

**NOTICE**

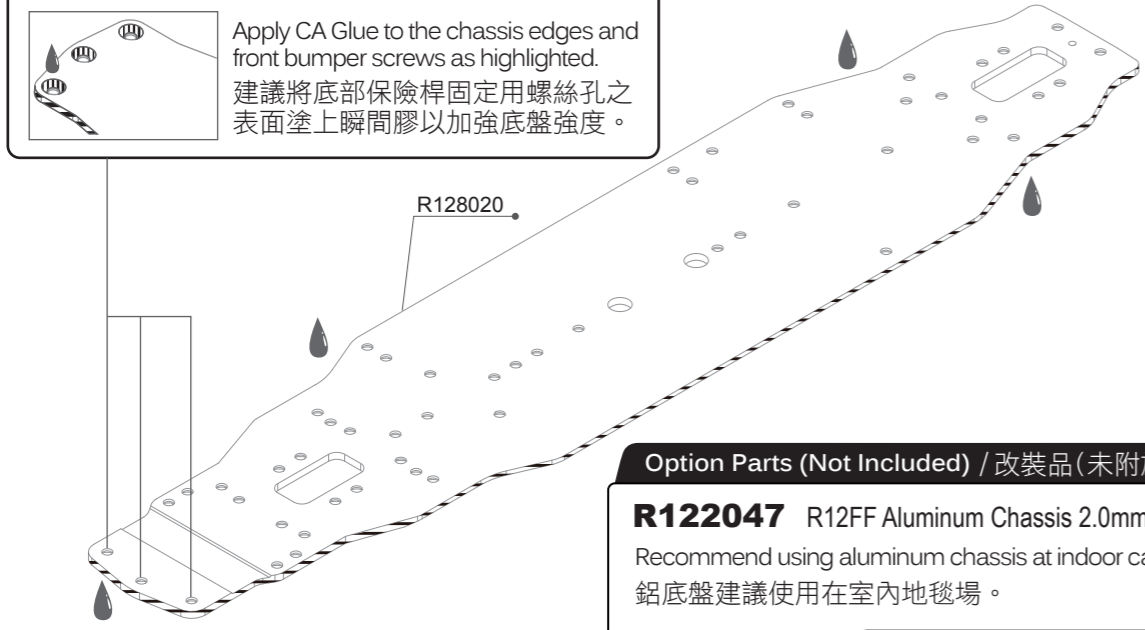
**TH** =Apply Thread Lock Adhesive  
=使用螺絲防鬆膠

**CA** =Apply CA Glue  
=使用瞬間接著劑

**GE** =Apply Grease  
=使用潤滑油

**BAG 01**

**NOTICE**  
Apply CA Glue to the chassis edges and front bumper screws as highlighted.  
建議將底部保險桿固定用螺絲孔之表面塗上瞬間膠以加強底盤強度。



**Option Parts (Not Included) / 改裝品 (未附於套件內)**  
**R122047** R12FF Aluminum Chassis 2.0mm  
Recommend using aluminum chassis at indoor carpet track.  
鋁底盤建議使用在室內地毯場。

R128020 R12FF Carbon Chassis 2.25mm

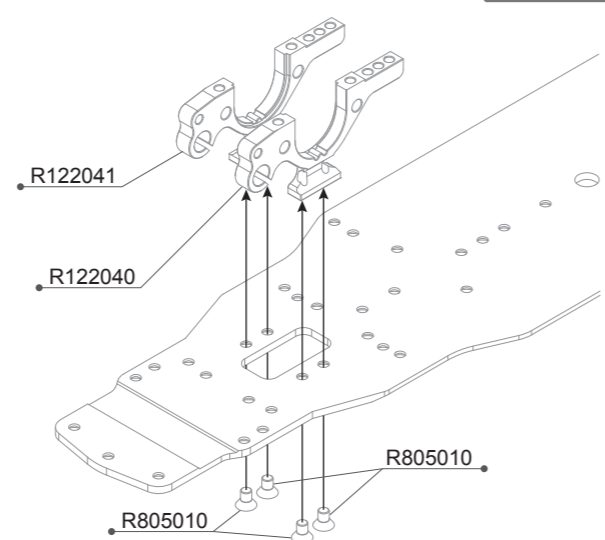
**R805010**  
3x5mm Flat Screw (10)

1:1 Scale

**BAG 01**

**NOTICE**  
The front bulkhead direction (FRONT VIEW).  
前側板組裝方向(正前方視角)。

**R122041** **R122040**  
Cut face outside  
缺角處向外



R122040 R12FF Front-Left Bulkhead  
R122041 R12FF Front-Right Bulkhead

R805010 3x5mm Flat Screw (10)

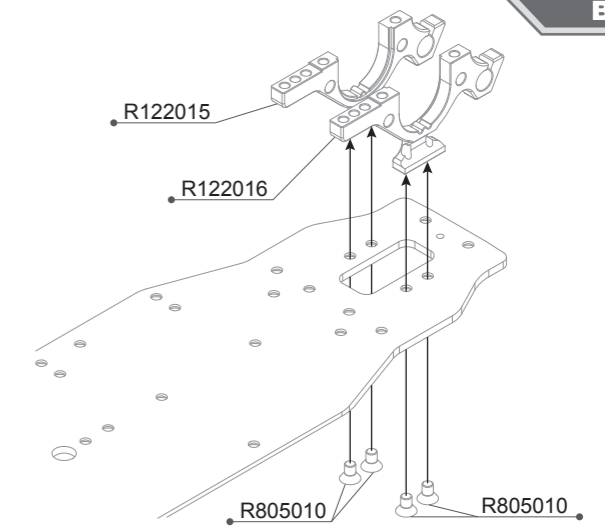
**BAG 01**

**R805010**  
3x5mm Flat Screw (10)

1:1 Scale

**NOTICE**  
The rear bulkhead direction (REAR VIEW).  
後側板組裝方向(正後方視角)。

**R122016** **R122015**  
Cut face outside  
缺角處向外



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

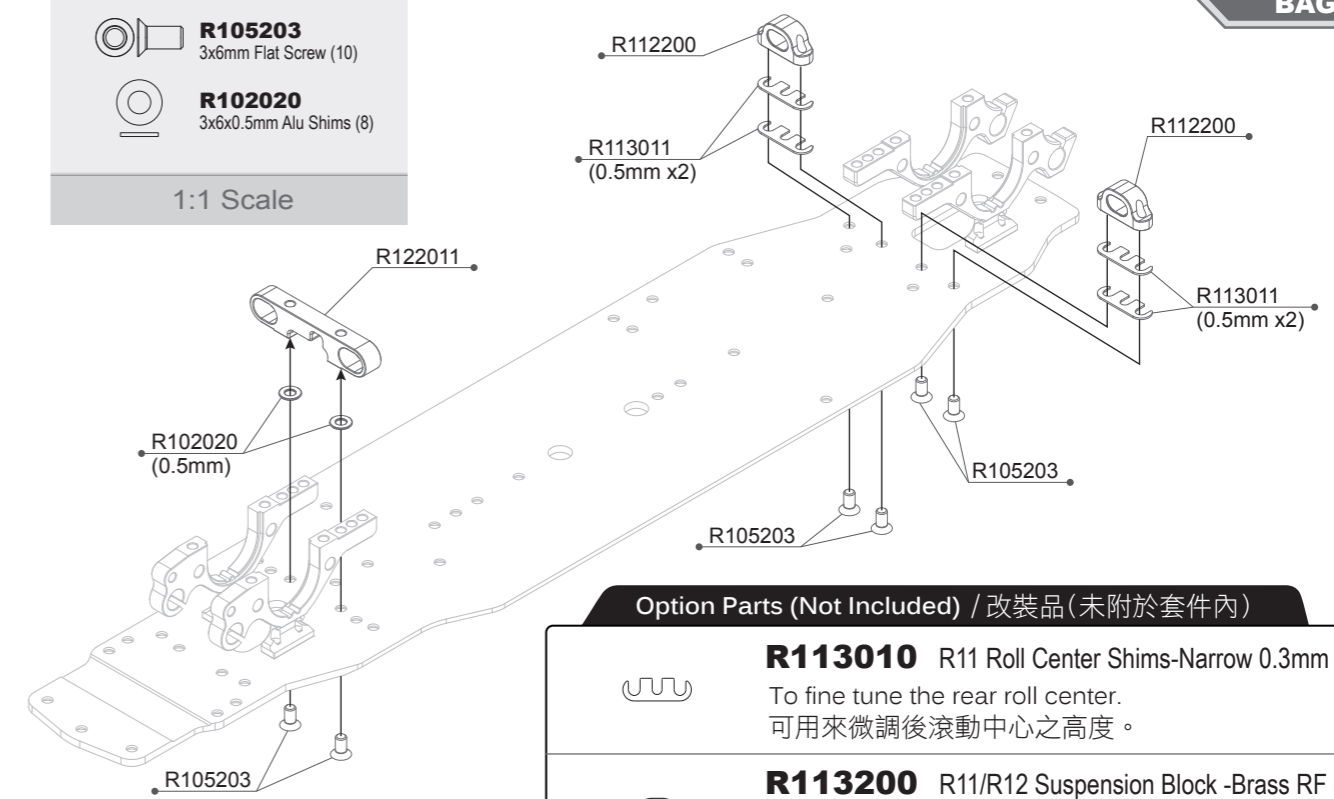
R805010 3x5mm Flat Screw (10)

**BAG 01**

**R105203**  
3x6mm Flat Screw (10)

**R102020**  
3x6x0.5mm Alu Shims (8)

1:1 Scale



**Option Parts (Not Included) / 改裝品 (未附於套件內)**

**R113010** R11 Roll Center Shims-Narrow 0.3mm (4)  
To fine tune the rear roll center.  
可用來微調後滾動中心之高度。

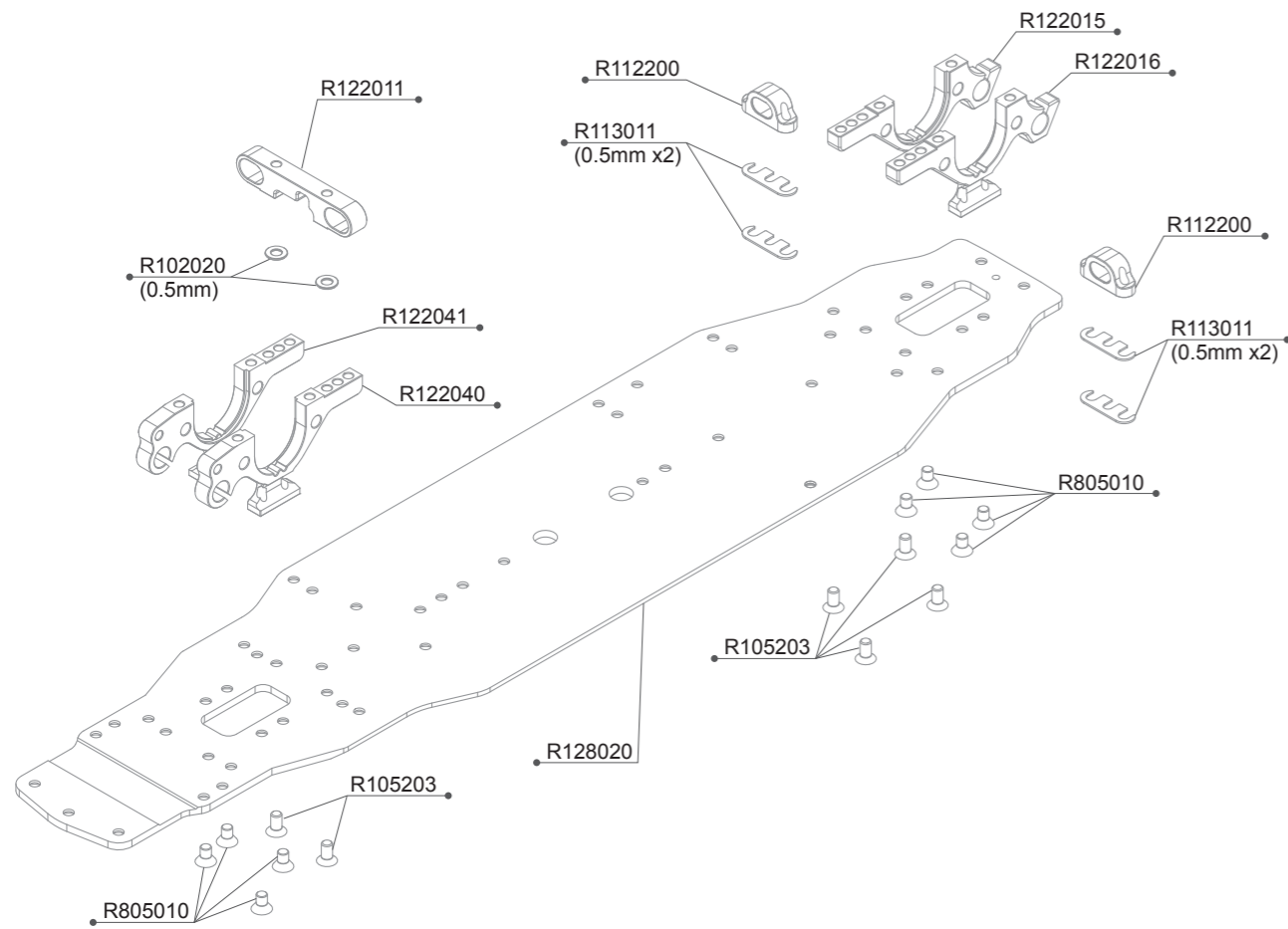
**R113200** R11/R12 Suspension Block -Brass RF (5.7g)  
To increase weight in RF block by 4g.  
可於車身後前方的位置增加4公克的重量。

**R123012** R12 Suspension Block -Brass FR(9.5g)  
To increase weight in FR block by 6.5g.  
可於車身前後方的位置增加6.5公克的重量。

R102020 3x6x0.5mm Alu Shims(8pcs)  
R105203 3x6mm Flat Screw (10)  
R112200 R11 Suspension Block RF (2)

R113011 R11 Roll Center Shims-Narrow 0.5mm (4)  
R122011 R12 Suspension Block-FR

## R12FF BAG 01 PARTS EXPLODED VIEW



### R12FF BAG 01 PARTS LIST

R102020	3x6x0.5mm Alu Shims(8pcs)	R122016	R12 Bulkhead-FR/RL
R105203	3x6mm Flat Screw (10)	R122040	R12FF Front-Left Bulkhead
R112200	R11 Suspension Block RF (2)	R122041	R12FF Front-Right Bulkhead
R113011	R11 Roll Center Shims-Narrow 0.5mm (4)	R128020	R12FF Carbon Chassis 2.25mm
R122011	R12 Suspension Block-FR	R805010	3x5mm Flat Screw (10)
R122015	R12 Bulkhead-FL/RR		

1:1 SCALE

R105203  
3x6mm Flat Screw (10)

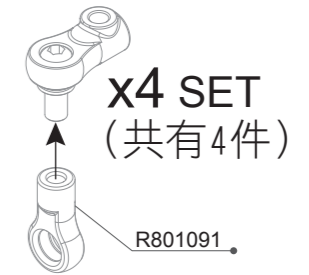
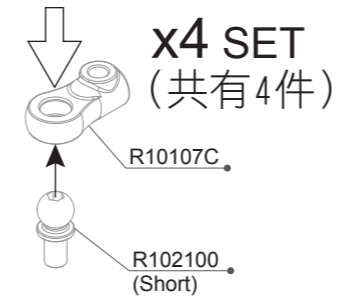
R102020  
3x6x0.5mm Alu Shims (8)

R805010  
3x5mm Flat Screw (10)

R105403  
3x8mm Set Screw (10)

R805052  
4x8mm Set Screw (10)

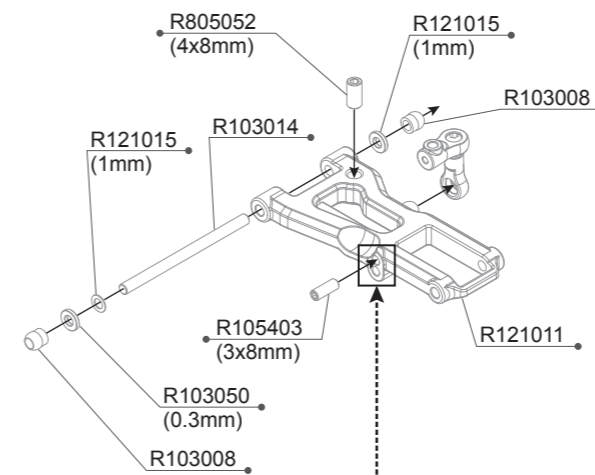
1:1 Scale



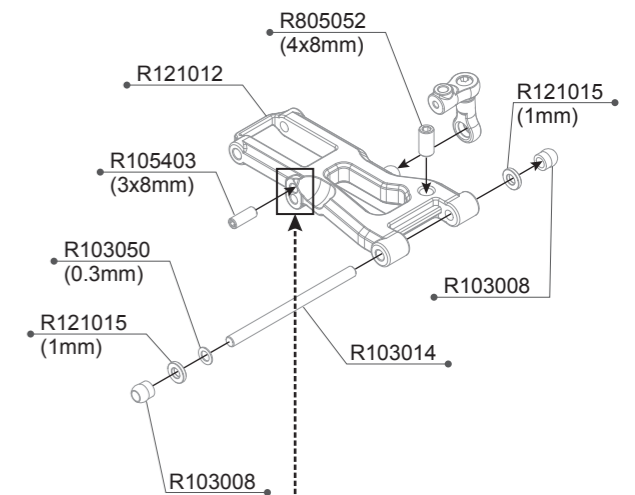
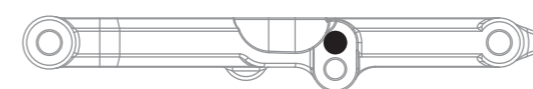
FRONT

Left Side (左邊)

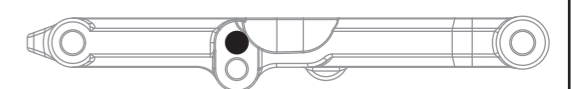
Right Side (右邊)



DEFAULT SETUP / 左前下擺臂預設孔位



DEFAULT SETUP / 右前下擺臂預設孔位



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

R121011	R12 Low Arm-FL
R121012	R12 Low Arm-FR
R121015	R12 Plastic Shims (1/2/3mm)
R801091	Ball End 4.9mm Short (2)
R805052	4x8mm Set Screw (10)

**R105403**  
3x8mm Set Screw (10)

**R805052**  
4x8mm Set Screw (10)

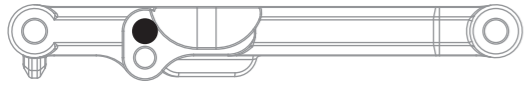
1:1 Scale

### REAR

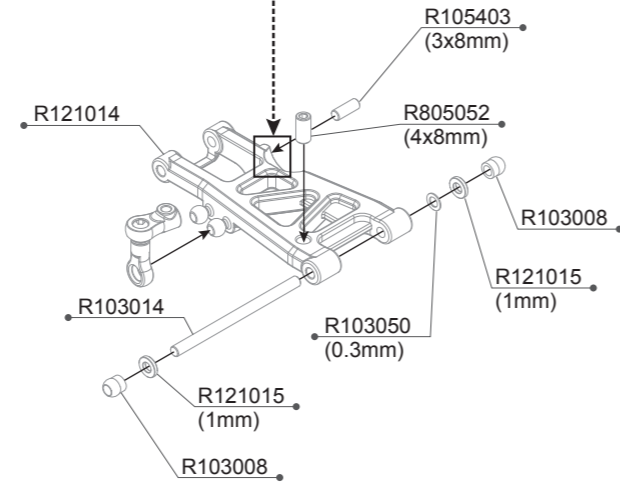
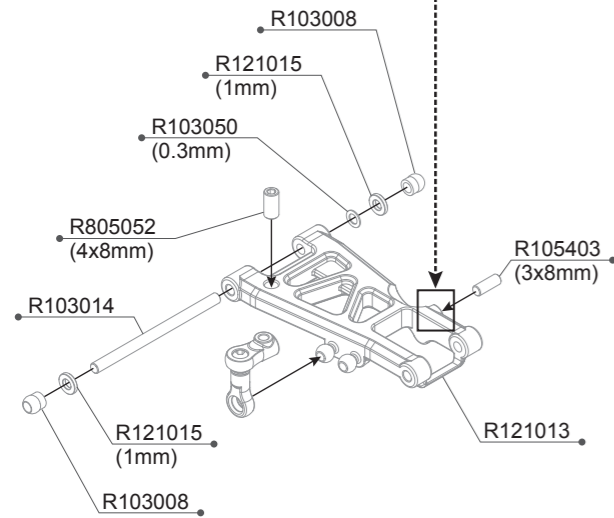
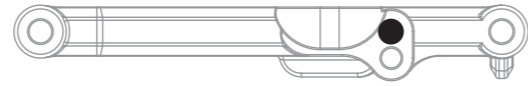
Left Side (左邊)

