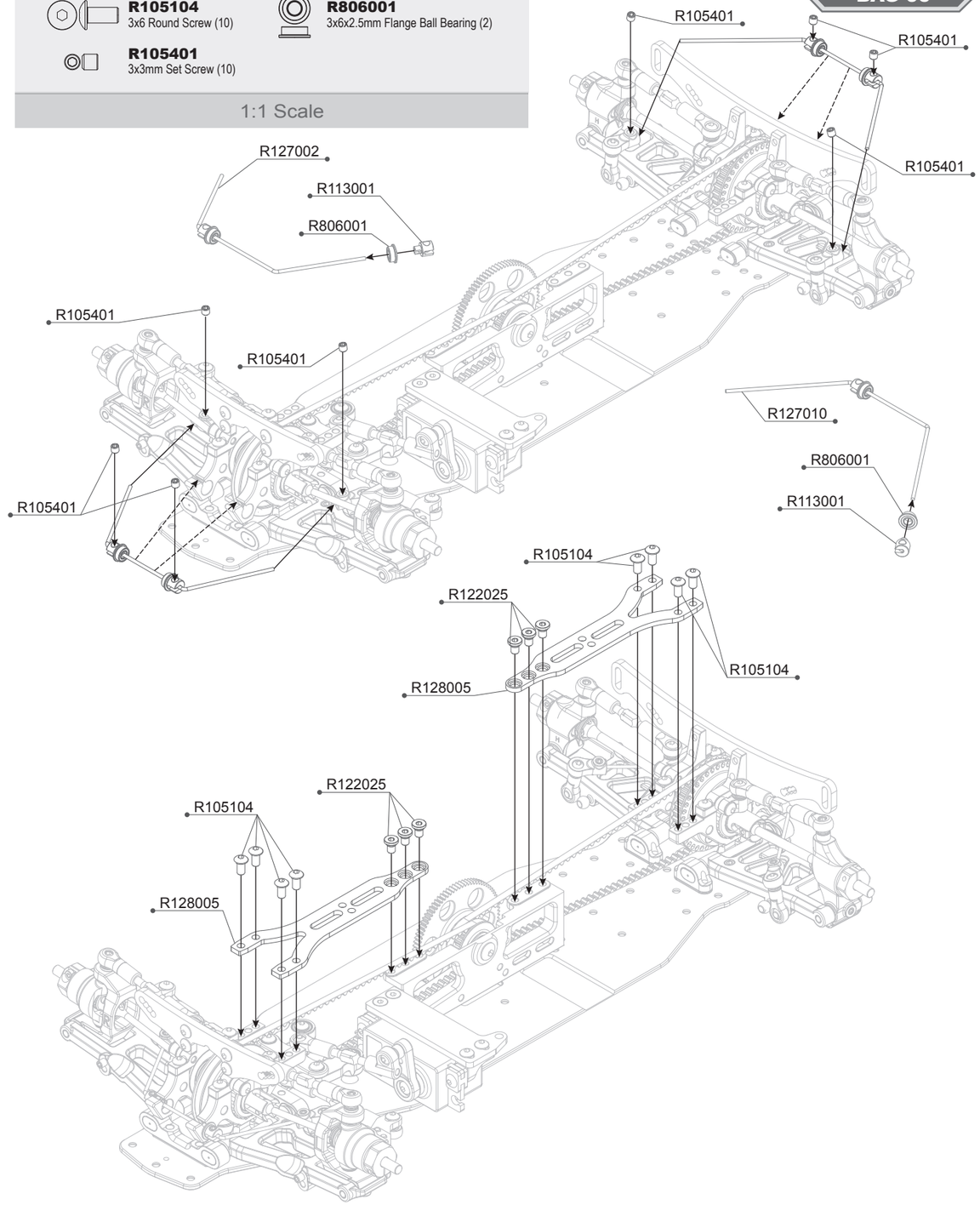
BAG 06

R105104
3x6 Round Screw (10)

R806001
3x6x2.5mm Flange Ball Bearing (2)

R105401
3x3mm Set Screw (10)

1:1 Scale



R105104	3x6 Round Screw (10)	R127002	R12 Front Anti-Roll Bar 1.3mm
R105401	3x3mm Set Screw (10)	R127010	R12 Rear Anti-Roll Bar 1.3mm
R113001	Anti-Roll Bar Holder (2)	R128005	R12 Upper Deck 2.0mm
R122025	R12 Upper Deck Screw (4)	R806001	3x6x2.5 Flange Ball Bearing (2)

BAG 06

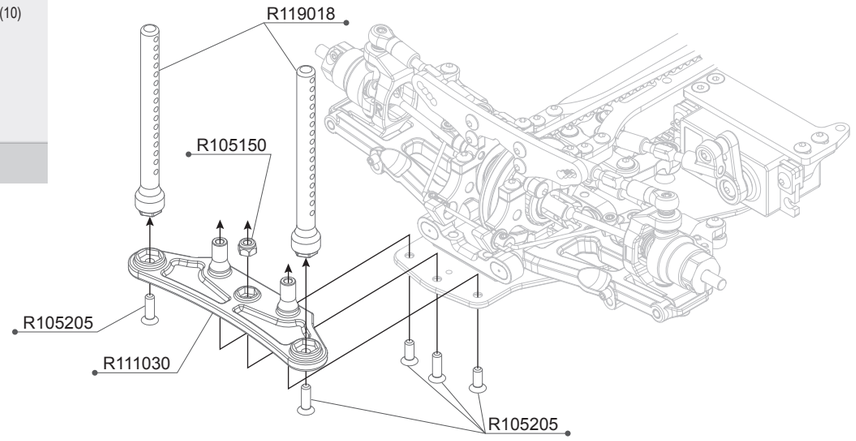


R105205
3x10mm Flat Screw (10)



R105150
3mm Nylon Nut (10)