Right Side (右邊)

DEFAULT SETUP / 左後下擺臂預設孔位



DEFAULT SETUP / 右後下擺臂預設孔位

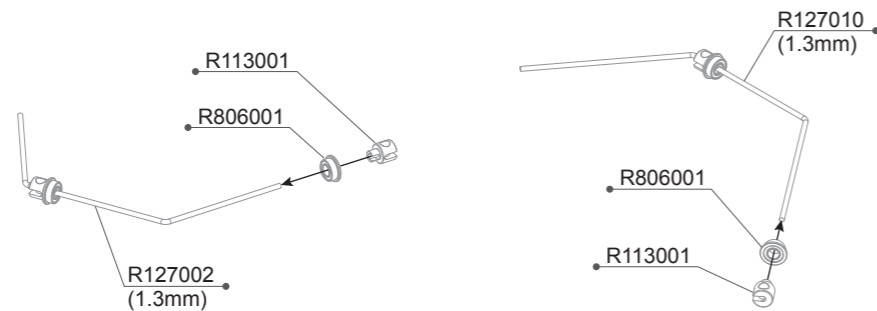


R103008 Ball 5mm(4pcs)  
R103014 Pivot Pin Inner(2pcs)  
R103050 3x5x0.3mm Shims (10)  
R105403 3x8mm Set Screw (10)

R121013 R12 Low Arm-RL  
R121014 R12 Low Arm-RR  
R121015 R12 Plastic Shims (1/2/3mm)  
R805052 4x8mm Set Screw (10)

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

1:1 Scale



R113001 Anti-Roll Bar Holder (2)  
R127002 R12 Front Anti-Roll Bar 1.3mm

R127010 R12 Rear Anti-Roll Bar 1.3mm  
R806001 3x6x2.5 Flange Ball Bearing (2)

**R105203**  
3x6mm Flat Screw (10)

**R105401**  
3x3mm Set Screw (10)

1:1 Scale

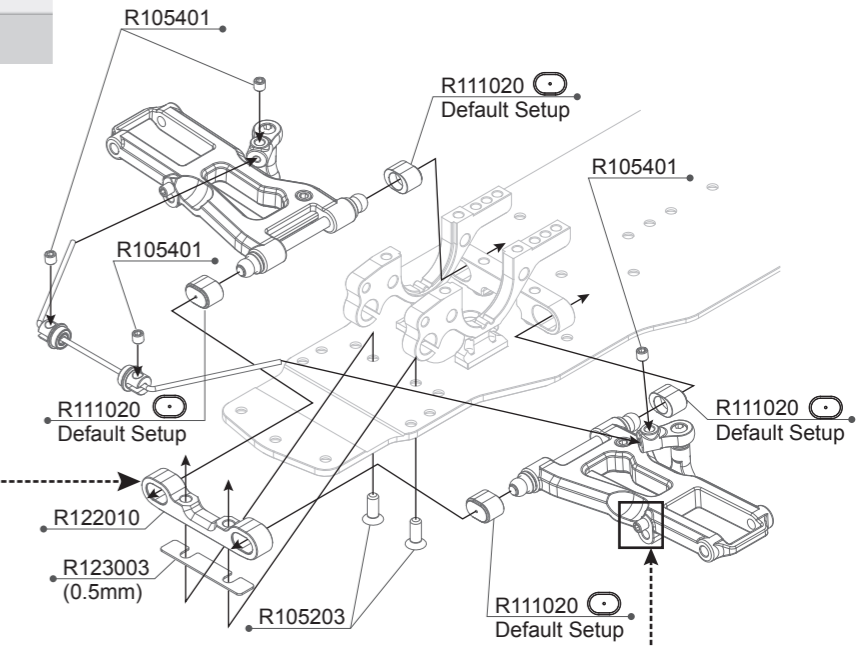
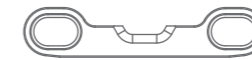
Option Parts (Not Included)  
/ 改裝品 (未附於套件內)

**R123011**  
R12 Suspension Block -Brass FF(8.5g) / 銅製  
To increase weight by 5.5g.  
可增加5.5公克的重量。

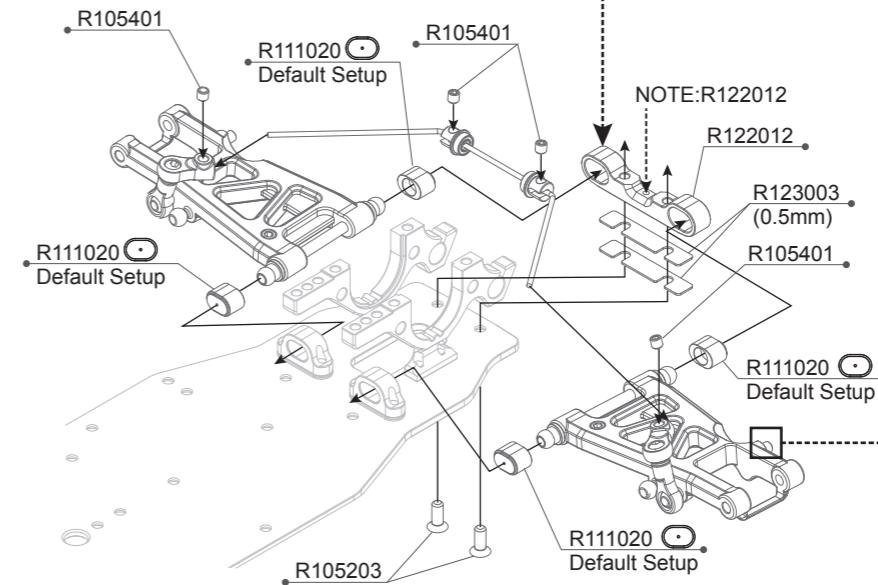
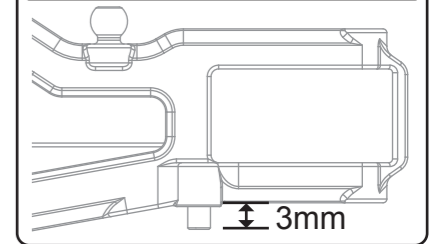


Option Parts (Not Included)  
/ 改裝品 (未附於套件內)

**R123013**  
R12 Suspension Block -Brass RR(8.5g) / 銅製  
To increase weight by 5.5g.  
可增加5.5公克的重量。

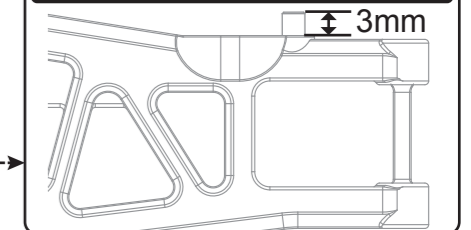


### NOTICE



NOTE:R122012

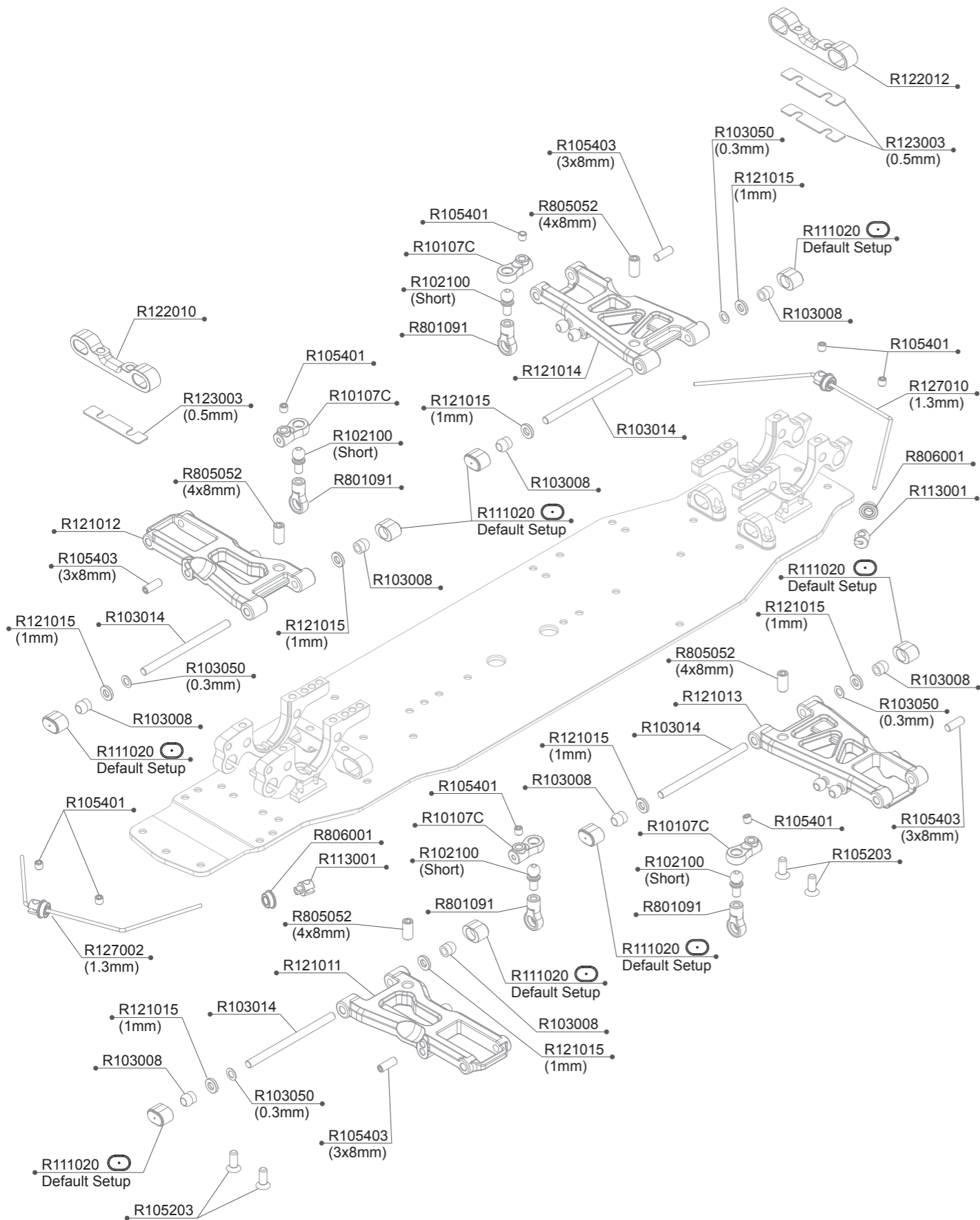
### NOTICE



R105203 3x6mm Flat Screw (10)  
R105401 3x3mm Set Screw (10)  
R111020 Suspension Insert #0~#2

R122010 R12 Suspension Block-FF  
R122012 R12 Suspension Block-RR  
R123003 R12 Roll Center Shims 0.5mm (4)






## R12FF BAG 02 PARTS EXPLODED VIEW



## R12FF BAG 02 PARTS LIST

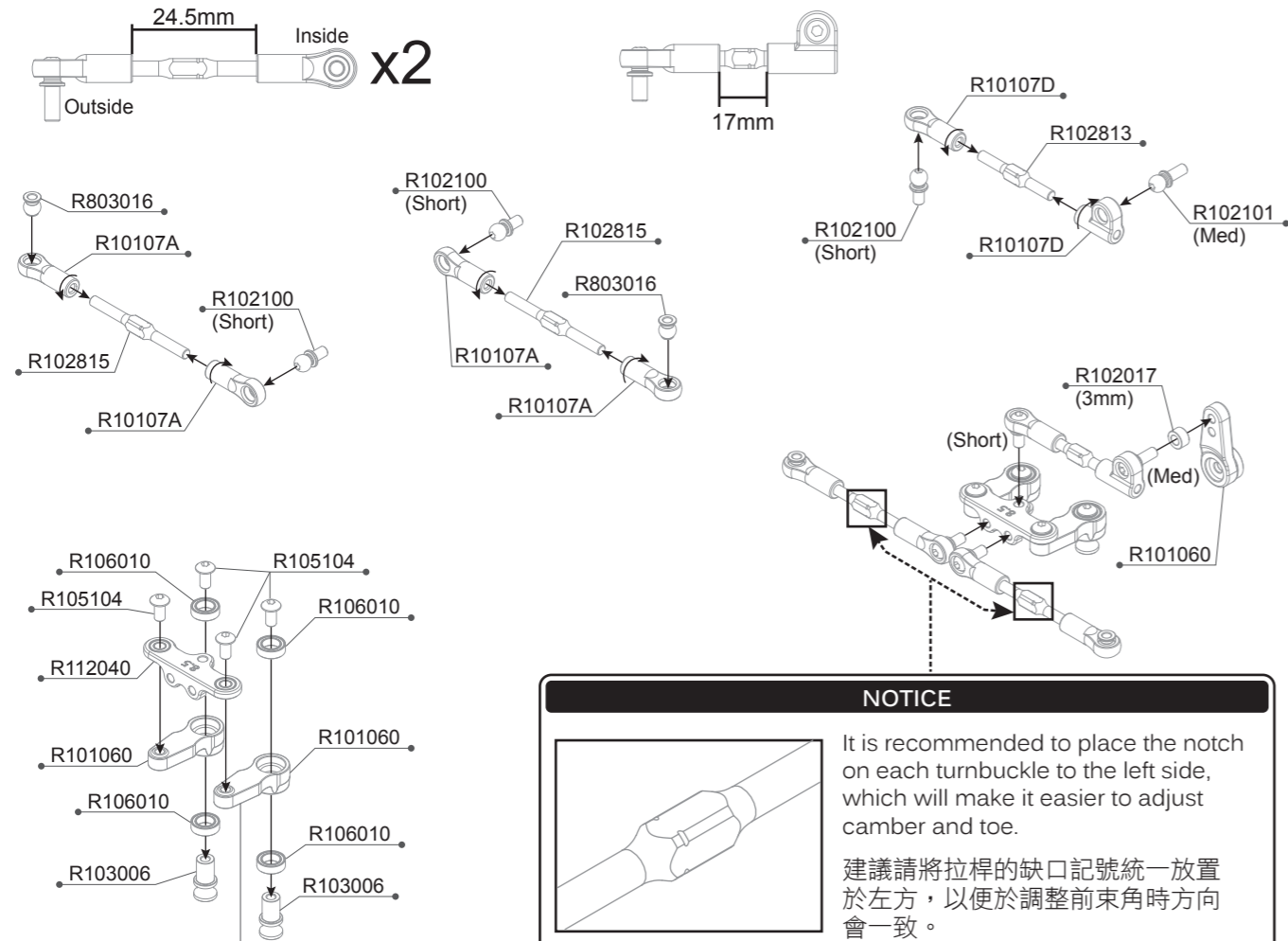
R10107C	Anti-Roll Bar Joint (4pcs)	R121013	R12 Low Arm-RL
R102100	Alu 4.9mm Ball End Short(4pcs)	R121014	R12 Low Arm-RR
R103008	Ball 5mm(4pcs)	R121015	R12 Plastic Shims (1/2/3mm)
R103014	Pivot Pin Inner(2pcs)	R122010	R12 Suspension Block-FF
R103050	3x5x0.3mm Shims (10)	R122012	R12 Suspension Block-RR
R105203	3x6mm Flat Screw (10)	R123003	R12 Roll Center Shims 0.5mm (4)
R105401	3x3mm Set Screw (10)	R127002	R12 Front Anti-Roll Bar 1.3mm
R105403	3x8mm Set Screw (10)	R127010	R12 Rear Anti-Roll Bar 1.3mm
R111020	Suspension Insert #0-#+2	R801091	Ball End 4.9mm Short (2)
R113001	Anti-Roll Bar Holder (2)	R805052	4x8mm Set Screw (10)
R121011	R12 Low Arm-FL	R806001	3x6x2.5 Flange Ball Bearing (2)
R121012	R12 Low Arm-FR		

### 1:1 SCALE

	R105401 3x3mm Set Screw (10)		R105203 3x6mm Flat Screw (10)
	R105403 3x8mm Set Screw (10)		R806001 3x6x2.5mm Flange Ball Bearing (2)
	R805052 4x8mm Set Screw (10)		

- R105104** 3x6mm Round Screw (10)
- R102017** 3x5.5x3mm Alu Shims (4)
- R106010** 5x8x2.5mm Ball Bearing (4)

1:1 Scale

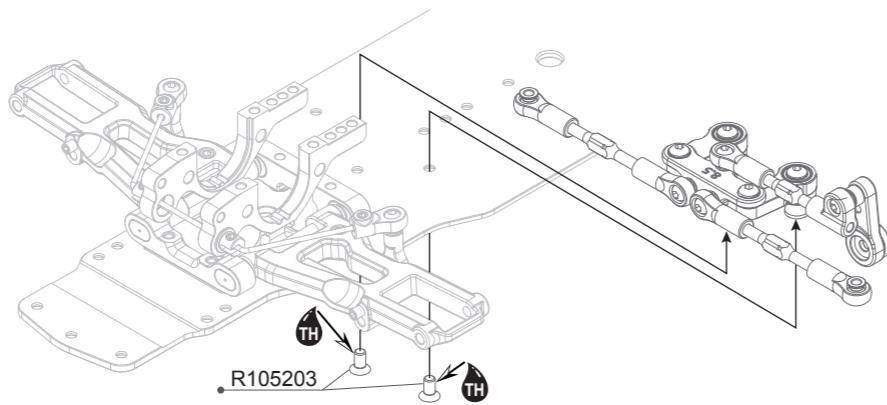


**Option Parts (Not Included)**  
/ 改裝品(未附於套件內)

**R112044**

18mm Alu Bell Crank-Black (2)

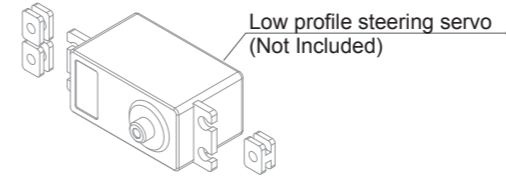
Can provide more precise handling.  
鋁合金雙搖臂可使轉向更精確。



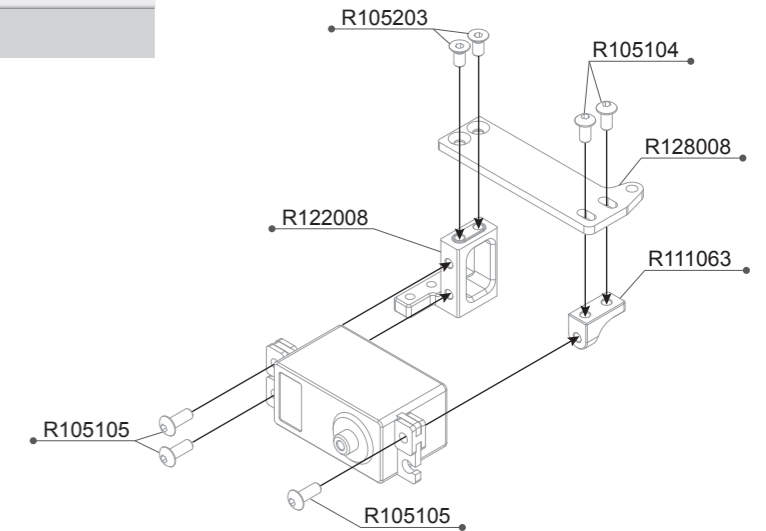
- |         |                                   |         |                                   |
|---------|-----------------------------------|---------|-----------------------------------|
| R101060 | Servo Horn Dual steering arm      | R102815 | Turnbuckle 3x37mm ALU-7075 (2pcs) |
| R10107A | Ball Joint 4.9mm Open (6pcs)      | R103006 | Steering Shaft(2pcs)              |
| R10107D | Steering Rod Ball joint           | R105104 | 3x6 Round Screw (10)              |
| R102017 | 3X5.5X3mm Alu Shims(4pcs)         | R105203 | 3x6mm Flat Screw (10)             |
| R102100 | Alu 4.9mm Ball End Short(4pcs)    | R106010 | 5x8x2.5mm Ball Bearing (4pcs)     |
| R102101 | Alu 4.9mm Ball End Med(4pcs)      | R112040 | Steering Plate 8.5                |
| R102813 | Turnbuckle 3x28mm ALU-7075 (2pcs) | R803016 | Ball Head 4.9mm (4)               |

- 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.  
建議安裝時使用伺服機防震膠套。



**Option Parts (Not Included) / 改裝品(未附於套件內)**

**R129007**

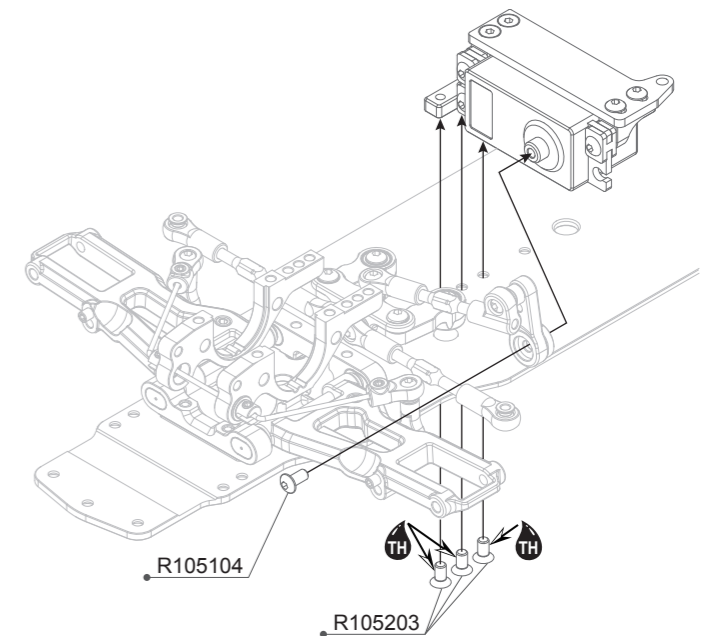
R12 SRS Super Response Servo

When using R129007 the steering rod length must change to 10mm

建議可選用R129007 R12專用高速伺服機，並將轉向連桿中間的長度修改成10mm。



**NOTICE**  
Apply thread locking compound here.  
建議在安裝轉向伺服機時底部螺絲使用防鬆膠。



- |         |                       |         |                       |
|---------|-----------------------|---------|-----------------------|
| 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 |

## Option Parts (Not Included) / 改裝品 (未附於套件內) R129010 R12FF Flex Adjust Plate Set-Short Lipo

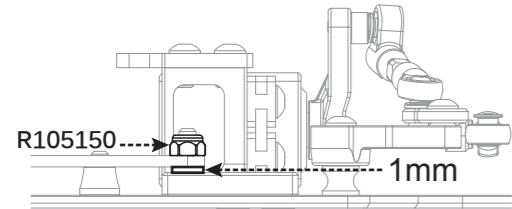
### R129010 R12FF Flex Adjust Plate Set-Short Lipo / R128031 R12FF 底盤扭腰板-短版鋰電用

The Flex Adjust Plate is used to adjust the flexibility of chassis while using the short Lipo battery, more screws fixed will make less flex, and increase stability overall.

R12FF 底盤扭腰板是用來調整底盤的硬度，當使用短版鋰電時需選用這個版本，當越多的螺絲固定時底盤會變的更硬，通常越硬的底盤會增加車架整體的穩定度。

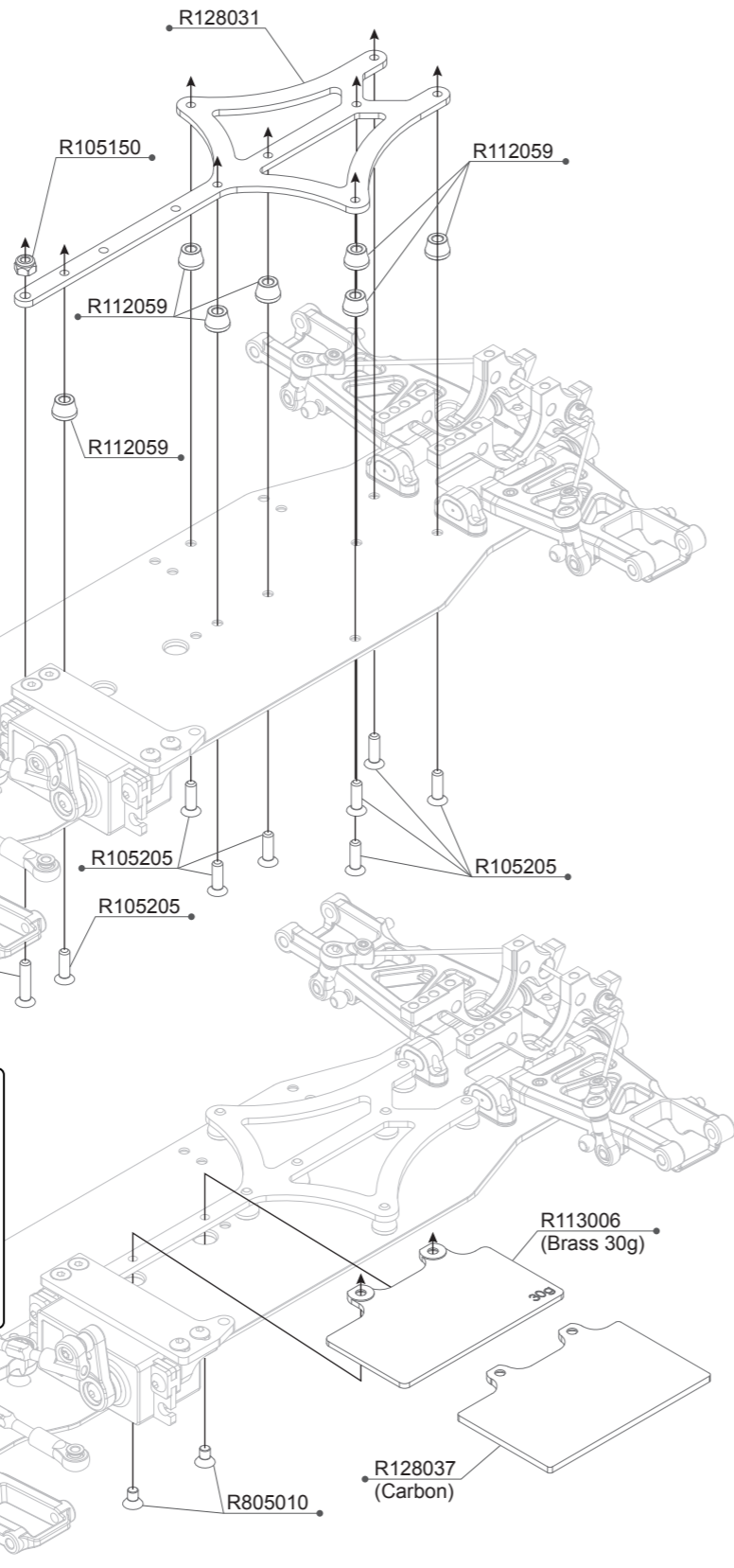
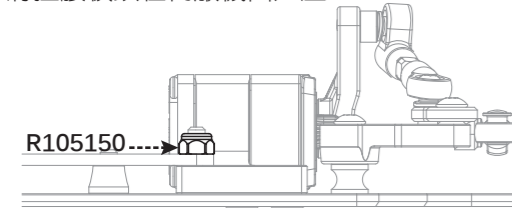
#### NOTICE

When using Standard Servo please add 1mm shim between flex plate and servo mount.  
當使用標準伺服機時請於此處加上1mm墊片。



When using R129007 please fix the flex plate directly on servo mount.

當使用R129007 R12專用伺服機時，請直接將扭腰板鎖在伺服機固定座上。



#### Option Parts (Not Included) / 改裝品 (未附於套件內)

### R113006 Floating Receiver/ESC MounBrass

### R128037 R12FF Floating Receiver Plate-Carbon

When using Floating Receiver plate the receiver is able to put on the floating plate, it will help chassis flex more evenly.

當使用浮動接收機固定板可以將接收機固定於板上，可幫助底盤的扭動更平均。

## Option Parts (Not Included) / 改裝品 (未附於套件內) R129011 R12FF Flex Adjust Plate Set-STD Lipo

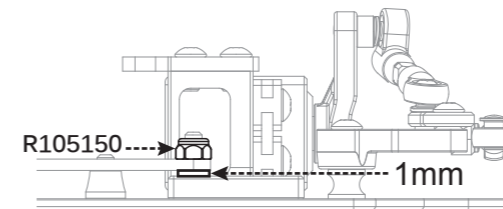
### R129011 R12FF Flex Adjust Plate Set-STD Lipo / R128036 R12FF 底盤扭腰板-標準版鋰電用

The Flex Adjust Plate is used to adjust the flexibility of chassis while using the standard Lipo battery, more screws fixed will make less flex, and increase stability overall.

R12FF 底盤扭腰板是用來調整底盤的硬度，當使用標準鋰電時需選用這個版本，當越多的螺絲固定時底盤會變的更硬，通常越硬的底盤會增加車架整體的穩定度。

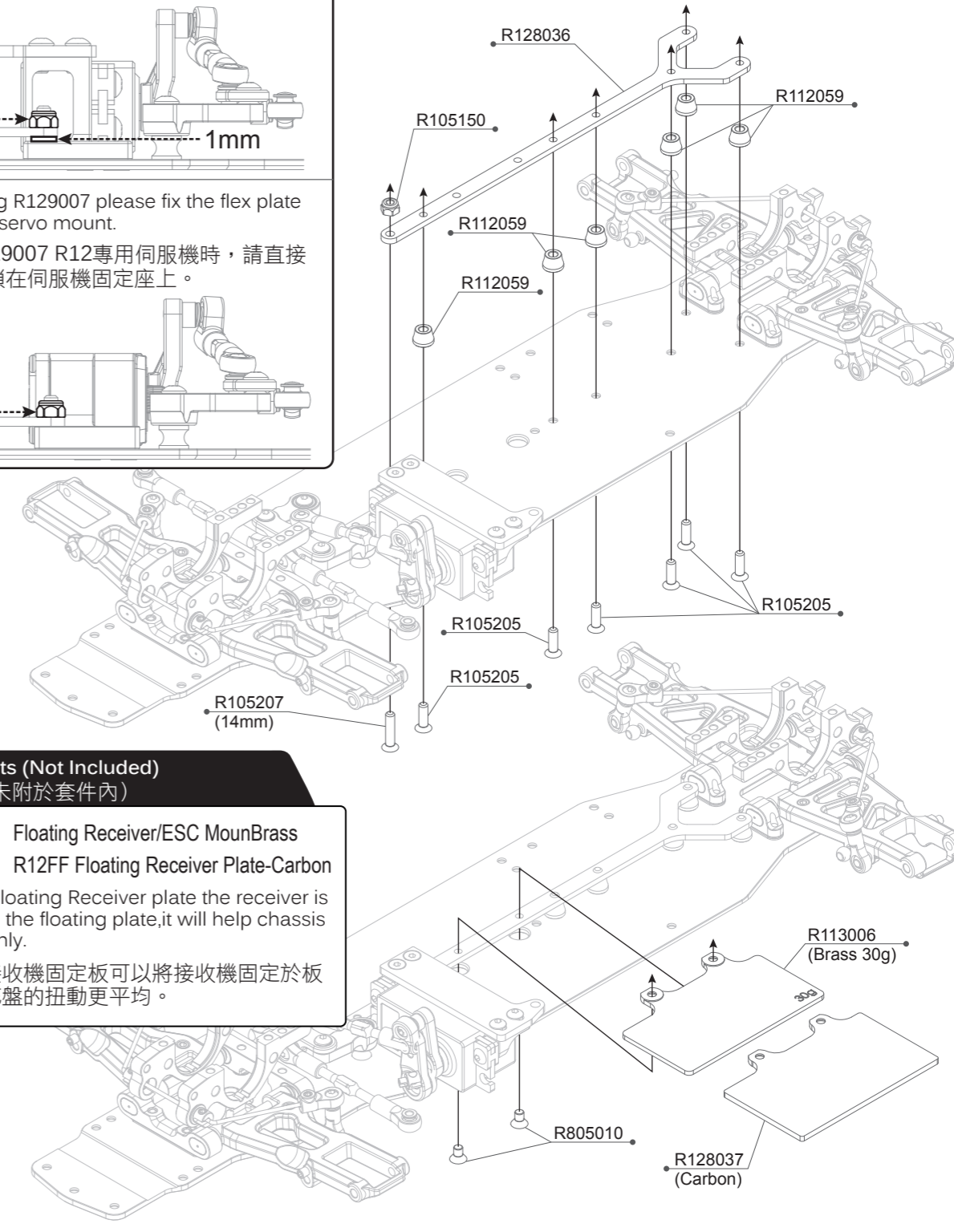
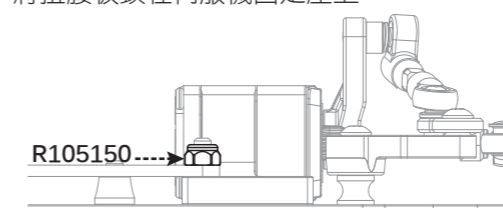
#### NOTICE

When using Standard Servo please add 1mm shim between flex plate and servo mount.  
當使用標準伺服機時請於此處加上1mm墊片。



When using R129007 please fix the flex plate directly on servo mount.

當使用R129007 R12專用伺服機時，請直接將扭腰板鎖在伺服機固定座上。



#### Option Parts (Not Included) / 改裝品 (未附於套件內)

### R113006 Floating Receiver/ESC MounBrass

### R128037 R12FF Floating Receiver Plate-Carbon

When using Floating Receiver plate the receiver is able to put on the floating plate, it will help chassis flex more evenly.

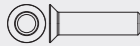
當使用浮動接收機固定板可以將接收機固定於板上，可幫助底盤的扭動更平均。



**R102015**  
3x5.5x2mm Alu Shims (8)



**R105203**  
3x6mm Flat Screw (10)

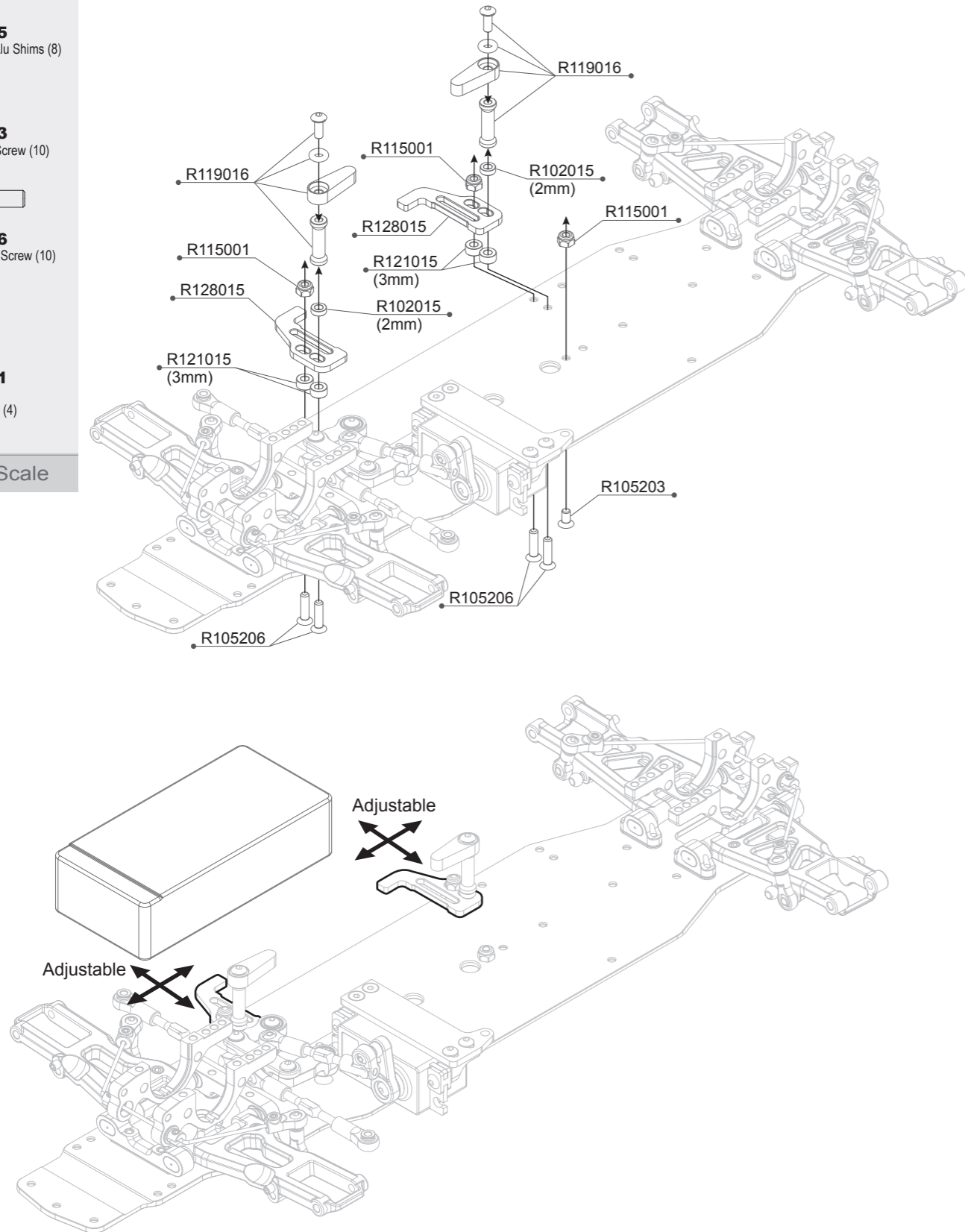


**R105206**  
3x12mm Flat Screw (10)



**R115001**  
3mm Nylon  
Nut-Black Alu (4)

1:1 Scale



R102015 3x5.5x2mm Alu Shims(8pcs)  
R105203 3x6mm Flat Screw (10)  
R105206 3x12mm Flat Screw (10)  
R115001 3mm Nylon Nut-Black Alu (4)

R119016 R11 Battery Holder  
R121015 R12 Plastic Shims (1/2/3mm)  
R128015 Slim Lipo Battery Holder (2)