1:1 Scale



R105150	3mm Nylon Nut (10)	R111030	R11 2019 Bumper Set
R105205	3x10mm Flat Screw (10)	R119018	R11 Body Mount Set

BAG 06

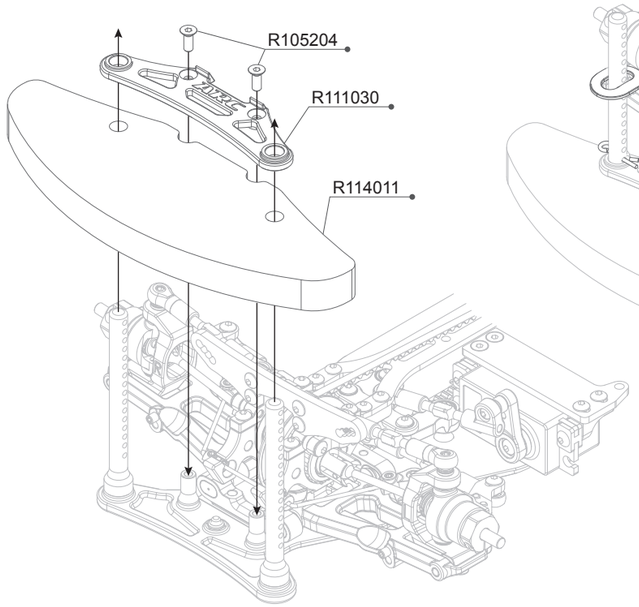


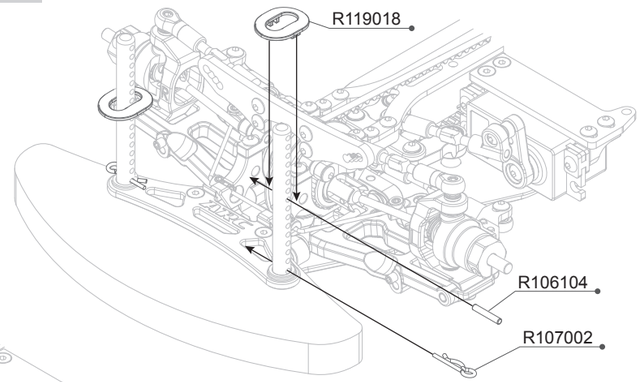
R105204
3x8mm Flat Screw (10)



R106104
Ø2x11.8 Pin (10)

1:1 Scale





R105204	3x8mm Flat Screw (10)	R111030	R11 2019 Bumper Set
R106104	2x11.8mm Pin (10pcs)	R114011	R11 2019 Foam Bumper-STD
R107002	R-Clip(8pcs)	R119018	R11 Body Mount Set

BAG 06

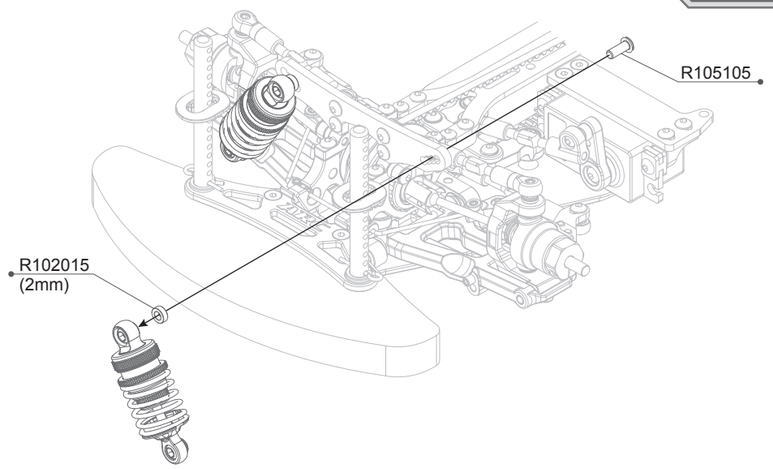


R105105
3x8 Round Screw (10)



R102015
3x5.5x2mm Alu Shims (8)

1:1 Scale



R102015	3x5.5x2mm Alu Shims(8pcs)	R105105	3x8 Round Screw (10)

BAG 06



R102015
3x5.5x2mm Alu Shims (8)



R105105
3x8 Round Screw (10)

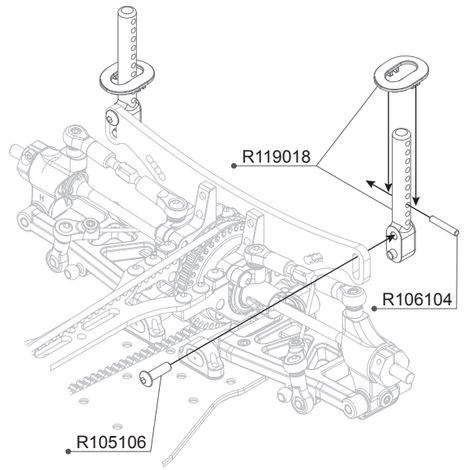


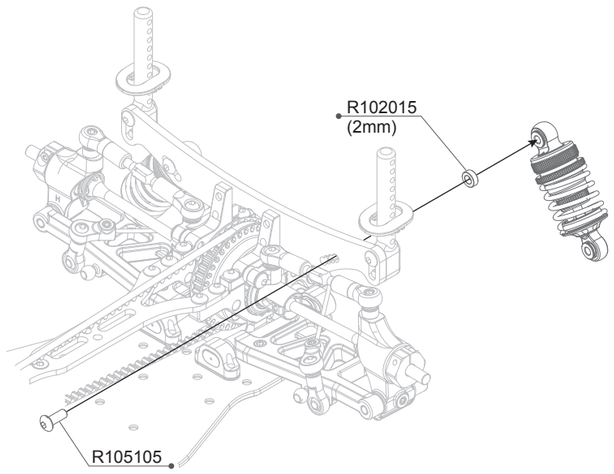
R105106
3x10 Round Screw (10)