**R105203**  
3x6mm Flat Screw (10)

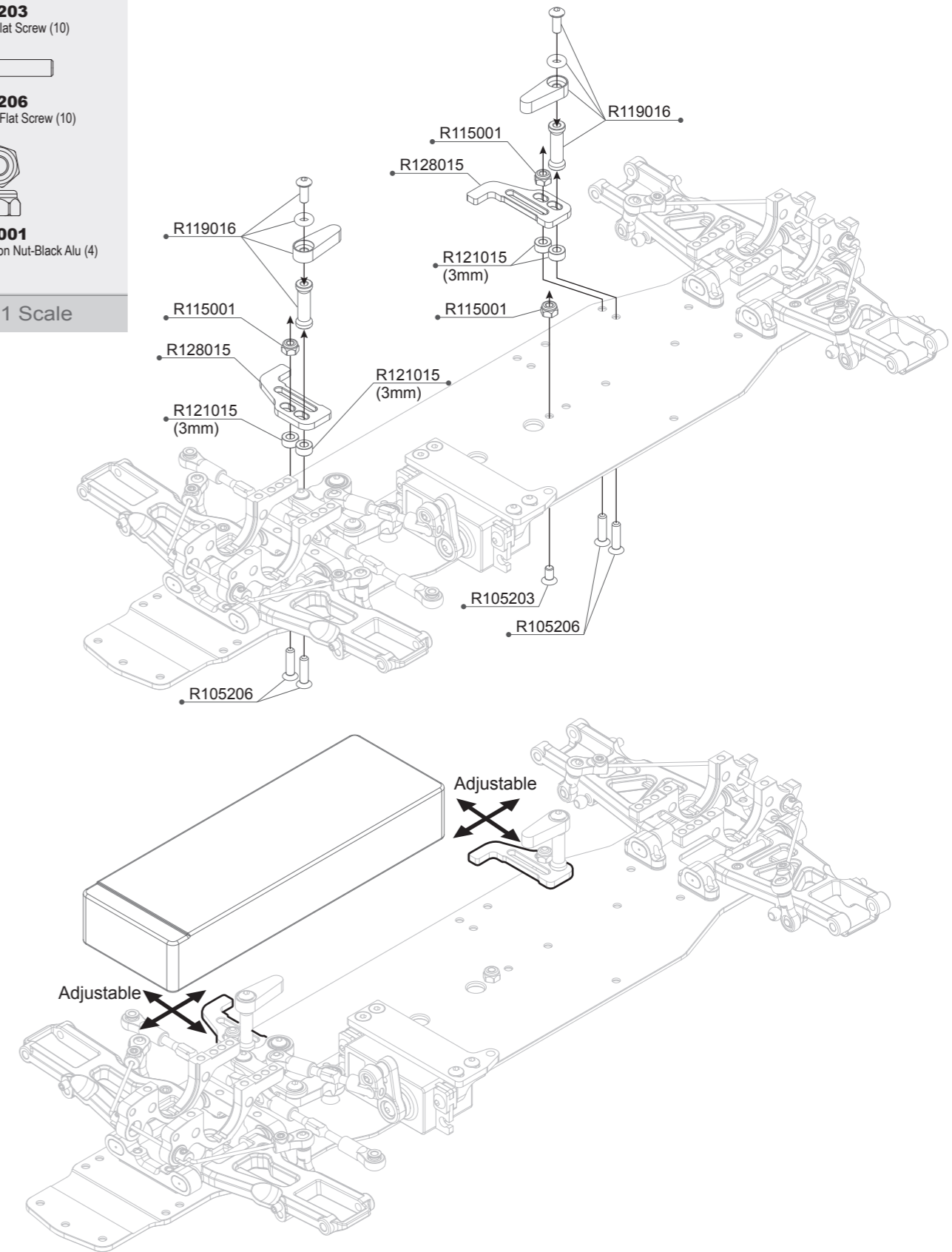


**R105206**  
3x12mm Flat Screw (10)



**R115001**  
3mm Nylon Nut-Black Alu (4)

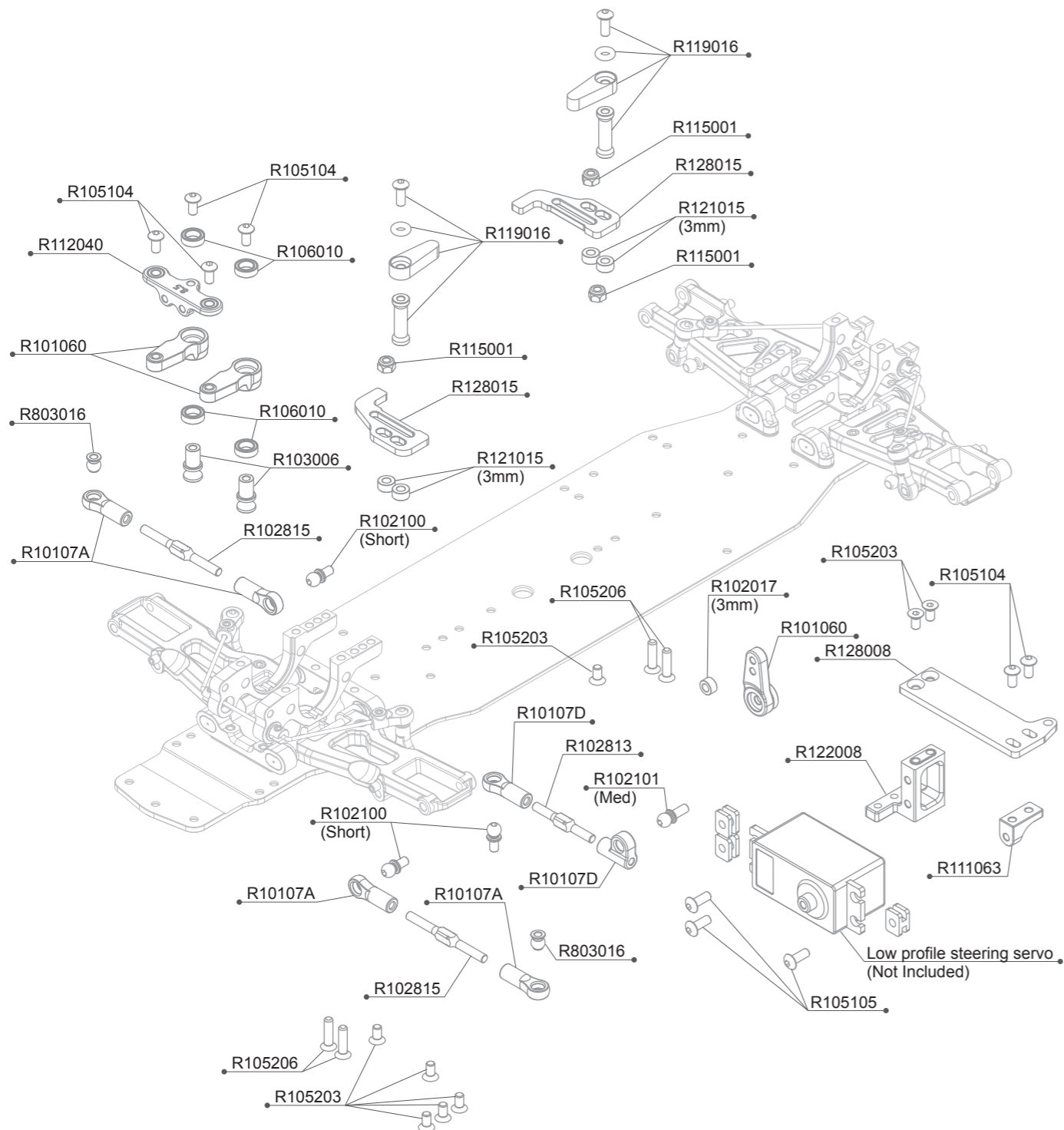
1:1 Scale



R105203 3x6mm Flat Screw (10)  
R105206 3x12mm Flat Screw (10)  
R115001 3mm Nylon Nut-Black Alu (4)

R119016 R11 Battery Holder  
R121015 R12 Plastic Shims (1/2/3mm)  
R128015 Slim Lipo Battery Holder (2)




## R12FF BAG 03 PARTS EXPLODED VIEW



## R12FF BAG 03 PARTS LIST

R101060	Servo Horn Dual steering arm	R105206	3x12mm Flat Screw (10)
R10107A	Ball Joint 4.9mm Open (6pcs)	R106010	5x8x2.5mm Ball Bearing (4pcs)
R10107D	Steering Rod Ball joint	R111063	R11 Servo Mount-Left
R102017	3X5.5X3mm Alu Shims(4pcs)	R112040	Steering Plate 8.5
R102100	Alu 4.9mm Ball End Short(4pcs)	R115001	3mm Nylon Nut-Black Alu (4)
R102101	Alu 4.9mm Ball End Med(4pcs)	R119016	R11 Battery Holder
R102813	Turnbuckle 3x28mm ALU-7075 (2pcs)	R121015	R12 Plastic Shims (1/2/3mm)
R102815	Turnbuckle 3x37mm ALU-7075 (2pcs)	R122008	R12 Servo Mount-Alu
R103006	Steering Shaft(2pcs)	R128008	R12 Servo Mount Plate
R105104	3x6 Round Screw (10)	R128015	Slim Lipo Battery Holder (2)
R105105	3x8 Round Screw (10)	R803016	Ball Head 4.9mm (4)
R105203	3x6mm Flat Screw (10)		

### 1:1 SCALE

	R105104 3x6 Round Screw (10)		R102017 3x5.5x3mm Alu Shims (4)
	R105105 3x8 Round Screw (10)		R106010 5x8x2.5mm Ball Bearing (4)
	R105203 3x6mm Flat Screw (10)		R115001 3mm Nylon Nut-Black Alu (4)
	R105206 3x12mm Flat Screw (10)		

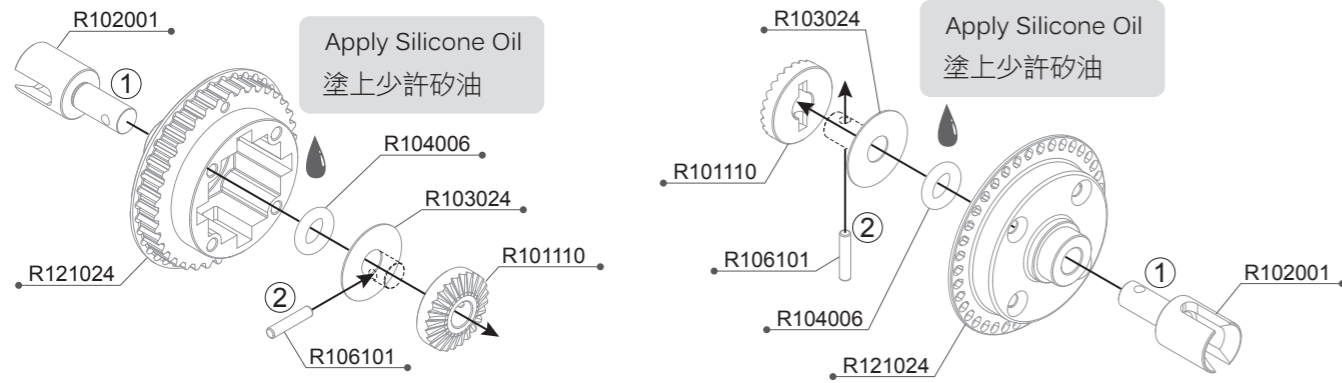
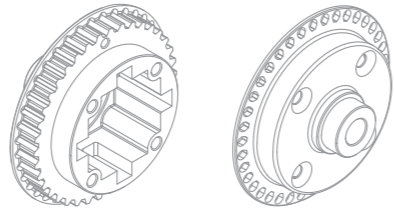


R106101  
Ø2x9.8 Pin (10)

1:1 Scale

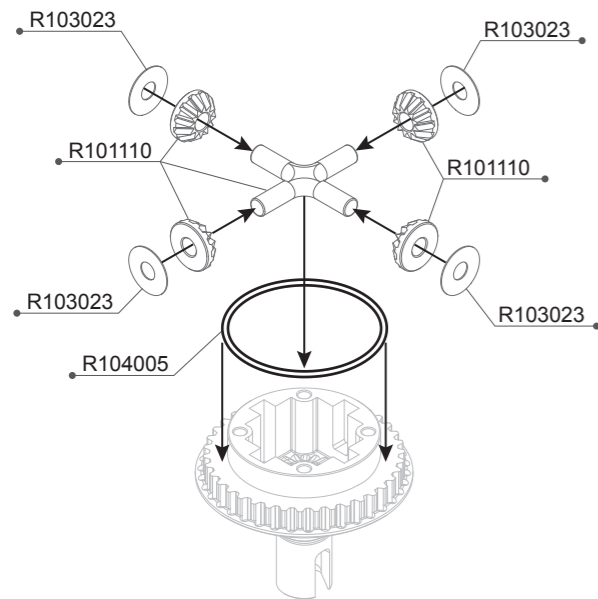
Option Parts (Not Included) / 改裝品 (未附於套件內)

**R121061**  
R12 Kevlar Diff Case

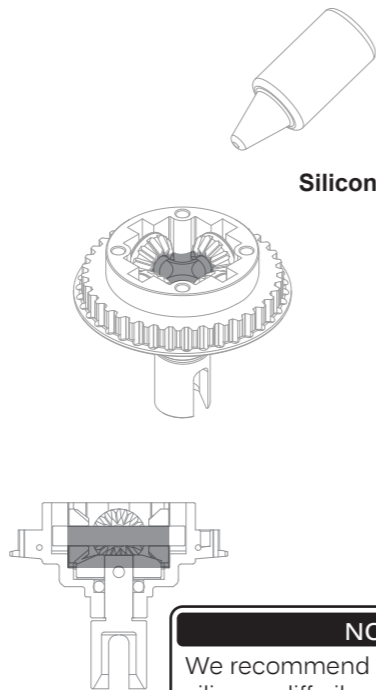


- R101110 Diff Gears (with Axle)
- R102001 Gear Diff Outdrive Alu(2pcs)
- R103024 Gear Diff Shim Big(4pcs)

- R104006 O'ring 5x2(4pcs)
- R106101 2x9.8mm Pin (10pcs)
- R121024 R12 Diff Case



Silicone Oil #60000



**NOTICE**

Trim any excess flashing from the diff gear axle at the mold injection point.  
請將十字軸邊緣多餘的合模線修順，可使差速的運做更順暢。

**NOTICE**

We recommend using 1.3 grams of silicone diff oil.  
建議加入1.3公克重規格60000CST的差速油。

- R101110 Diff Gears (with Axle)
- R103023 Gear Diff Shim Small(8pcs)

- R104005 O'Ring 26x1 For Diff Case(2pcs)

R105201  
2.5x8mm Flat Screw (10)



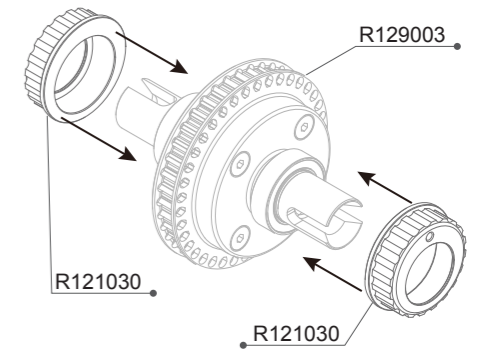
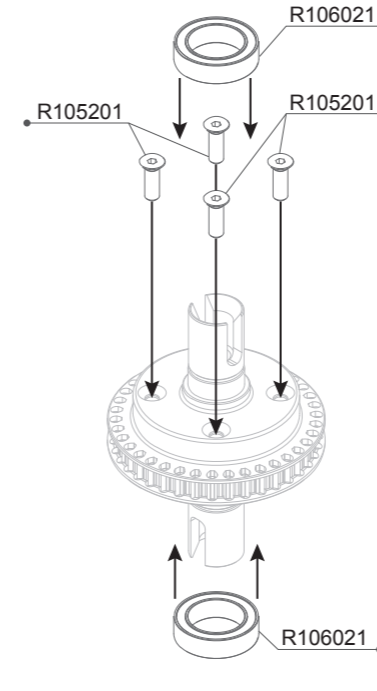
R106021  
Low Friction Ball Bearing  
10x15x4 (4)

1:1 Scale

Option Parts (Not Included) / 改裝品 (未附於套件內)

**R122017** R12 Eccentric Hub-Alu (4)

The aluminum eccentric hubs provide greater precision and finer belt tension adjustment.  
鋁合金的偏心調整環可提供準確與更細緻的張力調整。



**NOTICE**

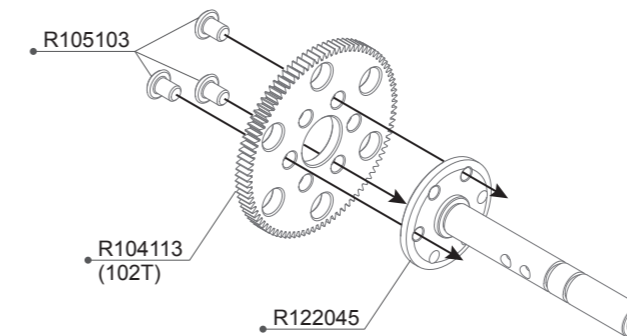
Diff case direction needs to match as per above.  
差速外殼組裝時請依圖示對齊凹點。

- R105201 2.5x8mm Flat Screw (10)
- R106021 Low Friction Ball Bearing 10x15x4 (4pcs)

- R121030 R12 Eccentric Hub (4)

R105103  
3x4 Round Screw (10)

1:1 Scale



**GEAR RATIO CHART / 建議齒比表**

FDR 2.8-3.2 / 終傳比 2.8-3.2:






Pinion	57	58	59	60	61	62
Spur						
84	X	3.06	3.00	2.95	2.91	2.86
86	3.18	3.13	3.08	3.02	2.97	X

FDR 4.0-5.0 / 終傳比 4.0-5.0:

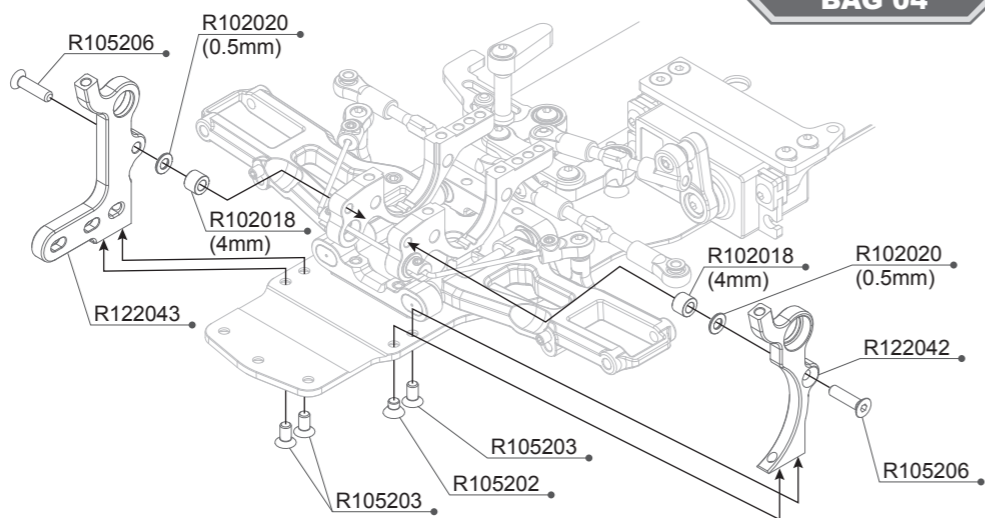
Pinion	42	43	44	45	46	47	48	49
Spur								
100	X	4.91	4.80	4.69	4.59	4.49	4.40	4.31
102	5.12	5.01	4.89	4.78	4.68	4.58	4.48	X

- R104113 CNC Spur 102T (64dp)
- R105103 3x4 Round Screw (10)

- R122045 R12FF Main Shaft

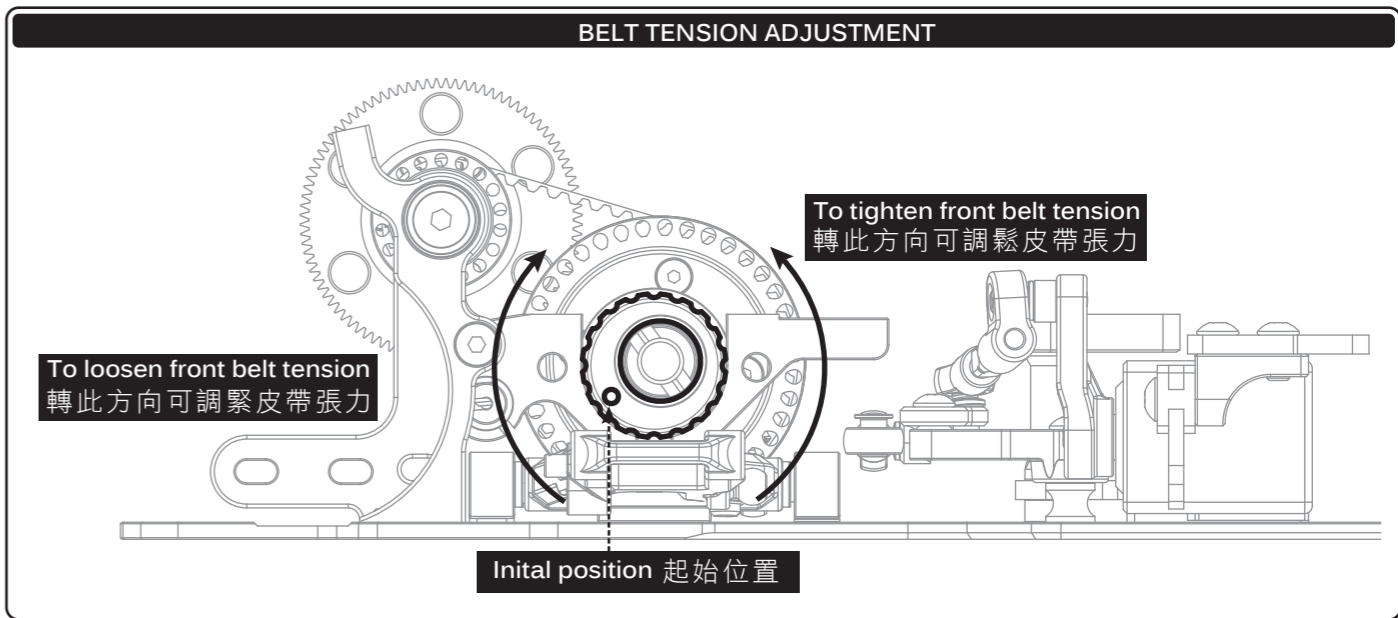
-  **R102018**  
3x5.5x4mm Alu Shims (4)
-  **R102020**  
3x6x0.5mm Alu Shims (8)
-  **R105202**  
3x4mm Flat Screw (10)
-  **R105203**  
3x6mm Flat Screw (10)
-  **R105206**  
3x12mm Flat Screw (10)



1:1 Scale







- |         |                           |         |                        |
|---------|---------------------------|---------|------------------------|
| R102018 | 3x5.5x4mm Alu Shims(4pcs) | R105206 | 3x12mm Flat Screw (10) |
| R102020 | 3x6x0.5mm Alu Shims(8pcs) | R122042 | R12FF Motor Bulkhead-R |
| R105202 | 3x4mm Flat Screw (10)     | R122043 | R12FF Motor Bulkhead-L |
| R105203 | 3x6mm Flat Screw (10)     |         |                        |