R106104
Ø2x11.8 Pin (10)

1:1 Scale

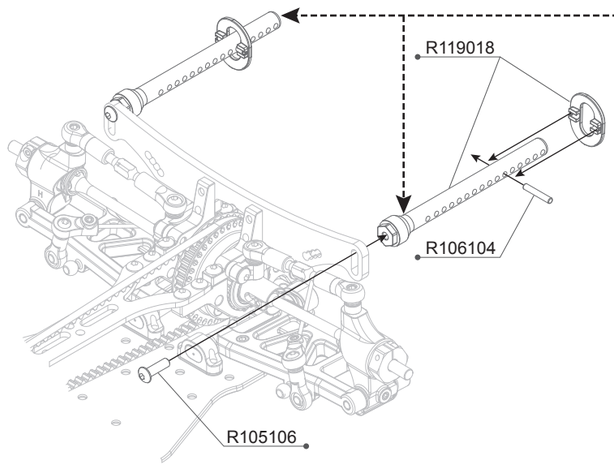




R102015	3x5.5x2mm Alu Shims(8pcs)	R106104	2x11.8mm Pin (10pcs)
R105105	3x8 Round Screw (10)	R119018	R11 Body Mount Set
R105106	3x10 Round Screw (10)		

Option Parts (Not Included)

R119018 R11 Body Mount Set

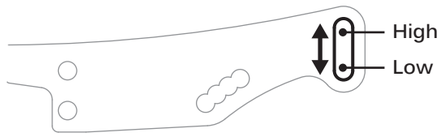


NOTICE

The extra front body posts required for the rear horizontal body post setup are not included.

NOTICE

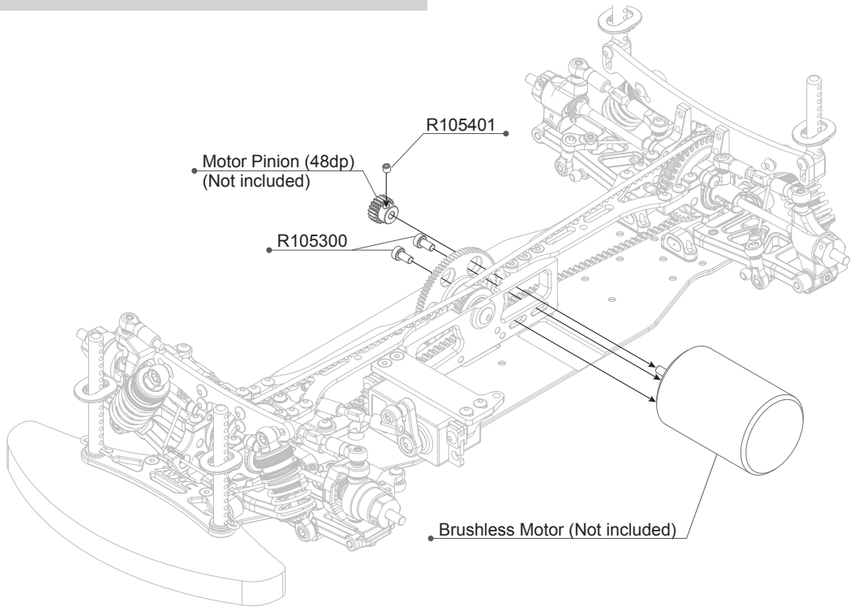
When using the rear horizontal body post setup, a 7mm height adjustment is available on the R12 Rear Shock Tower, from Low to High setting.



R105300
3x6mm Cap Screw (10)

R105401
3x3mm Set Screw (10)

1:1 Scale



R105300	3x6mm Cap Screw (10)	R105401	3x3mm Set Screw (10)



R121015
Plastic Shims (1/2/3MM)

R105203
3x6mm Flat Screw (10)

R105206
3x12mm Flat Screw (10)

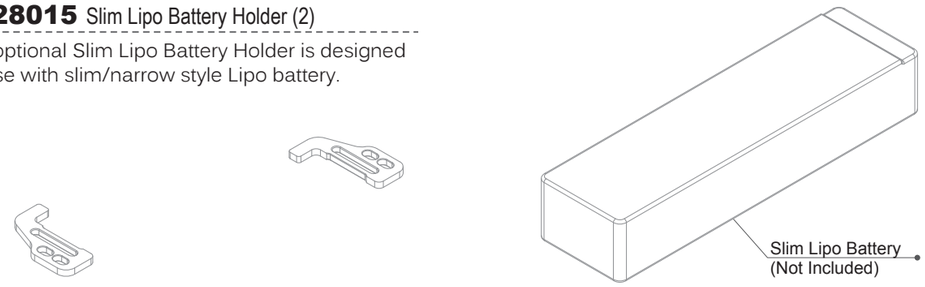
R115001
3mm Nylon Nut-Black Alu (4)