### BELT TENSION ADJUSTMENT

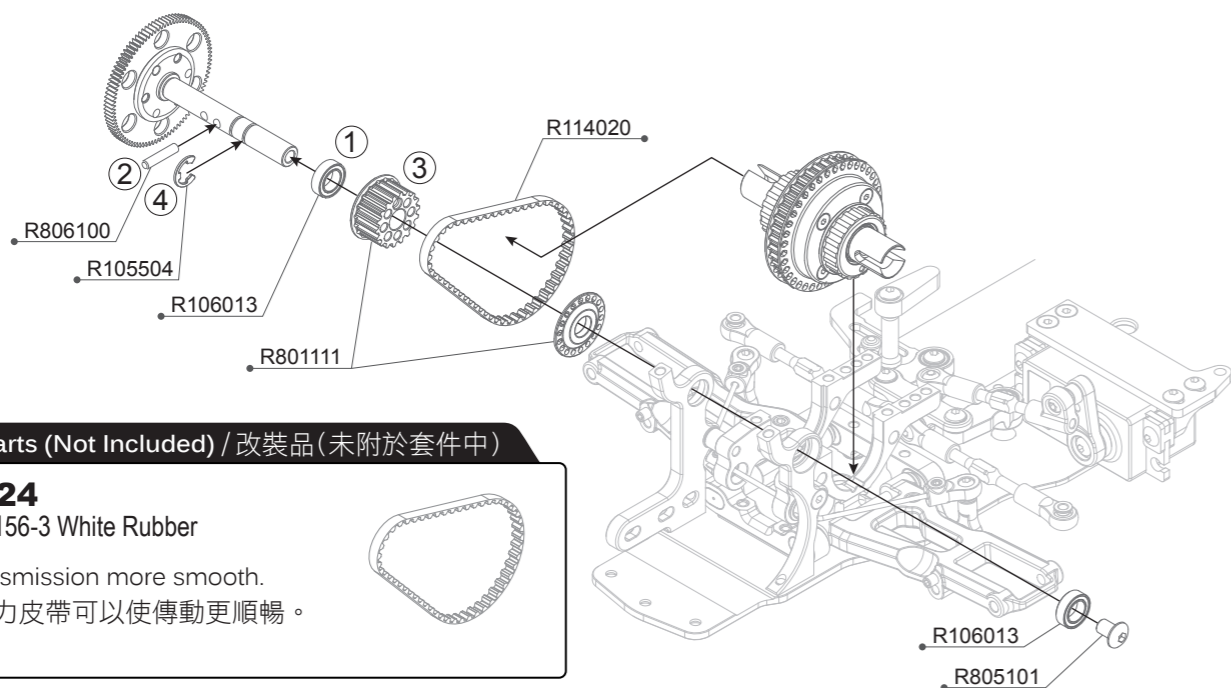


-  **R105106**  
3x10 Round Screw (10)
-  **R102015**  
3x5.5x2mm Alu Shims (8)

1:1 Scale

-  **R105504**  
E-Clip 4mm (8)
-  **R106013**  
6x10x3 Ball Bearing (2)
-  **R805101**  
4x6 Round Screw (10)
-  **R806100**  
Ø2.5x11.8 Pin (6)

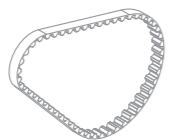
1:1 Scale



Option Parts (Not Included) / 改裝品 (未附於套件中)

**R114024**  
R11F Belt 156-3 White Rubber

Make transmission more smooth.  
白色低阻力皮帶可以使傳動更順暢。

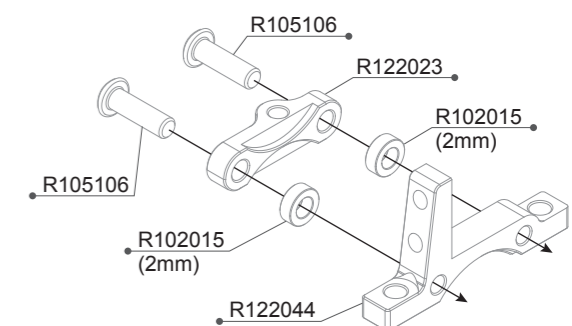
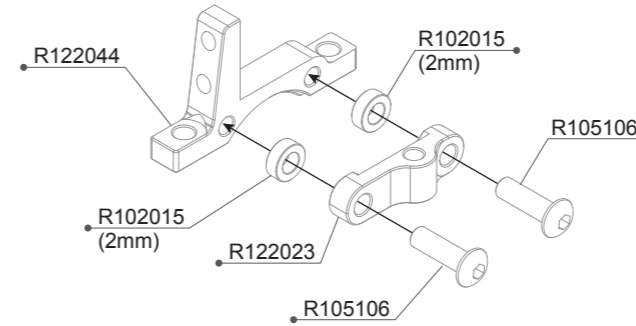


- |         |                         |         |                      |
|---------|-------------------------|---------|----------------------|
| R105504 | E-Clip 4mm (8pcs)       | R801111 | Pulley Set -Front    |
| R106013 | 6x10x3 Ball Bearing (2) | R805101 | 4x6 Round Screw (10) |
| R114020 | R11F Belt 156-3         | R806100 | Pin 2.5x11.8 (6)     |

### FRONT

Left Side (左邊)

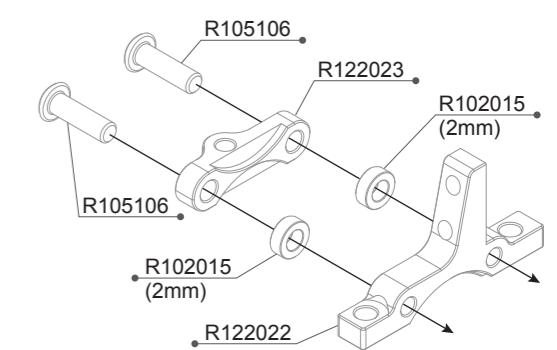
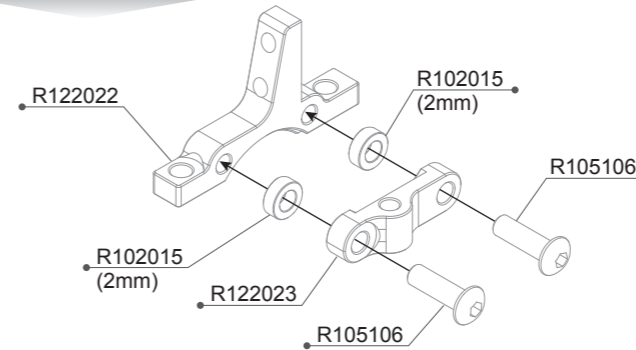
Right Side (右邊)







### REAR

Left Side (左邊)

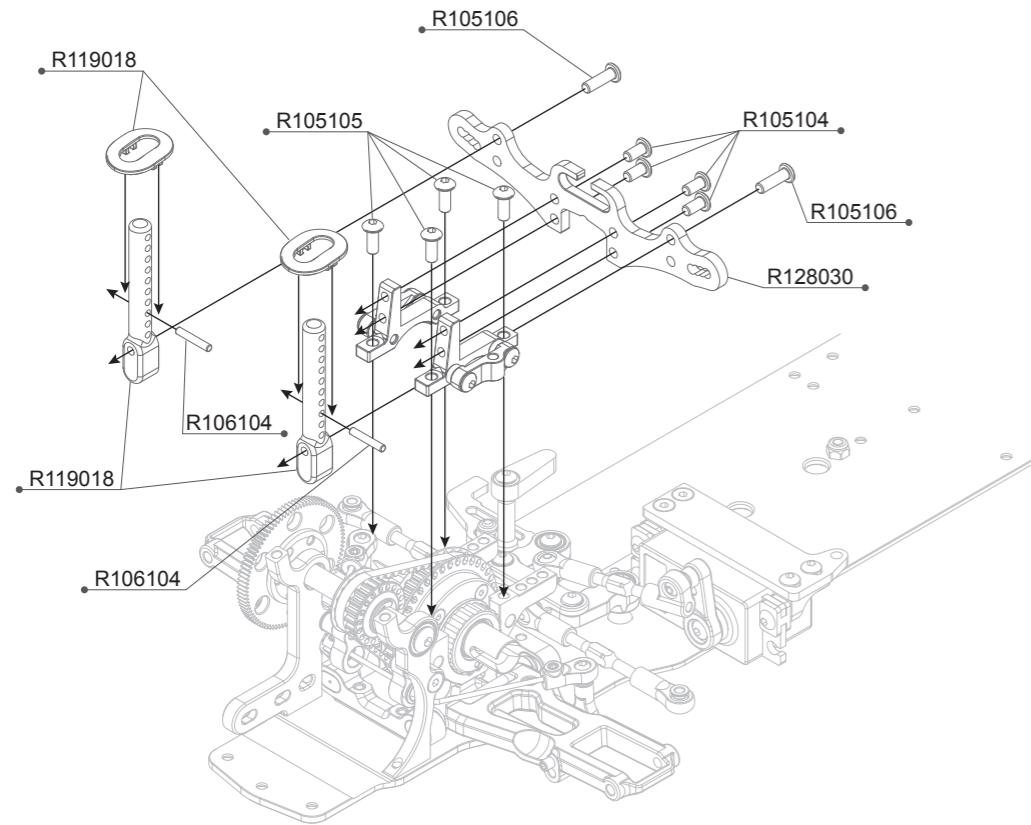
Right Side (右邊)



- |         |                           |         |                            |
|---------|---------------------------|---------|----------------------------|
| R102015 | 3x5.5x2mm Alu Shims(8pcs) | R122023 | R12 Upper Link Base        |
| R105106 | 3x10 Round Screw (10)     | R122044 | R12FF Front Upper Bulkhead |
| R122022 | R12 Upper Bulkhead        |         |                            |

-  **R105104**  
3x6 Round Screw (10)
-  **R105105**  
3x8 Round Screw (10)
-  **R105106**  
3x10 Round Screw (10)
-  **R106104**  
Ø2x11.8 Pin (10)

1:1 Scale



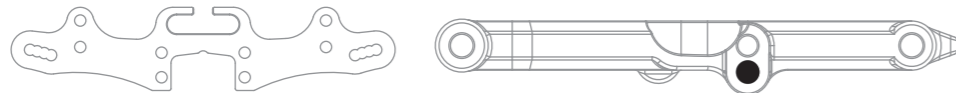
**Option Parts (Not Included) / 改裝品 (未附於套件中)**

**R128032 R12FF Front Shock Tower -3.5mm**




The R12 FF -3.5mm shock tower is designed to lower the shock height by 3.5mm, The shock mounting hole in the lower arm has to move into the lower one.

Lower shock height helps to lower the center of gravity and increase the response overall.

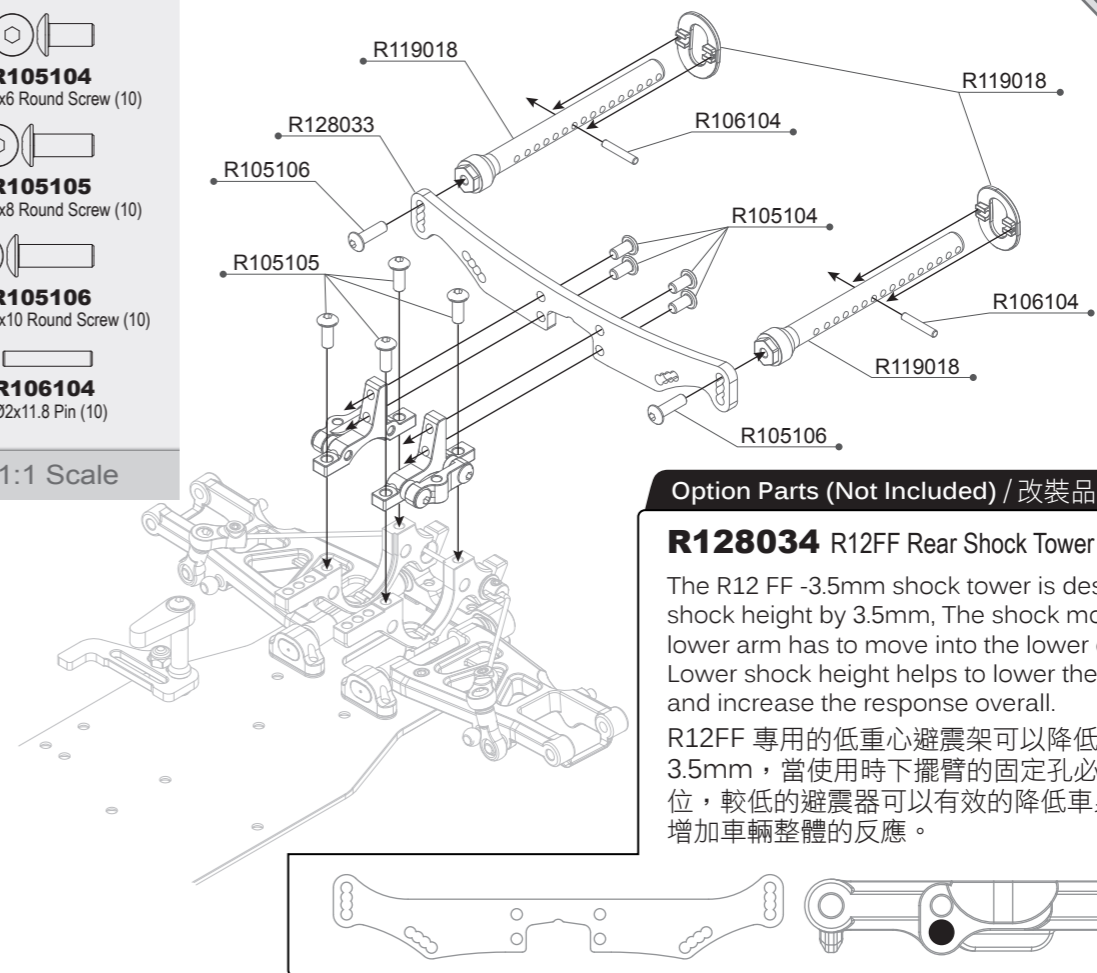
R12FF 專用的低重心避震架可以降低整支避震器高度3.5mm，當使用時下擺臂的固定孔必需使用下方的孔位，較低的避震器可以有效的降低車身整體的重心並增加車輛整體的反應。



- R105104 3x6 Round Screw (10)
- R105105 3x8 Round Screw (10)
- R105106 3x10 Round Screw (10)
- R106104 2x11.8mm Pin (10pcs)
- R119018 R11 Body Mount Set
- R128030 R12FF Front Shock Tower

-  **R105104**  
3x6 Round Screw (10)
-  **R105105**  
3x8 Round Screw (10)
-  **R105106**  
3x10 Round Screw (10)
-  **R106104**  
Ø2x11.8 Pin (10)

1:1 Scale



**Option Parts (Not Included) / 改裝品 (未附於套件中)**


**R128034 R12FF Rear Shock Tower -3.5mm**

The R12 FF -3.5mm shock tower is designed to lower the shock height by 3.5mm, The shock mounting hole in the lower arm has to move into the lower one.

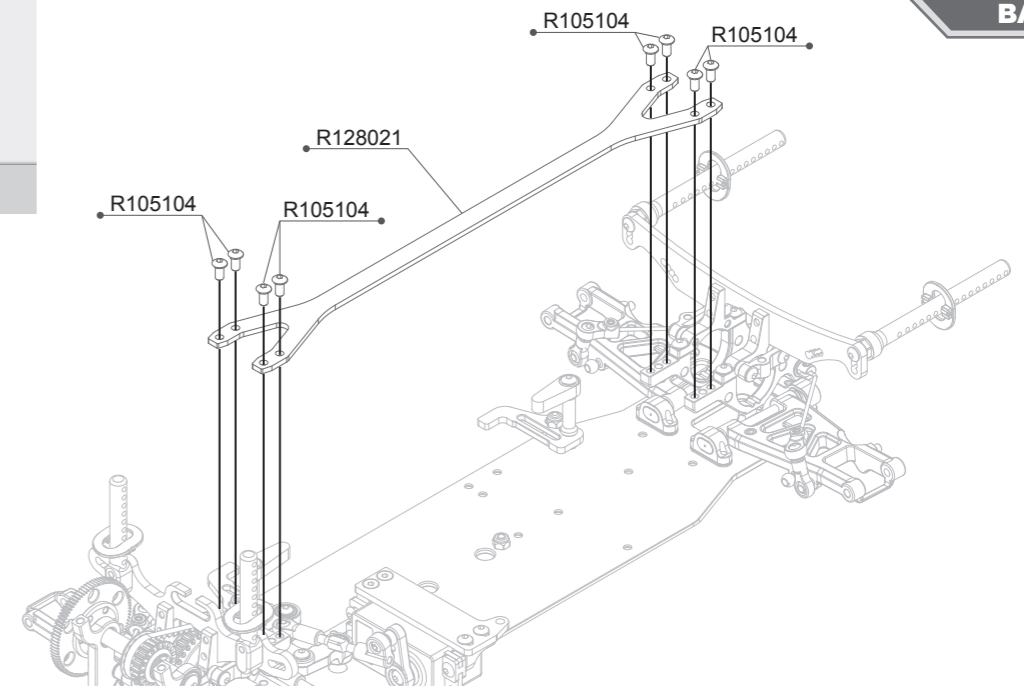
Lower shock height helps to lower the center of gravity and increase the response overall.

R12FF 專用的低重心避震架可以降低整支避震器高度3.5mm，當使用時下擺臂的固定孔必需使用下方的孔位，較低的避震器可以有效的降低車身整體的重心並增加車輛整體的反應。

- R105104 3x6 Round Screw (10)
- R105105 3x8 Round Screw (10)
- R105106 3x10 Round Screw (10)
- R106104 2x11.8mm Pin (10pcs)
- R119018 R11 Body Mount Set
- R128033 R12FF Rear Shock Tower

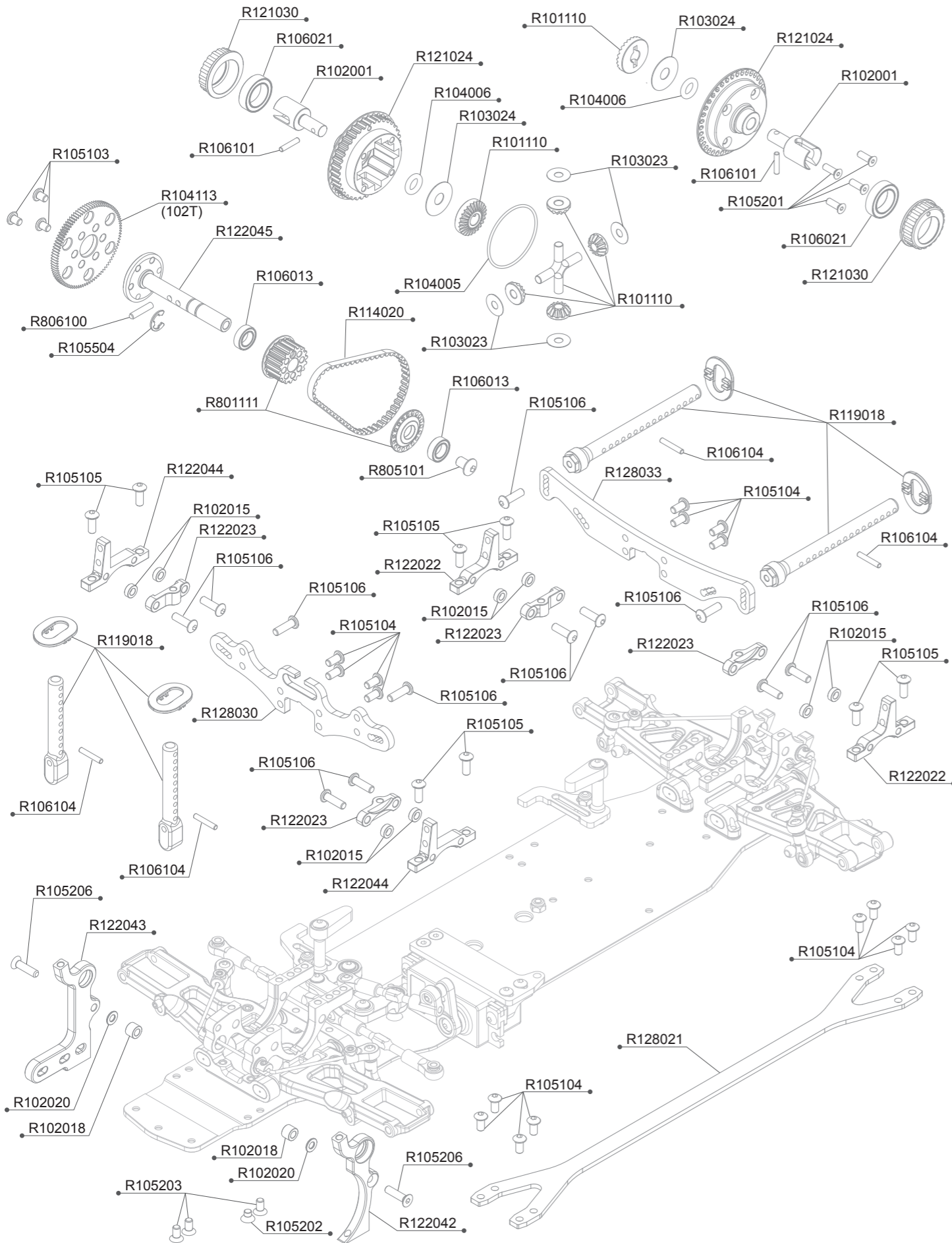
-  **R105104**  
3x6 Round Screw (10)