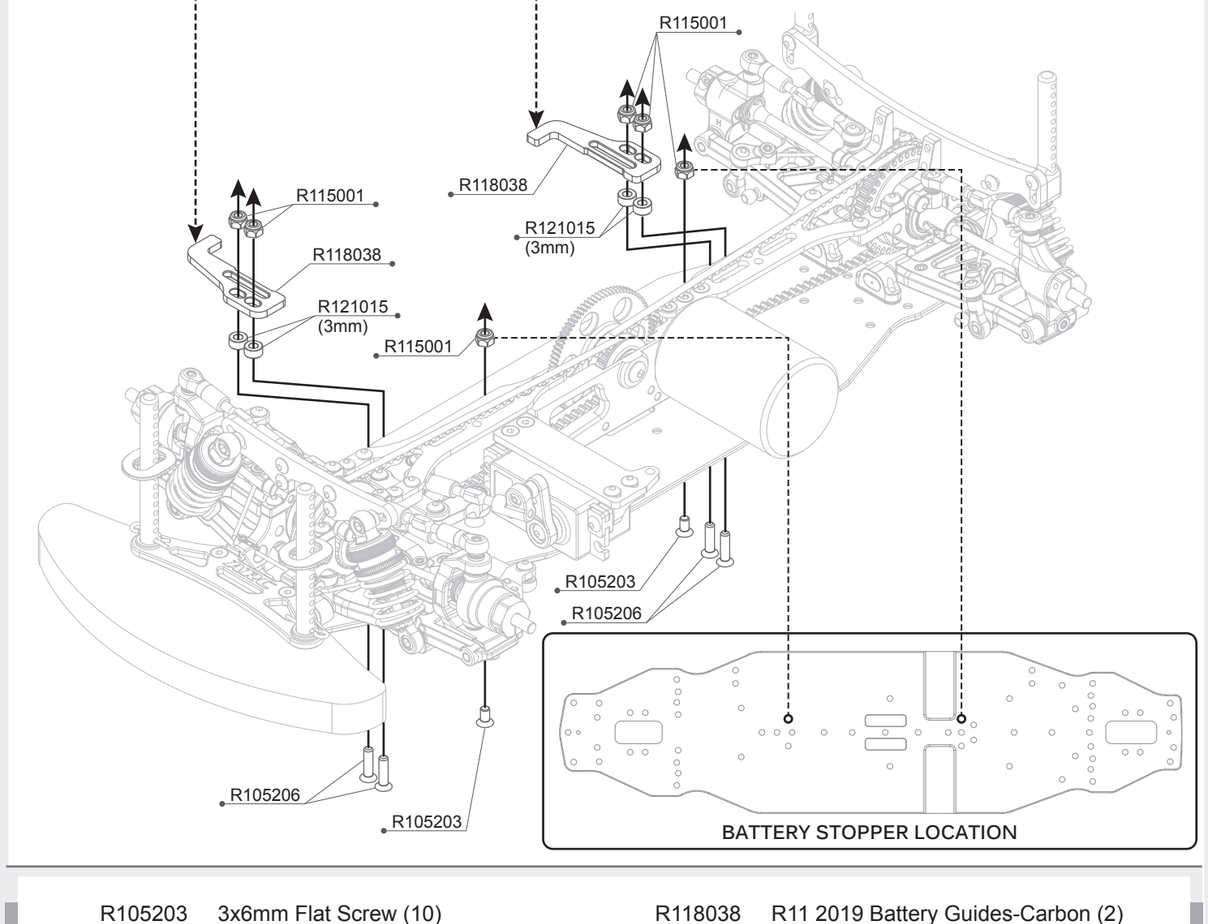
1:1 Scale

Option Parts (Not Included)

R128015 Slim Lipo Battery Holder (2)

The optional Slim Lipo Battery Holder is designed for use with slim/narrow style Lipo battery.

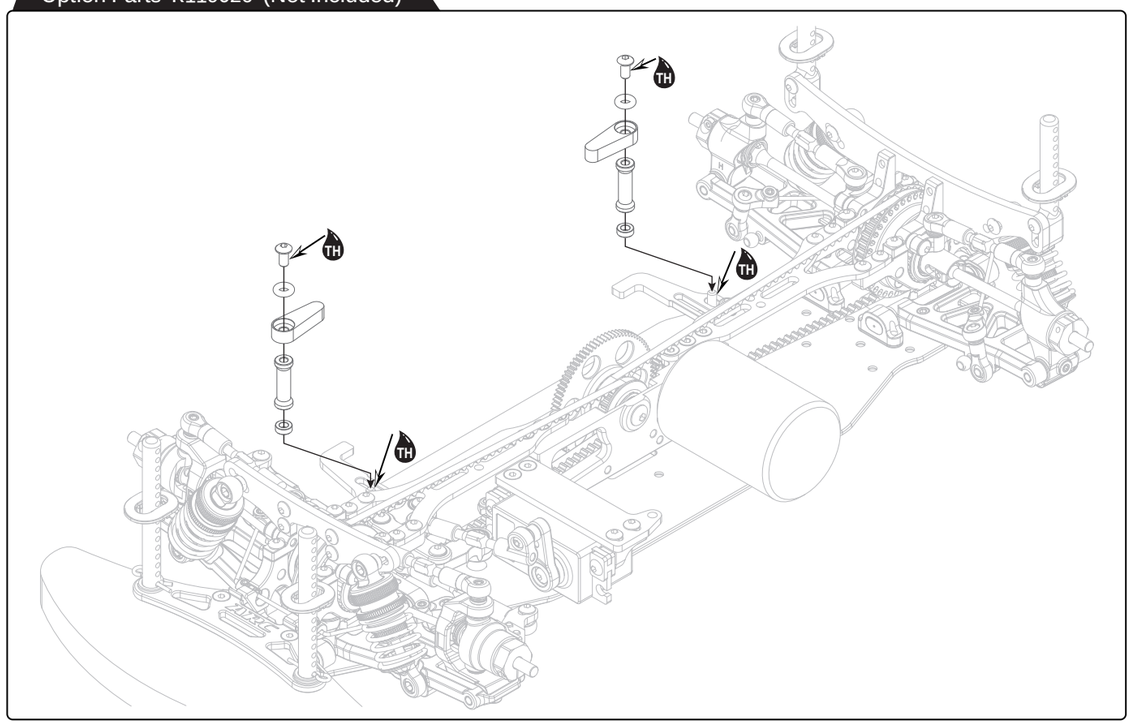




R105203	3x6mm Flat Screw (10)	R118038	R11 2019 Battery Guides-Carbon (2)
R105206	3x12mm Flat Screw (10)	R121015	Plastic Shims (1/2/3mm)
R115001	3mm Nylon Nut-Black Alu (4)		

BAG 06

Option Parts R119026 (Not Included)



BAG 06



R105106
3x10 Round Screw (10)



R805010
3x5mm Flat Screw (10)

1:1 Scale

Option Parts (Not Included)

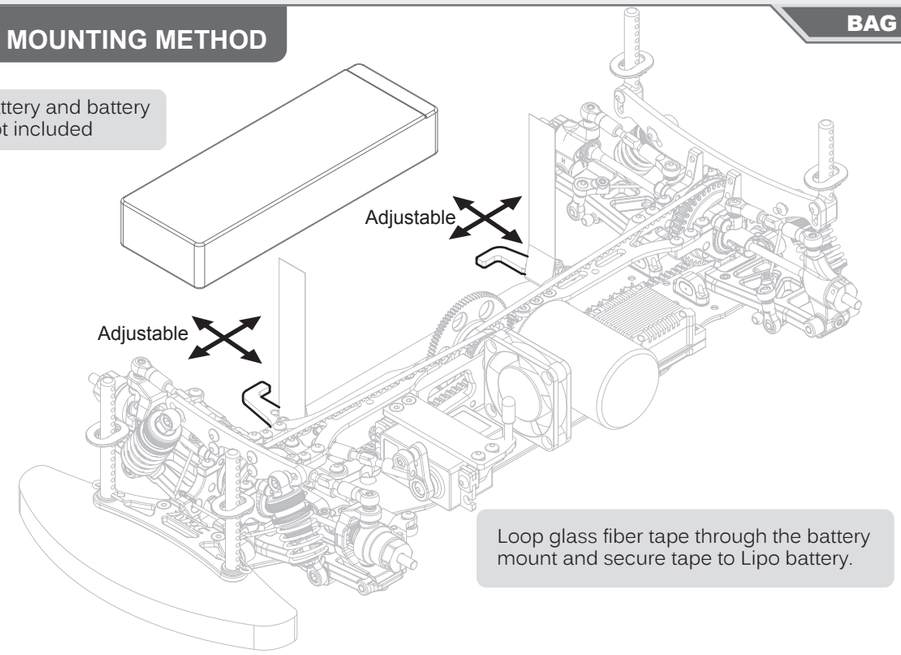
TiTAN 21002 H.V Motor cooling Fan

R104150 Antenna (1set)
R105106 3x10 Round Screw (10)
R111064 R11 Motor Fan Mount
R805010 3x5mm Flat Screw (10)

BAG 06

BATTERY MOUNTING METHOD

Lipo battery and battery tape not included



Loop glass fiber tape through the battery mount and secure tape to Lipo battery.

BAG 06

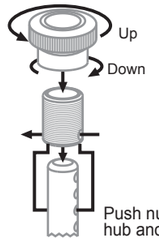
Option Parts (Not Included)

60603-V3 ADJUSTABLE BODY POST (4SET)

Use on all 6mm body posts. Light weight with ultra height adjustment of body shell.



Insert O'ring into nut slot.



Push nut into thread hub and adjust.



R105151
4mm Nylon Nut (4)

1:1 Scale

Option Parts (Not Included)

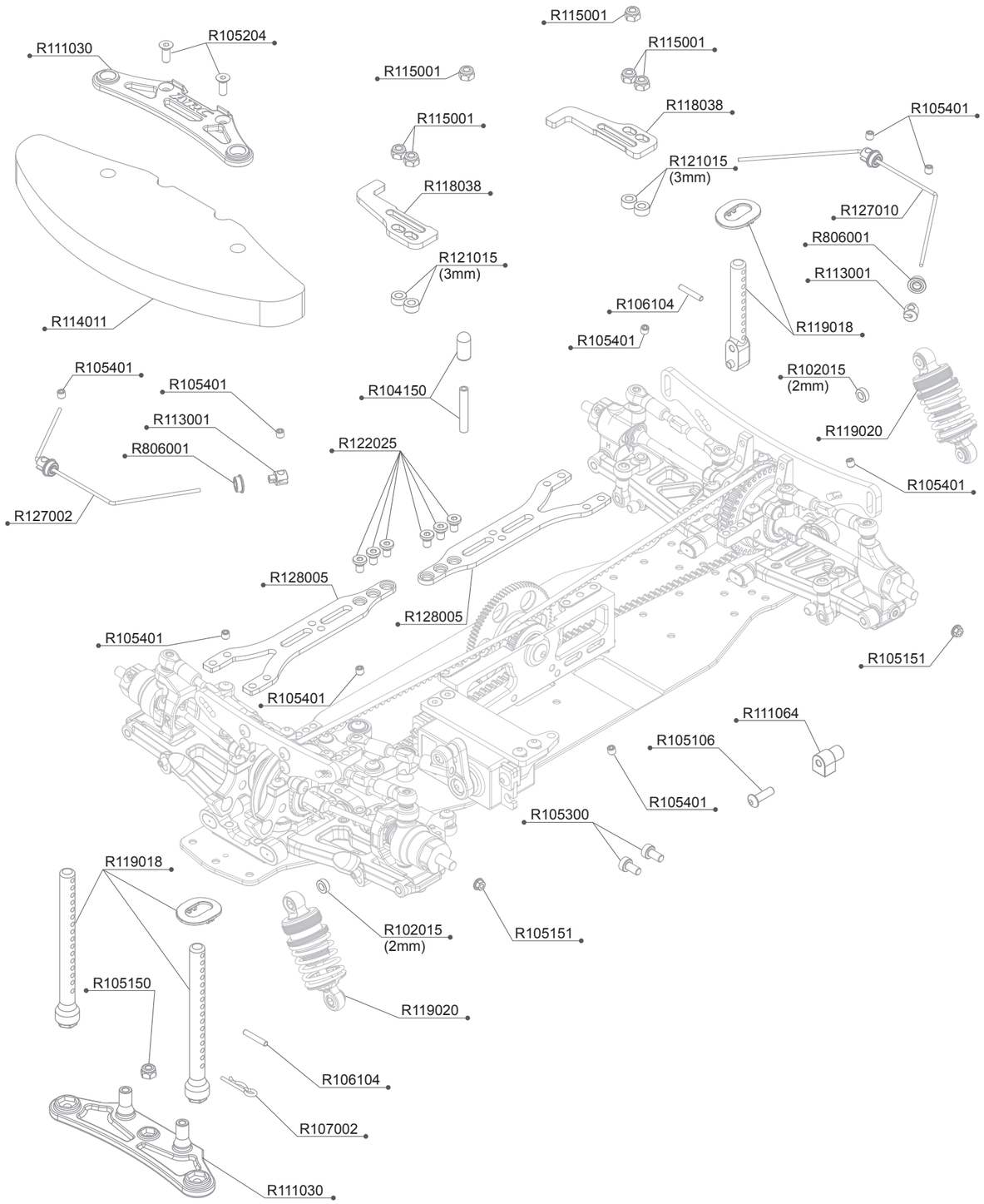
R103028 4x11x0.25mm Shims (8)