1:1 Scale



- R105104 3x6 Round Screw (10)
- R128021 R12FF Upper Deck 2.0mm

## R12FF BAG 04 PARTS EXPLODED VIEW








## R12FF BAG 04 PARTS LIST

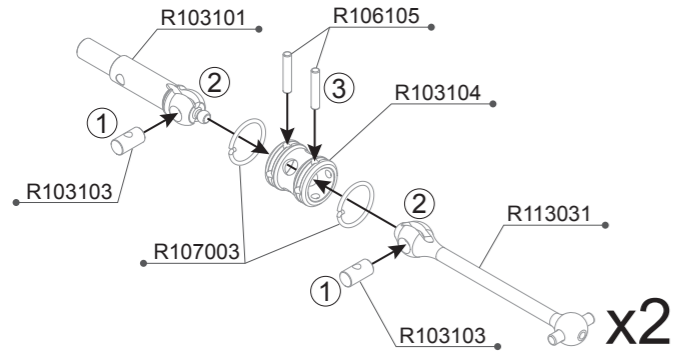
R101110	Diff Gears (with Axle)	R106021	Low Friction Ball Bearing 10x15x4 (4pcs)
R102001	Gear Diff Outdrive Alu(2pcs)	R106101	2x9.8mm Pin (10pcs)
R102015	3x5.5x2mm Alu Shims(8pcs)	R106104	2x11.8mm Pin (10pcs)
R102018	3x5.5x4mm Alu Shims(4pcs)	R114020	R11F Belt 156-3
R102020	3x6x0.5mm Alu Shims(8pcs)	R119018	R11 Body Mount Set
R103023	Gear Diff Shim Small(8pcs)	R121024	R12 Diff Case
R103024	Gear Diff Shim Big(4pcs)	R121030	R12 Eccentric Hub (4)
R104005	O'Ring 26x1 For Diff Case(2pcs)	R122022	R12 Upper Bulkhead
R104006	O'ring 5x2(4pcs)	R122023	R12 Upper Link Base
R104113	CNC Spur 102T (64dp)	R122042	R12FF Motor Bulkhead-R
R105103	3x4 Round Screw (10)	R122043	R12FF Motor Bulkhead-L
R105104	3x6 Round Screw (10)	R122044	R12FF Front Upper Bulkhead
R105105	3x8 Round Screw (10)	R122045	R12FF Main Shaft
R105106	3x10 Round Screw (10)	R128021	R12FF Upper Deck 2.0mm
R105201	2.5x8mm Flat Screw (10)	R128030	R12FF Front Shock Tower
R105202	3x4mm Flat Screw (10)	R128033	R12FF Rear Shock Tower
R105203	3x6mm Flat Screw (10)	R801111	Pulley Set -Front
R105206	3x12mm Flat Screw (10)	R805101	4x6 Round Screw (10)
R105504	E-Clip 4mm (8pcs)	R806100	Pin 2.5x11.8 (6)
R106013	6x10x3 Ball Bearing (2)		

### 1:1 SCALE


	R105103 3x4 Round Screw (10)		R102015 3x5.5x2mm Alu Shims (8)
	R105104 3x6 Round Screw (10)		R102018 3x5.5x4mm Alu Shims (4)
	R105105 3x8 Round Screw (10)		R102020 3x6x0.5mm Alu Shims (8)
	R105106 3x10 Round Screw (10)		R106013 6x10x3 Ball Bearing (2)
	R805101 4x6 Round Screw (10)		R106021 Low Friction Ball Bearing 10x15x4
	R105201 2.5x8mm Flat Screw (10)		R106101 Ø2x9.8 Pin (10)
	R105202 3x4mm Flat Screw (10)		R106104 Ø2x11.8 Pin (10)
	R105203 3x6mm Flat Screw (10)		R806100 Ø2.5x11.8 Pin (6)
	R105206 3x12mm Flat Screw (10)		
	R105504 E-Clip 4mm (8)		

-  **R106101** Ø2x9.8 Pin (10)
-  **R106105** Ø1.5x8.1 Pin (10)
-  **R105105** 3x8 Round Screw (10)
-  **R805299** 2.5x6mm Cap Screw (10)
-  **R106012** Low Friction Ball Bearing 5x10x4 (4)

1:1 Scale

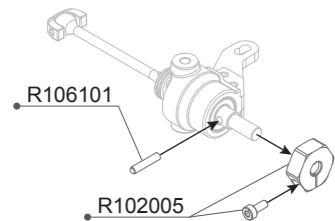
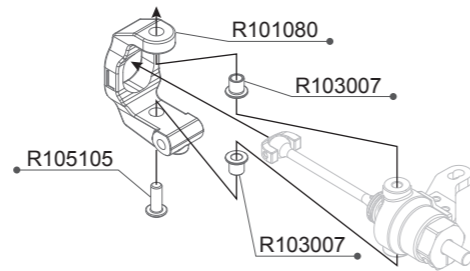
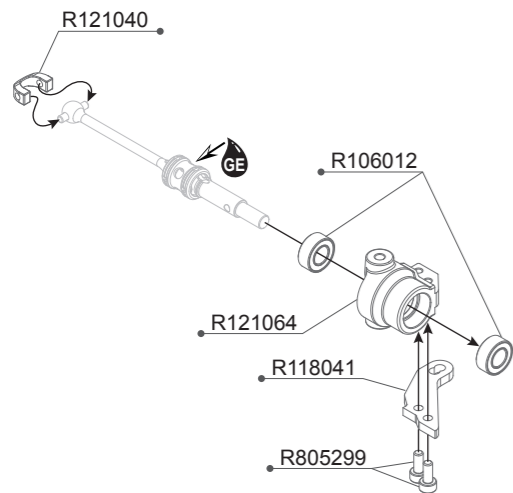


**NOTICE**  
R109009

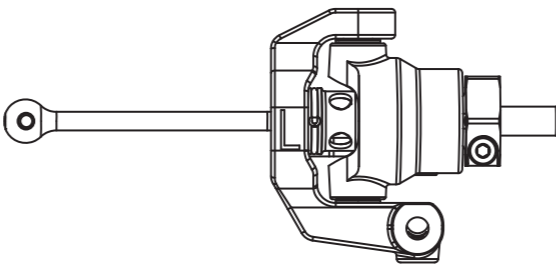


Front 40 DJ CVD x2





### Front Steering Block L (前轉向座-左邊)



**Left Side Finished View / 左邊完成圖**

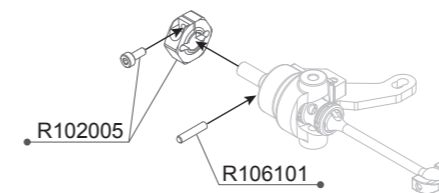
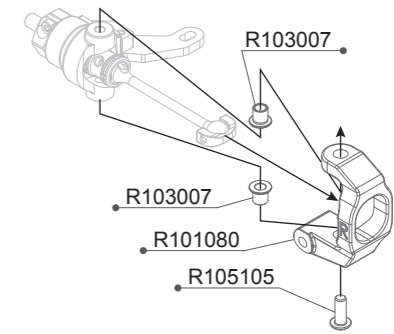
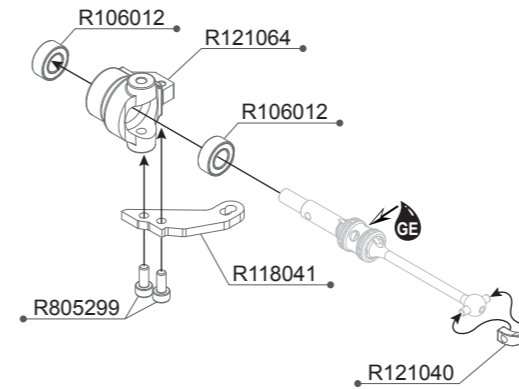


- |         |   |         |                              |
|---------|---|---------|------------------------------|
| R101080 | C-Hub 4 Right + Left                    | R106101 | 2x9.8mm Pin (10pcs)          |
| R102005 | Hex Wheel Hub Alu(2pcs)                 | R106105 | 1.5x8mm Pin (10pcs)          |
| R103007 | Steering Block Bushing(4pcs)            | R107003 | D.J CVD G-Clip(8pcs)         |
| R103101 | D.J CVD Wheel Shaft (1pcs)              | R113031 | D.J CVD Shaft +1 (40mm) 2pcs |
| R103103 | D.J CVD Insert(2pcs)                    | R118041 | R11 Steering Plate-Std (2)   |
| R103104 | D.J CVD Joint (1pcs)                    | R121040 | C Cap-Strong (16pcs)         |
| R105105 | 3x8 Round Screw (10)                    | R121064 | R12 Steering Block-Hard      |
| R106012 | Low Friction Ball Bearing 5x10x4 (4pcs) | R805299 | 2.5x6mm Cap Screw (10)       |

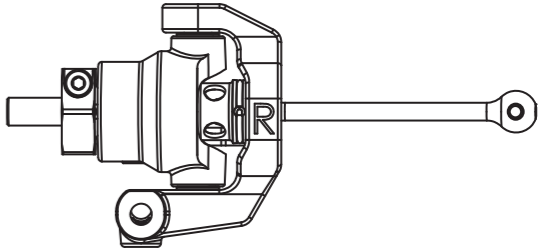
-  **R105105** 3x8 Round Screw (10)
-  **R106101** Ø2x9.8 Pin (10)
-  **R805299** 2.5x6mm Cap Screw (10)
-  **R106012** Low Friction Ball Bearing 5x10x4 (4)

1:1 Scale

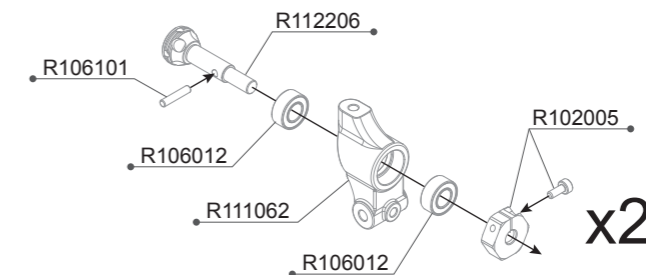
### Front Steering Block R (前轉向座-右邊)



**Right Side Finished View / 右邊完成圖**



### Rear Upright X2 / 後輪座X2組

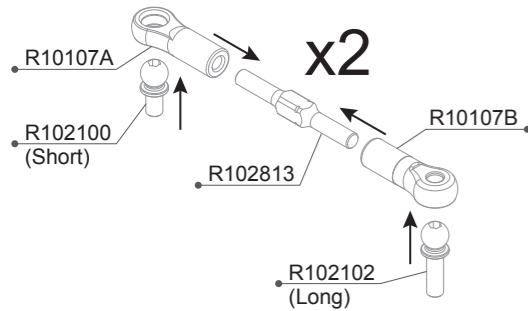
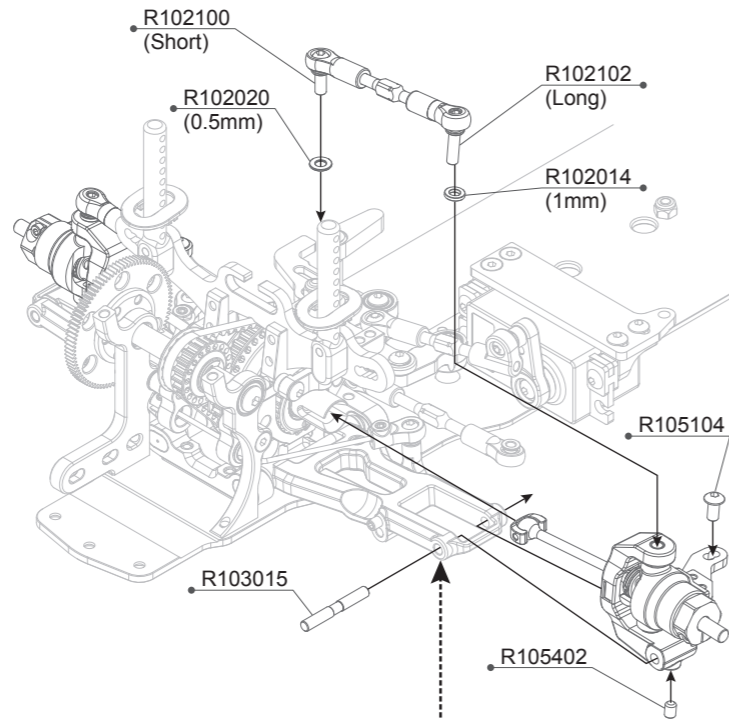
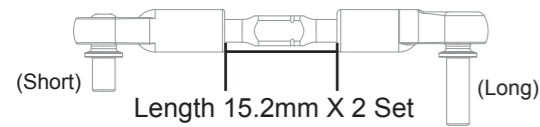


- |         |   |         |                            |
|---------|---|---------|----------------------------|
| R101080 | C-Hub 4 Right + Left                    | R111062 | R11 Rear Upright-Hard      |
| R102005 | Hex Wheel Hub Alu(2pcs)                 | R112206 | R11 Wheel Axle-7075 (2)    |
| R103007 | Steering Block Bushing(4pcs)            | R118041 | R11 Steering Plate-Std (2) |
| R105105 | 3x8 Round Screw (10)                    | R121040 | C Cap-Strong (16pcs)       |
| R106012 | Low Friction Ball Bearing 5x10x4 (4pcs) | R121064 | R12 Steering Block-Hard    |
| R106101 | 2x9.8mm Pin (10pcs)                     | R805299 | 2.5x6mm Cap Screw (10)     |

-  **R102020** 3x6x0.5mm Alu Shims (8)
-  **R102014** 3x5.5x1mm Alu Shims (8)
-  **R105104** 3x6 Round Screw (10)
-  **R105402** 3x4mm Set Screw (10)

1:1 Scale

### Front Link

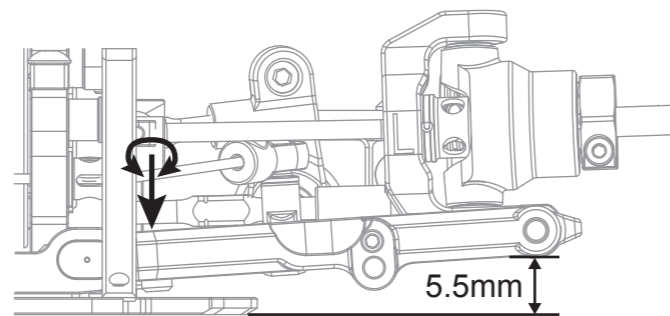


### NOTICE

#### FRONT DROOP SETUP / 前擺臂上抬量設定



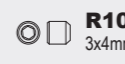
Set initial front droop at 5.5mm. In bumpy or low traction conditions, lower droop will help to improve traction and handling. In flat or high traction conditions, higher droop will increase response and reduce traction roll.

請將前下擺臂起始的上抬量設定在5.5mm，在不平的地面或低抓地力的路面可以降低這數值以增加抓地力，在高抓力的路面可以將這個數值加高，可以增加車頭轉向的反應並減少整體的抓地力。



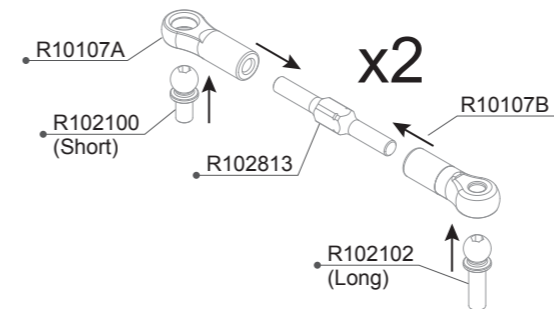
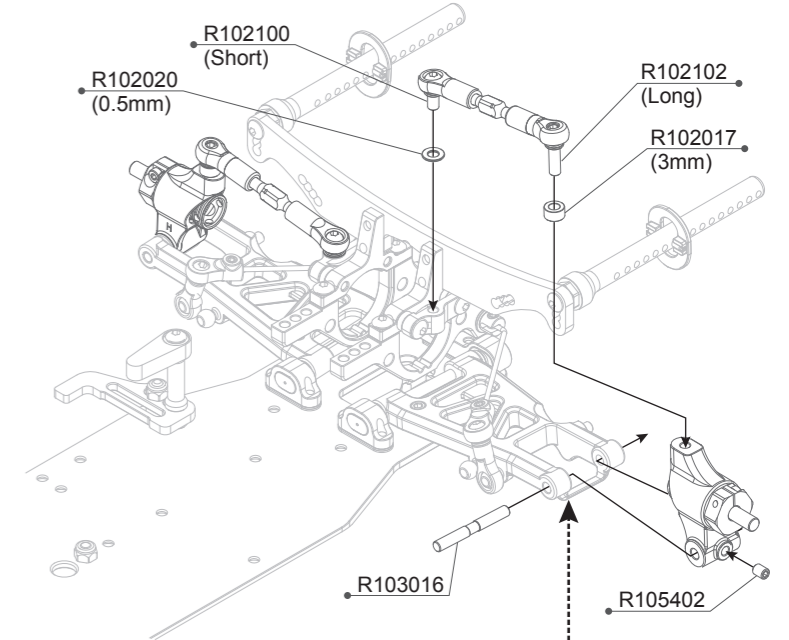
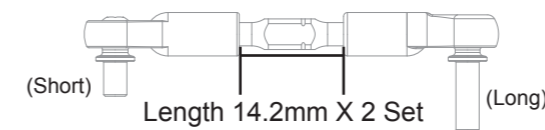
- R10107A Ball Joint 4.9mm Open (6pcs)
- R10107B Ball Joint 4.9mm Closed (4pcs)
- R102014 3x5.5x1mm Alu Shims(8pcs)
- R102020 3x6x0.5mm Alu Shims(8pcs)
- R102100 Alu 4.9mm Ball End Short(4pcs)

- R102102 Alu 4.9mm Ball End Long(4pcs)
- R102813 Turnbuckle 3x28mm ALU-7075 (2pcs)
- R103015 Pivot Pin Front-Out(2pcs)
- R105104 3x6 Round Screw (10)
- R105402 3x4mm Set Screw (10)

-  **R102020** 3x6x0.5mm Alu Shims (8)
-  **R102017** 3x5.5x3mm Alu Shims (4)
-  **R105402** 3x4mm Set Screw (10)

1:1 Scale

### Rear Link

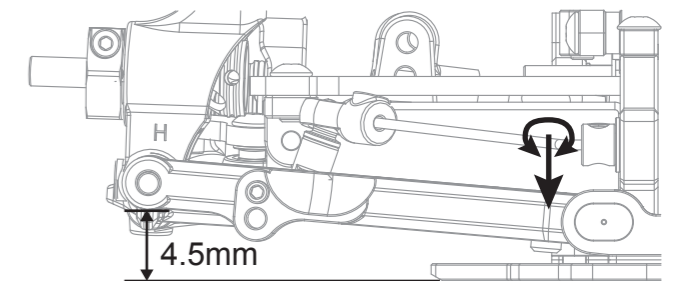


### NOTICE

#### REAR DROOP SETUP / 後擺臂上抬量設定

Please setup the initial droop in 4.5mm, more droop will increase steering into the corner, less droop will increase the stability into the corner, also help to reduce traction roll.

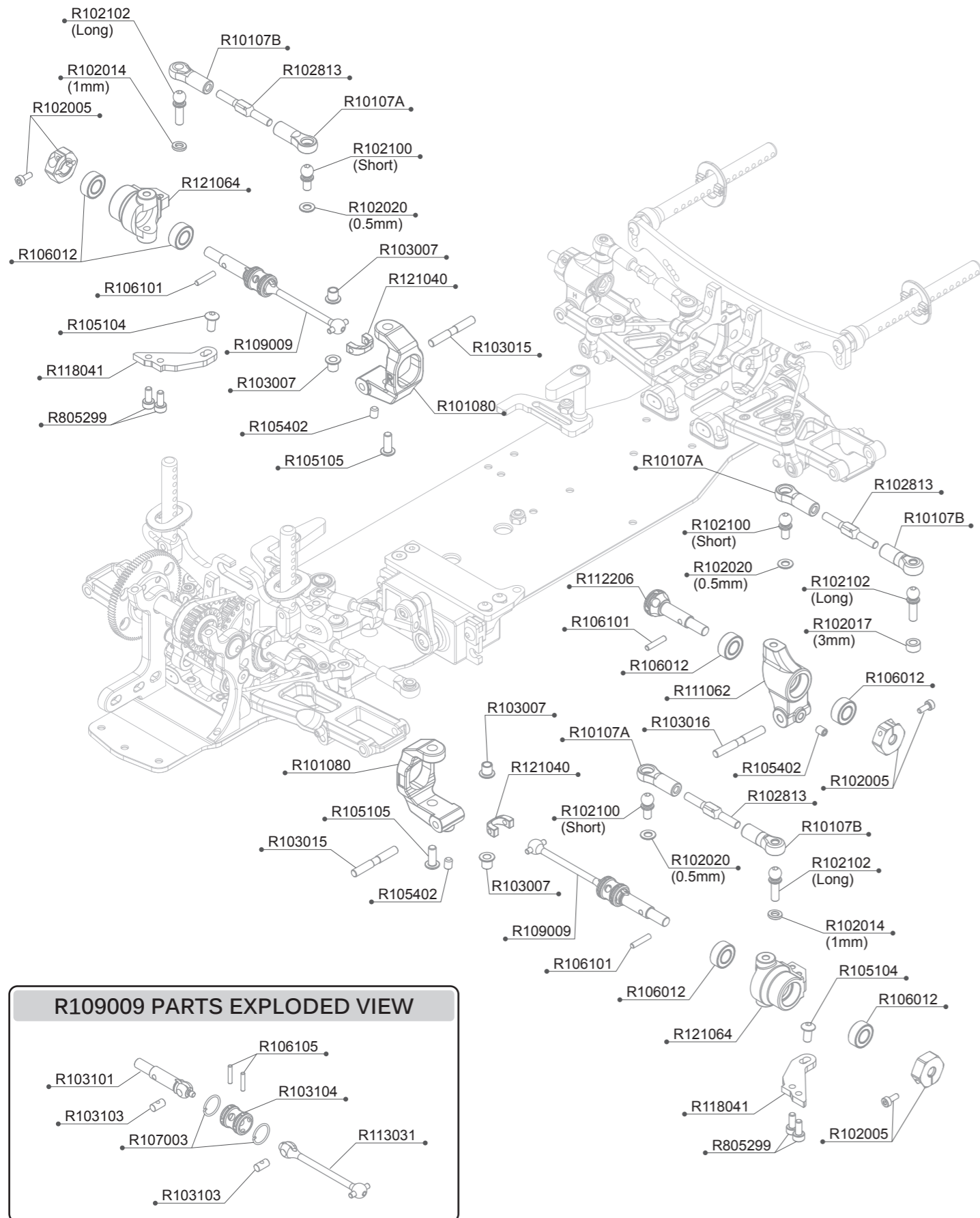
請將後下擺臂起始的上抬量設定在4.5mm，增加這個數值可以增加車輛進入彎道時的轉向能力，當降低上抬量數值時，可以增加車輛後方在入彎的穩定性並過大的抓地力造成防止翻車。



- R10107A Ball Joint 4.9mm Open (6pcs)
- R10107B Ball Joint 4.9mm Closed (4pcs)
- R102017 3x5.5x3mm Alu Shims(4pcs)
- R102020 3x6x0.5mm Alu Shims(8pcs)
- R102100 Alu 4.9mm Ball End Short(4pcs)

- R102102 Alu 4.9mm Ball End Long(4pcs)
- R102813 Turnbuckle 3x28mm ALU-7075 (2pcs)
- R103016 Pivot Pin Rear-Out(2pcs)
- R105402 3x4mm Set Screw (10)

## R12FF BAG 05 PARTS EXPLODED VIEW



## R12FF BAG 05 PARTS LIST

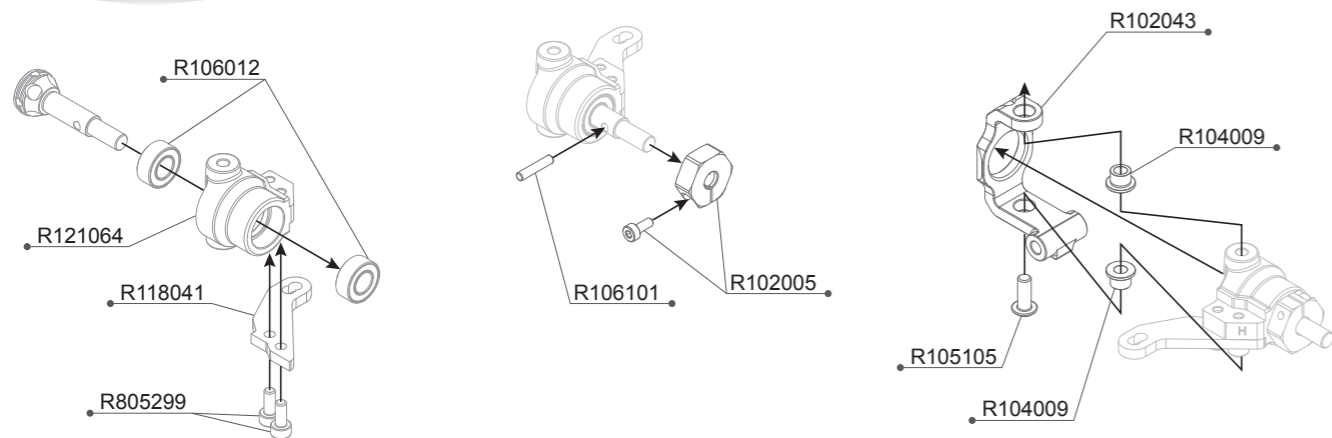
R10107A	Ball Joint 4.9mm Open (6pcs)	R103104	D.J CVD Joint (1pcs)
R10107B	Ball Joint 4.9mm Closed (4pcs)	R105104	3x6 Round Screw (10)
R101080	C-Hub 4 Right + Left	R105105	3x8 Round Screw (10)
R102005	Hex Wheel Hub Alu(2pcs)	R105402	3x4mm Set Screw (10)
R102014	3x5.5x1mm Alu Shims(8pcs)	R106012	Low Friction Ball Bearing 5x10x4 (4pcs)
R102017	3X5.5X3mm Alu Shims(4pcs)	R106101	2x9.8mm Pin (10pcs)
R102020	3x6x0.5mm Alu Shims(8pcs)	R106105	1.5x8mm Pin (10pcs)
R102100	Alu 4.9mm Ball End Short(4pcs)	R107003	D.J CVD G-Clip(8pcs)
R102102	Alu 4.9mm Ball End Long(4pcs)	R111062	R11 Rear Upright-Hard
R102813	Turnbuckle 3x28mm ALU-7075 (2pcs)	R112206	R11 Wheel Axle-7075 (2)
R103007	Steering Block Bushing(4pcs)	R113031	D.J CVD Shaft +1 (40mm) 2pcs
R103015	Pivot Pin Front-Out(2pcs)	R118041	R11 Steering Plate-Std (2)
R103016	Pivot Pin Rear-Out(2pcs)	R121040	C Cap-Strong (16pcs)
R103101	D.J CVD Wheel Shaft (1pcs)	R121064	R12 Steering Block-Hard
R103103	D.J CVD Insert(2pcs)	R805299	2.5x6mm Cap Screw (10)

### 1:1 SCALE

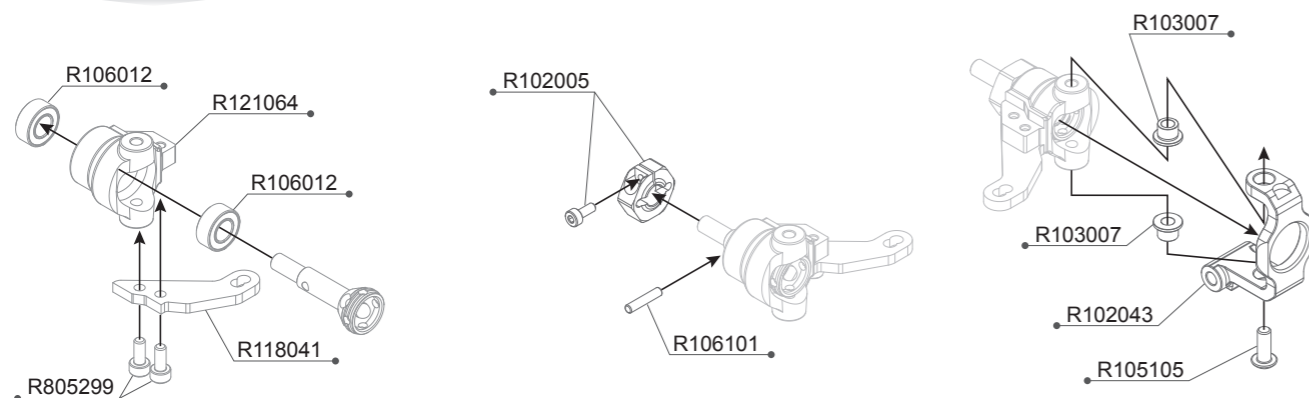
	R105104 3x6 Round Screw (10)		R102014 3x5.5x1mm Alu Shims (8)
	R105105 3x8 Round Screw (10)		R102017 3x5.5x3mm Alu Shims (4)
	R105402 3x4mm Set Screw (10)		R102020 3x6x0.5mm Alu Shims (8)
	R106101 Ø2x9.8 Pin (10)		R106012 Low Friction Ball Bearing 5x10x4
	R106105 Ø1.5x8.1 Pin (10)		
	R805299 2.5x6mm Cap Screw (10)		

## Option Parts (Not Included) / 改装品(未附於套件内) R129004 R12 ATS SYSTEM

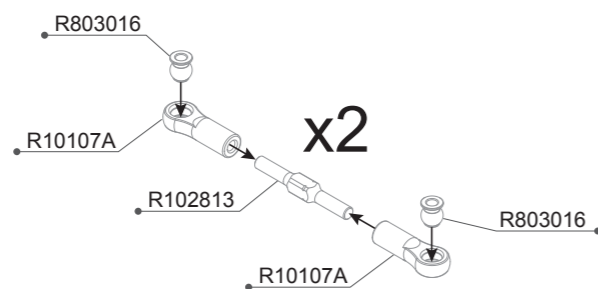
### Left Side



### Right Side



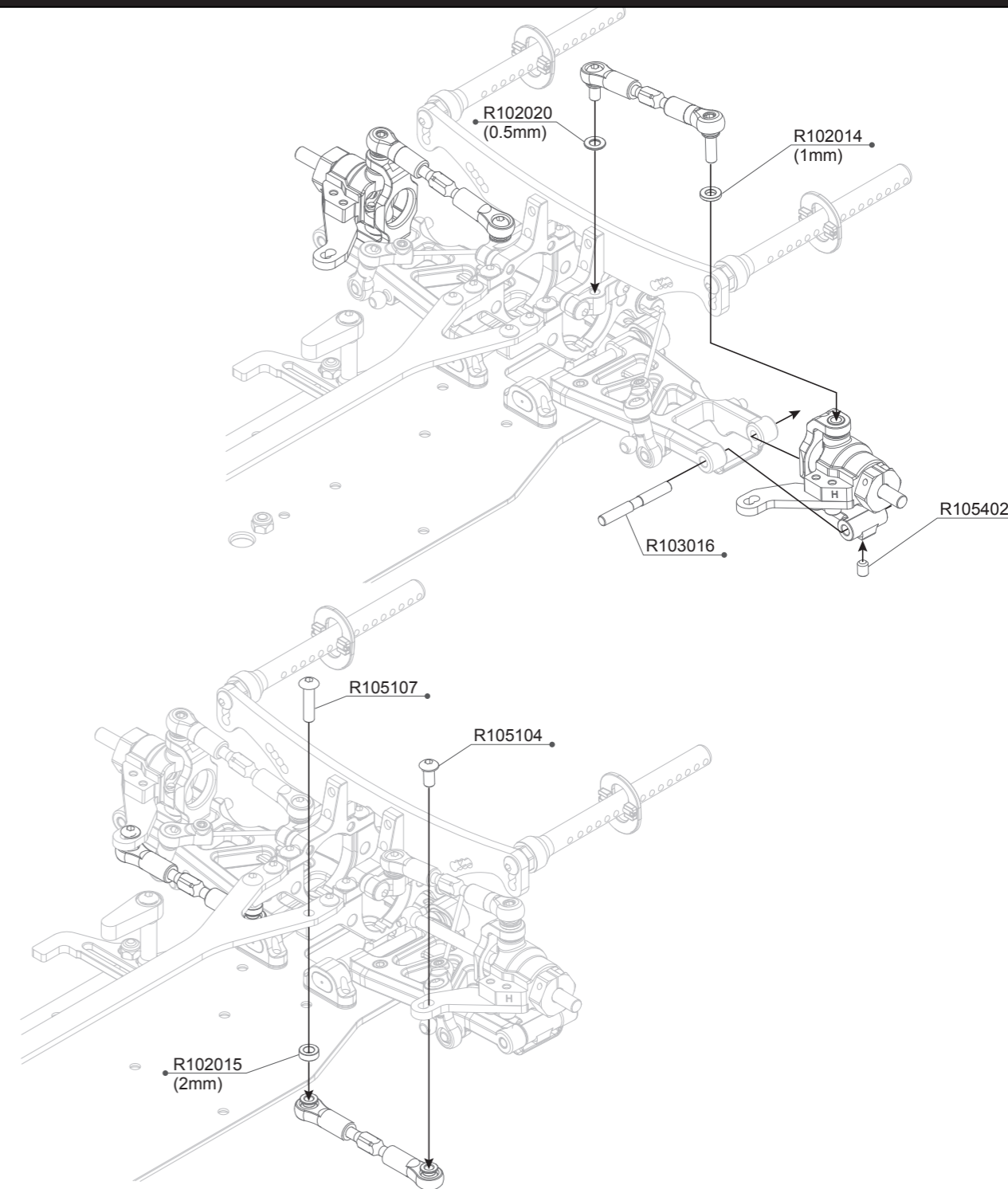
### ATS Link



### R129004 R12 ATS SYSTEM PARTS LIST

R10107A	Ball Joint 4.9mm Open (6pcs)	R105105	3x8 Round Screw (10)
R102005	Hex Wheel Hub Alu(2pcs)	R105107	3x12 Round Screw (10)
R102014	3x5.5x1mm Alu Shims(8pcs)	R105402	3x4mm Set Screw (10)
R102015	3x5.5x2mm Alu Shims(8pcs)	R106012	Low Friction Ball Bearing 5x10x4 (4pcs)
R102020	3x6x0.5mm Alu Shims(8pcs)	R106101	2x9.8mm Pin (10pcs)
R102043	ATS C-Hub (Alu) 2pcs	R118041	R11 Steering Plate-Std (2)
R102813	Turnbuckle 3x28mm ALU-7075 (2pcs)	R121064	R12 Steering Block-Hard
R104009	Bushing for Alu C-Hub (4pcs)	R803016	Ball Head 4.9mm (4)
R103016	Pivot Pin Rear-Out(2pcs)	R805299	2.5x6mm Cap Screw (10)
R105104	3x6 Round Screw (10)		

## Option Parts (Not Included) / 改装品(未附於套件内) R129004 R12 ATS SYSTEM



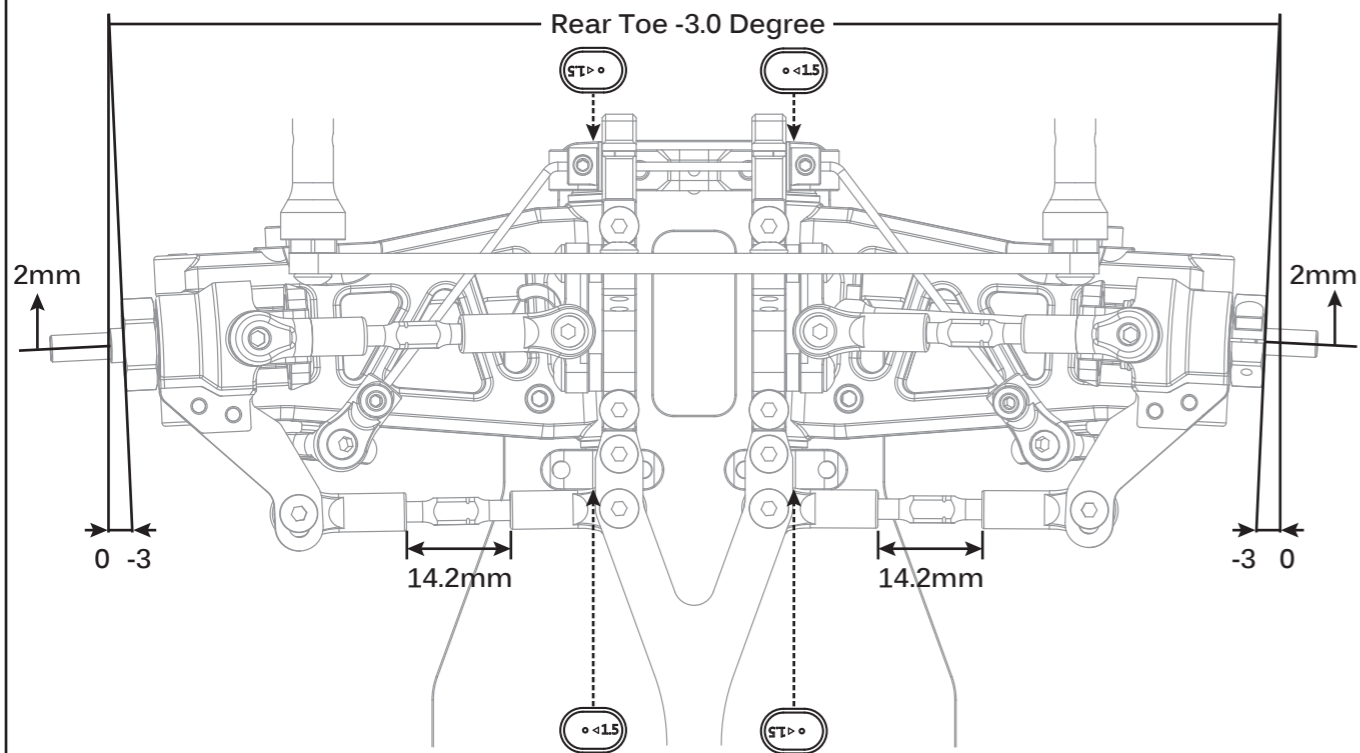
### 1:1 SCALE

R102014	R105104	R105402
3x5.5x1mm Alu Shims (8)	3x6 Round Screw (10)	3x4mm Set Screw (10)
R102015	R105105	R805299
3x5.5x2mm Alu Shims (8)	3x8 Round Screw (10)	2.5x8mm Cap Screw (10)
R102020	R105107	R106012
3x6x0.5mm Alu Shims (8)	3x12 Round Screw (10)	Low Friction Ball Bearing 5x10x4
R106101		
Ø2x9.8 Pin (10)		



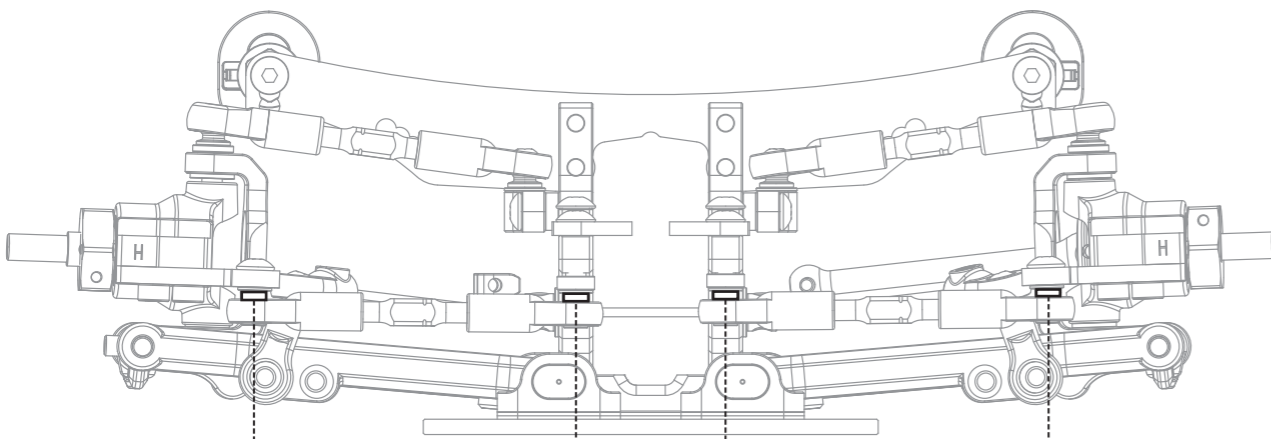
Option Parts (Not Included) / 改裝品 (未附於套件內) R129004 R12 ATS SYSTEM

R12 ATS DEFAULT SETUP



The default rear toe setup for the R12 is -3.0 degrees. When installing ATS, please setup suspension insert like above and toe linkage at 14.2mm to achieve -3.0 degrees and wheel base extend 2mm. 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.