R103029 4x11x0.5mm Shims (8)

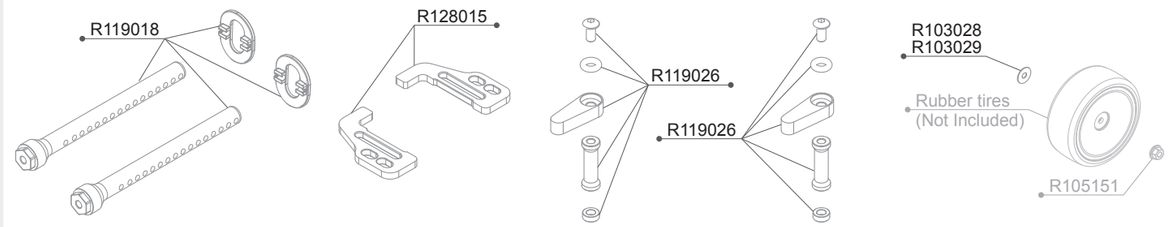
The track width can be increased by adding R103028 (0.25mm) and R103029 (0.5mm).

R105151 4mm Nylon Nut (4)

R12 BAG 06 PARTS EXPLODED VIEW



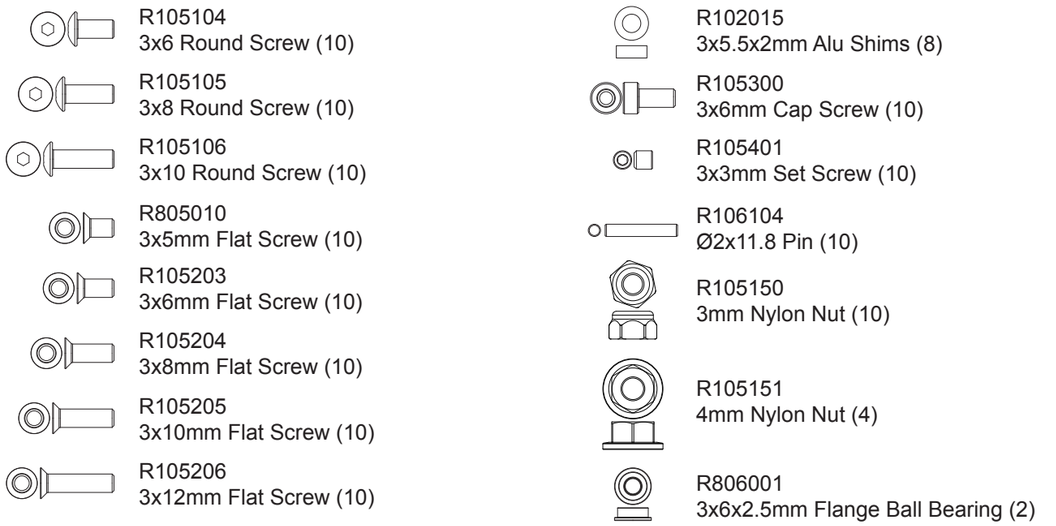
R12 OPTION PARTS EXPLODED VIEW



R12 BAG 06 PARTS LIST

R102015	3x5.5x2mm Alu Shims(8pcs)
R104150	Antenna (1set)
R105104	3x6 Round Screw (10)
R105105	3x8 Round Screw (10)
R105106	3x10 Round Screw (10)
R105150	3mm Nylon Nut (10)
R105151	4mm Nylon Nut (4)
R105203	3x6mm Flat Screw (10)
R105204	3x8mm Flat Screw (10)
R105205	3x10mm Flat Screw (10)
R105206	3x12mm Flat Screw (10)
R105300	3x6mm Cap Screw (10)
R105401	3x3mm Set Screw (10)
R106104	Ø2x11.8 Pin (10)
R107002	R-Clip(8pcs)
R111030	R11 2019 Bumper Set
R111064	R11 Motor Fan Mount
R113001	Anti-Roll Bar Holder (2)
R114011	R11 2019 Foam Bumper-STD
R115001	3mm Nylon Nut-Black Alu (4)
R118038	R11 2019 Battery Guides-Carbon (2)
R119018	R11 Body Mount Set
R119020	R11 2019 Shock Set Ultra Short
R121015	Plastic Shims (1/2/3) mm
R122025	R12 Upper Deck Screw (4)
R127002	R12 Front Anti-Roll Bar 1.3mm
R127010	R12 Rear Anti-Roll Bar 1.3mm
R128005	R12 Upper Deck 2.0mm
R805010	3x5mm Flat Screw (10)
R806001	3x6x2.5 Flange Ball Bearing (2)

1:1 SCALE



R12 BAG 06 OPTION PARTS LIST

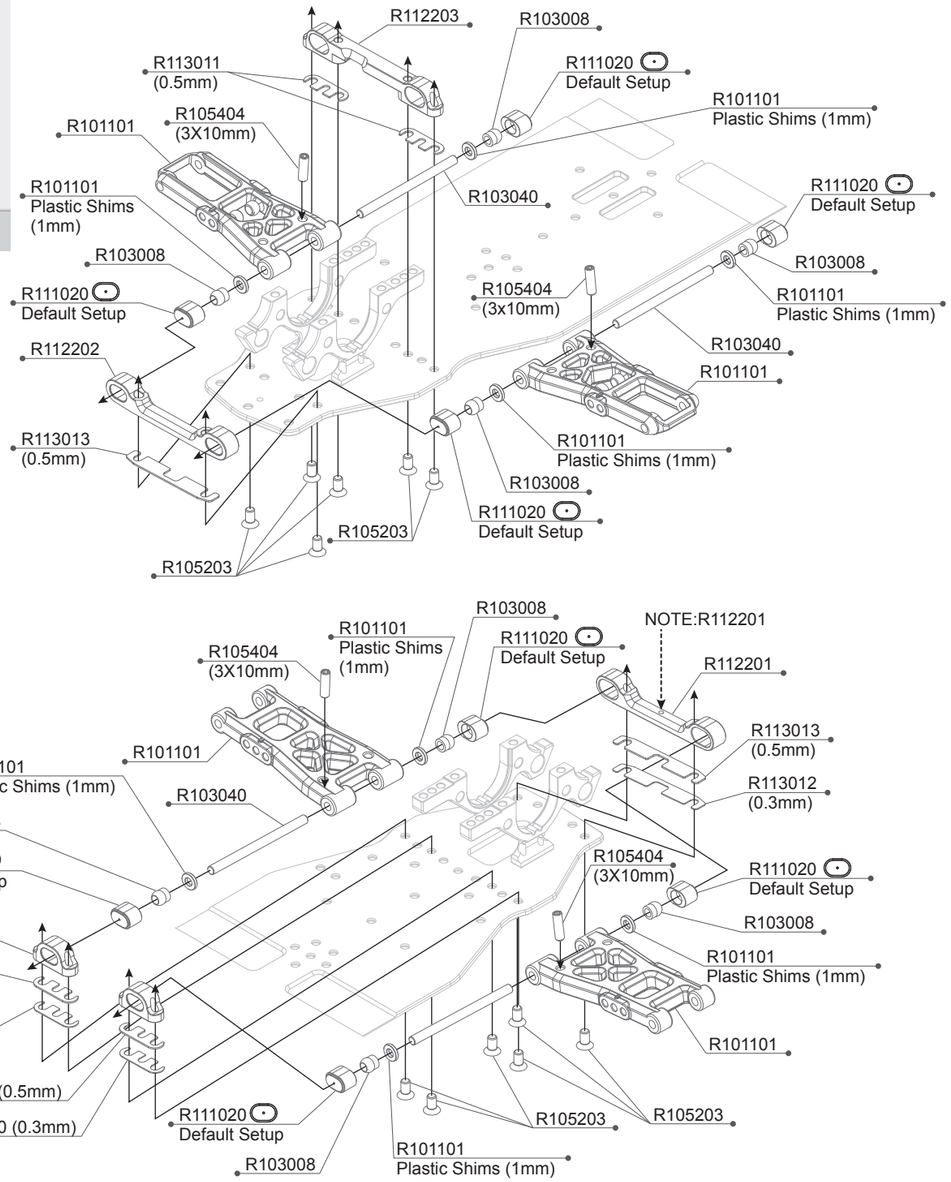
R128015	Slim Lipo Battery Holder (2)
R103028	4x11x0.25mm Shims (8)
R103029	4x11x0.5mm Shims (8)
R119018	R11 Body Mount Set
R119026	R11F Battery Holder (2)

INSTALL SHORT ARMS ON R12

R105404
3x10mm Set Screw (10)

R105203
3x6mm Flat Screw (10)

1:1 Scale



NOTICE

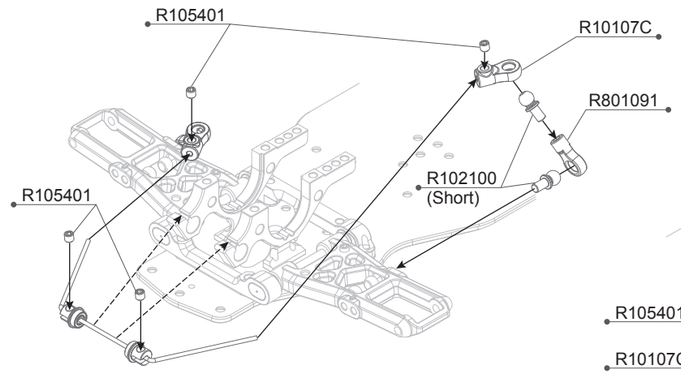
All short arm spare parts shown above are not included in R12 kit.

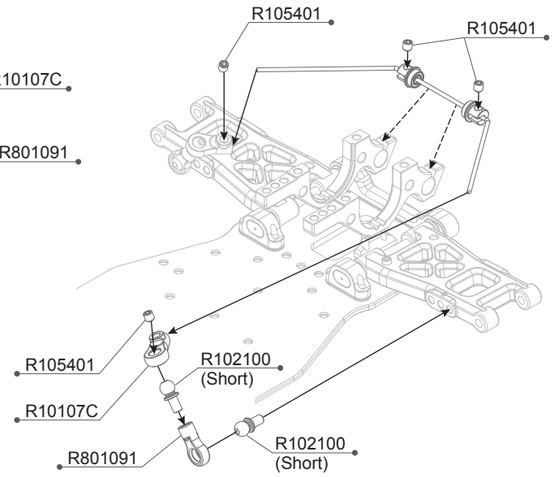
R101101	Low Arm F/R Set (Hard)	R112201	R11 Suspension Block RR
R103008	Ball 5mm(4pcs)	R112202	R11 Suspension Block FF
R103040	Pivot Pin Inner-Short (2pcs)	R112203	R11 Suspension Block FR
R105203	3x6mm Flat Screw (10)	R113010	R11 Roll Center Shims-Narrow 0.3mm (4)
R105404	3x10mm Set Screw (10)	R113011	R11 Roll Center Shims-Narrow 0.5mm (4)
R111020	Suspension Insert #0~#+2	R113012	R11 Roll Center Shims 0.3mm (4)
R112200	R11 Suspension Block RF (2)	R113013	R11 Roll Center Shims 0.5mm (4)

INSTALL SHORT ARMS ON R12

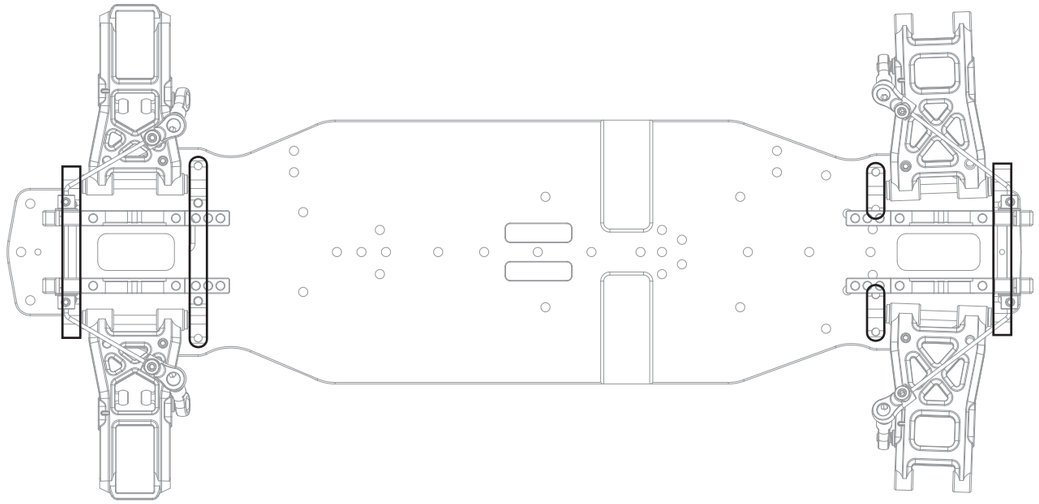
R105401
3x3mm Set Screw (10)

1:1 Scale





NOTICE



The suspension blocks are same as R11 2019. To setup the correct toe angle, please refer to the R12 Short arm suspension block chart in the manual.

R10107C	Anti-Roll Bar Joint (4pcs)	R105401	3x3mm Set Screw (10)
R102100	Alu 4.9mm Ball End Short(4pcs)	R801091	Ball End 4.9mm Short (2)

Suspension Block FR

Suspension Block FF	Pivot Pin Width
0	41.4mm
0.5° 0	42.1mm
1° 0.5° 0	42.8mm
1.5° 1° 0.5° 0	43.5mm
2° 1.5° 1° 0.5° **0**	44.2mm
2.5° 2° 1.5° 1° 0.5° 0	44.9mm
3° 2.5° 2° 1.5° 1° 0.5° 0	45.6mm
3.5° 3° 2.5° 2° 1.5° 1° 0.5° 0	46.3mm
4° 3.5° 3° 2.5° 2° 1.5° 1° 0.5° 0	47.0mm

Traction → Response

Above show front toe-out degree, 0=parallel (Default setup)

Suspension Block RR

Suspension Block RF	
2.5° 3° 3.5° 4° 4.5°	
1.5° 2 2.5° 3° 3.5° 4° 4.5°	
1° 1.5° 2° 2.5° 3° 3.5° 4° 4.5°	
0.5° 1° 1.5° 2° 2.5° 3° 3.5° 4° 4.5°	
0 0.5° 1° 1.5° **2°** 2.5° 3° 3.5° 4°	
0 0.5° 1° 1.5° 2° 2.5° 3° 3.5°	
0 0.5° 1° 1.5° 2° 2.5° 3°	
0 0.5° 1° 1.5° 2° 2.5°	
0 0.5° 1° 1.5° 2°	

Traction → Response

Above show rear toe-in degree, 0=parallel (Default setup for ATS)

Suspension Block FR

Suspension Block FF	Pivot Pin Width
0	29.2mm
0.5° 0	29.9mm
1° 0.5° 0	30.6mm
1.5° 1° 0.5° 0	31.3mm
2° 1.5° 1° 0.5° **0**	32mm
2.5° 2° 1.5° 1° 0.5° 0	32.7mm
3° 2.5° 2° 1.5° 1° 0.5° 0	33.4mm
3.5° 3° 2.5° 2° 1.5° 1° 0.5° 0	34.1mm
4° 3.5° 3° 2.5° 2° 1.5° 1° 0.5° 0	34.8mm

Traction → Response

Above show front toe-out degree, 0=parallel (Default setup)

Suspension Block RR

Suspension Block RF	
3.5° 4° 4.5°	
2.5° 3 3.5° 4° 4.5°	
2° 2.5° 3° 3.5° 4° 4.5°	
1.5° 2° 2.5° 3° 3.5° 4° 4.5°	
1° 1.5° 2° 2.5° **3°** 3.5° 4° 4.5°	
0.5° 1 1.5° 2° 2.5° 3° 3.5° 4° 4.5°	
0° 0.5° 1° 1.5° 2° 2.5° 3° 3.5° 4°	
0° 0.5° 1° 1.5° 2° 2.5° 3° 3.5°	
0° 0.5° 1° 1.5° 2° 2.5°	

Traction → Response

Above show rear toe-in degree, 0=parallel (Default setup for ATS)