預設的R12FF 後前束角為-3度，當安裝ATS系統時請依圖中設定並將拉桿長度設定在14.2mm此時後前束角為-3度，軸距會增加2mm，後前束角可利用圖示中的二支拉桿來調整，當拉桿的長度越長時後前束角會變的更小，當拉桿縮短時可增加後前束角的角度。



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.

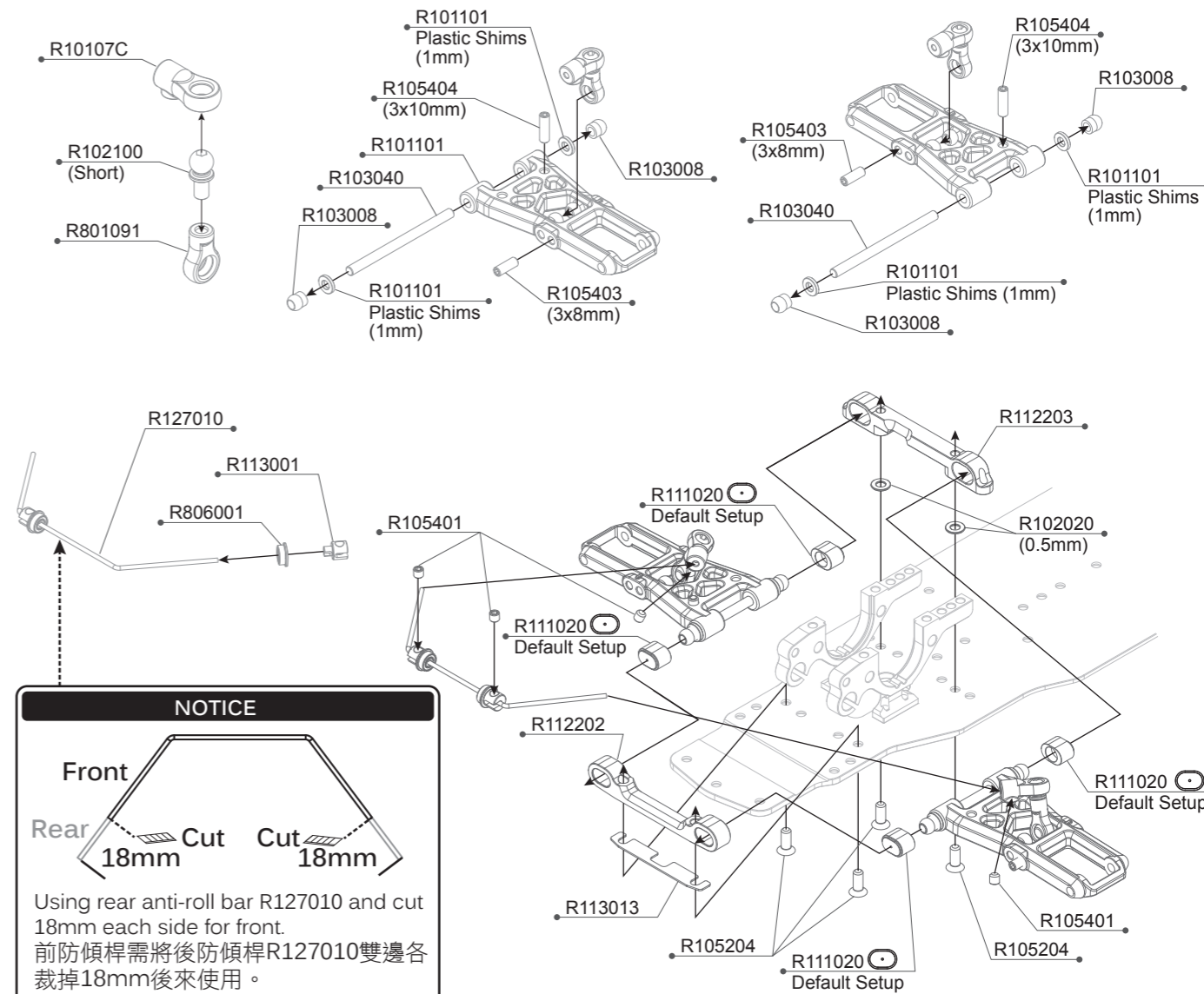
圖示中有四個墊片可以用來調整行駛中ATS後前束角的變化程度，預設的墊片為內側為2mm，外側為0mm，當拉桿越斜時後前束角的變化量越大，拉桿越平時後前束角的變化越小。

Option Parts (Not Included) / 改裝品 (未附於套件內) R129012 R12FF FRONT SHORT ARM SET

NOTICE

The R12FF can convert the front low arm into short with R129012 R12FF Front Short Arm Set, the shorter front arms will make the car easier to handle and avoid car oversteering especially in a high traction track.

R12FF 可選用R129012 前短擺臂組，較短的前下擺臂可以高抓地的跑道時有效的改善車子的操控性，防止轉向過度。



NOTICE

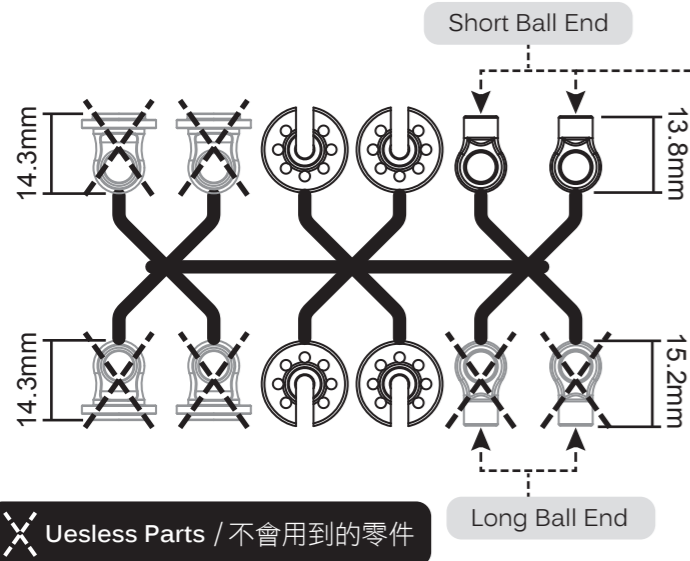
Using rear anti-roll bar R127010 and cut 18mm each side for front.  
前防傾桿需將後防傾桿R127010雙邊各裁掉18mm後來使用。

R129012 R12FF FRONT SHORT ARM SET PARTS LIST

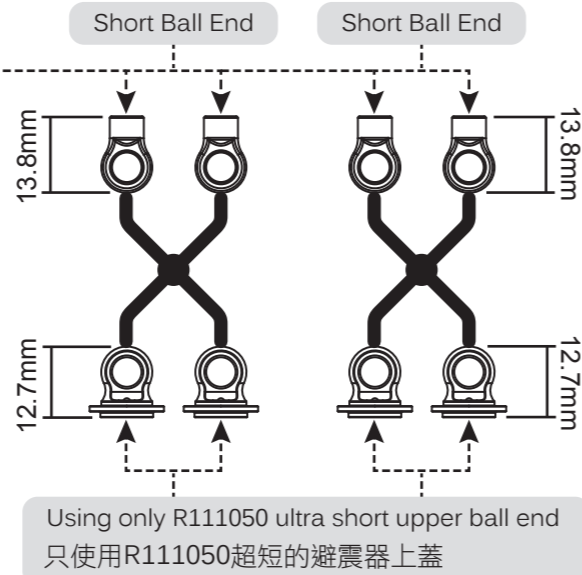
R10107C	Anti-Roll Bar Joint (4pcs)	R105404	3x10mm Set Screw (10)
R101101	Low Arm F/R Set (Hard)	R111020	Suspension Insert #0~#+2
R102020	3x6x0.5mm Alu Shims(8pcs)	R112202	R11 Suspension Block FF
R102100	Alu 4.9mm Ball End Short(4pcs)	R112203	R11 Suspension Block FR
R103008	Ball 5mm(4pcs)	R113001	Anti-Roll Bar Holder (2)
R103040	Pivot Pin Inner-Short (2pcs)	R113013	R11 Roll Center Shims 0.5mm (4)
R105204	3x8mm Flat Screw (10)	R127010	R12 Rear Anti-Roll Bar 1.3mm
R105401	3x3mm Set Screw (10)	R801091	Ball End 4.9mm Short (2)
R105403	3x8mm Set Screw (10)	R806001	3x6x2.5 Flange Ball Bearing (2)

**NOTICE**

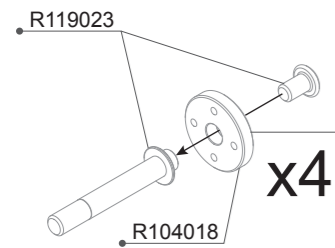
**R101130 Shock Ball Joint Set Big Bore**



**R111050 Shock Ball End Set-Ultra Short (2)**

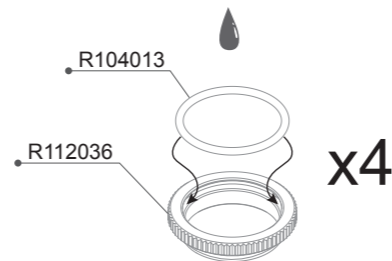


**Option Parts (Not Included) / 改裝品 (未附於套件內)**

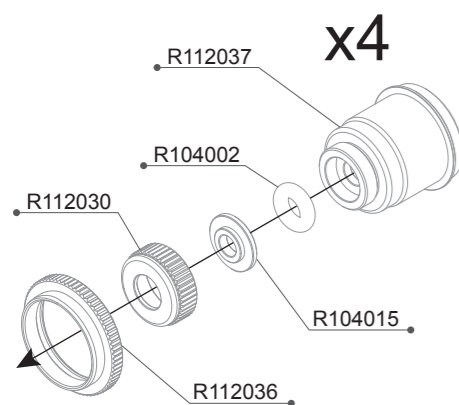


**R114010**  
PDS Piston (2)  
Using only together with R112038.  
必須與R112038搭配使用。

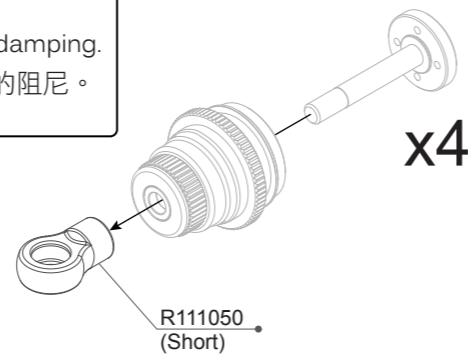
Apply shock oil before assembly  
請塗抹少許的避震油於O型環上



**Option Parts (Not Included) / 改裝品 (未附於套件內)**

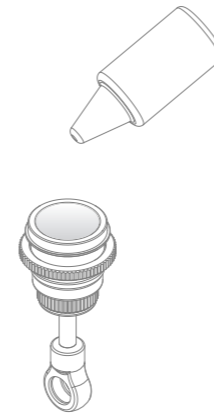


**R112038**  
PDS Cylinder-Ultra Short (2)  
The PDS will provide progressive damping.  
使用PDS可以使避震器有漸進式的阻尼。



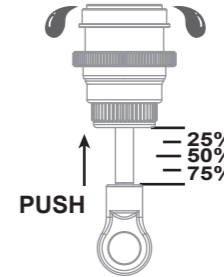
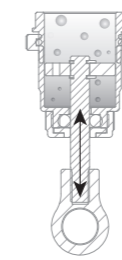
- |         |                                       |         |                                   |
|---------|---------------------------------------|---------|-----------------------------------|
| R104002 | O'ring 3x2(4pcs)                      | R112030 | R11 Shock Low Cap-Black (2)       |
| R104013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

**Silicone Oil #500**

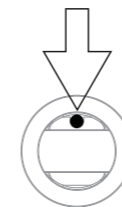
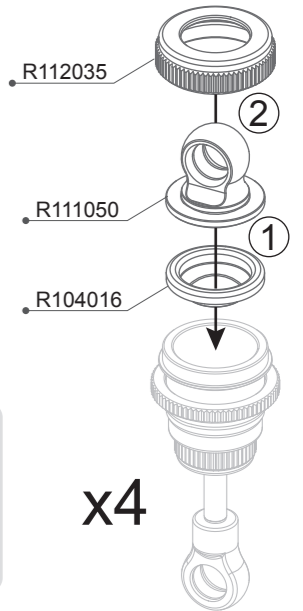


Fill the shock oil to the top of the shock body  
將矽油填滿整個桶身。

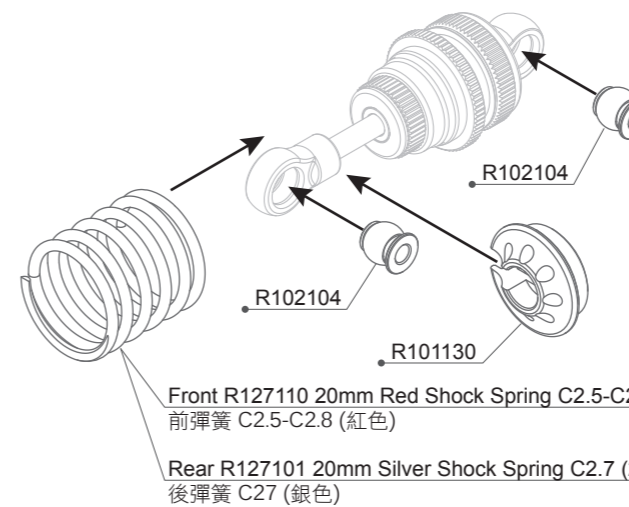
Move the shaft up and down to let the air escape from the oil  
上下移動活塞來將空氣排出。



To adjust the rebound amount of the shock, push the shock shaft in to the required level to remove excess oil during assembly.  
將活塞回推到設定的回彈位置後，再將氣室放入並將多餘的油排除。



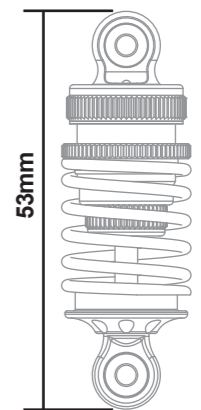
Drill the shock cap here to help provide zero rebound and softer dampening (optional setting).  
上球頭有預留鑽孔的記號，可選擇是否打通，在鑽孔打通後可減少氣室回彈的力道。



- Front R127110 20mm Red Shock Spring C2.5-C2.8 (2) x2  
前彈簧 C2.5-C2.8 (紅色)
- Rear R127101 20mm Silver Shock Spring C2.7 (2) x2  
後彈簧 C2.7 (銀色)

**NOTICE**

Shock Length  
避震器長度

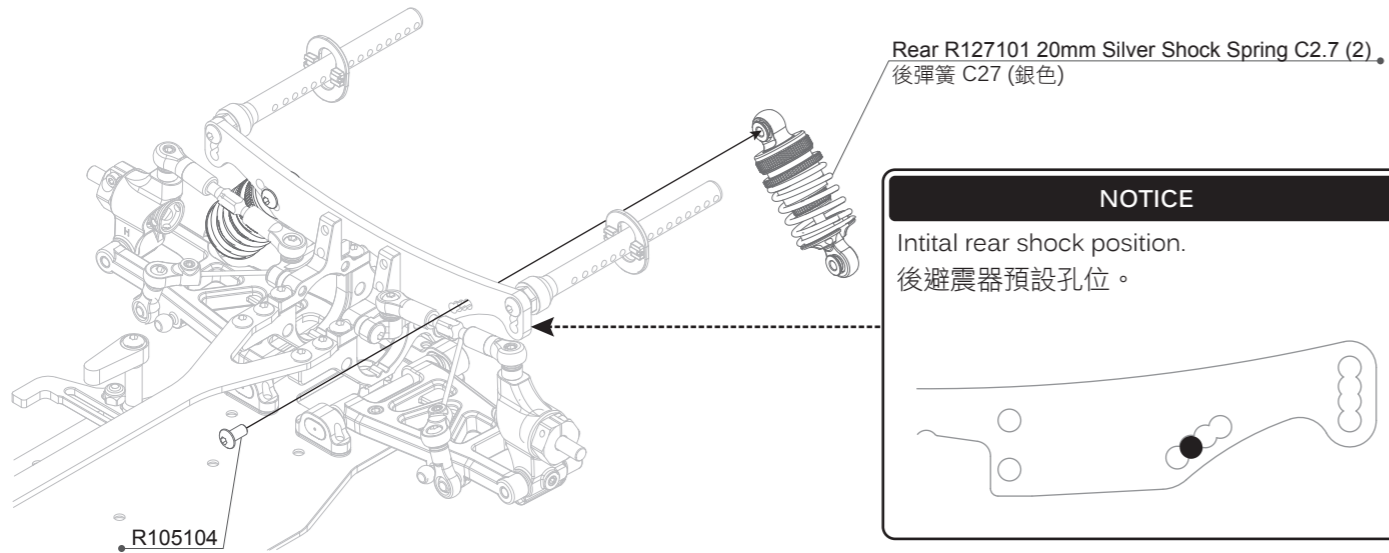
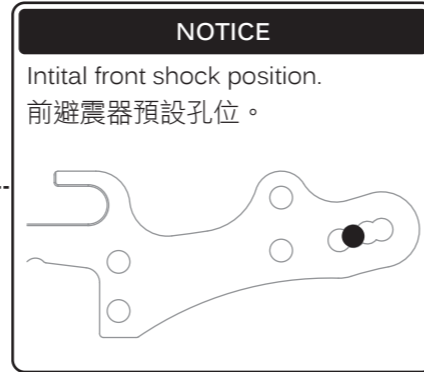
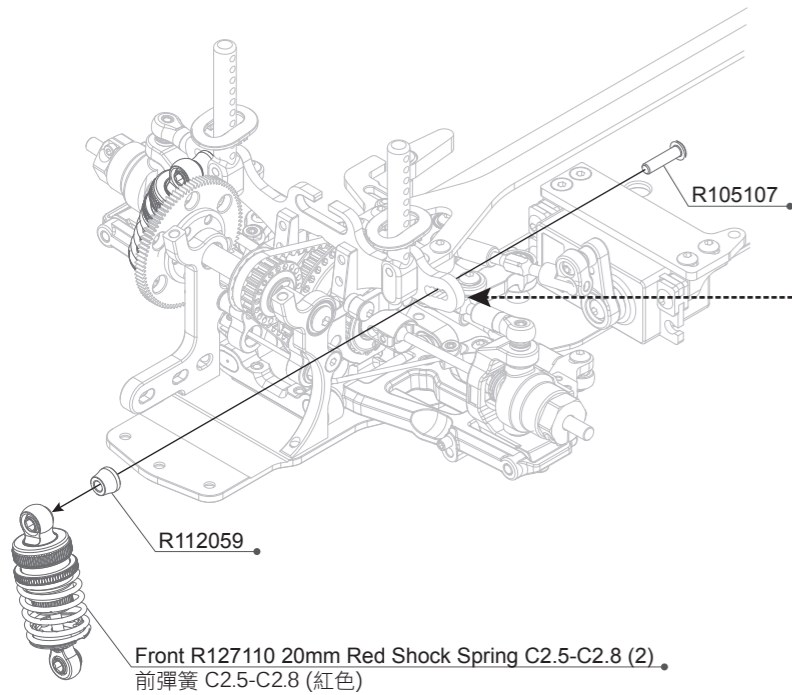


- |         |                                      |         |                                     |
|---------|--------------------------------------|---------|-------------------------------------|
| R101130 | Shock Ball Joint Set Big Bore        | R112035 | Shock Cap-Ultra Short (2)           |
| R102104 | 5.8mm Ball end Short type Alu (4pcs) | R127101 | 20mm Silver Shock Spring C=2.7(2)   |
| R104016 | Shock Membrane Big Bore (4pcs)       | R127110 | 20mm Red Shock Spring C2.5-C2.8 (2) |
| R111050 | Shock Ball End Set-Ultra Short (2)   |         |                                     |

**R105104**  
3x6 Round Screw (10)

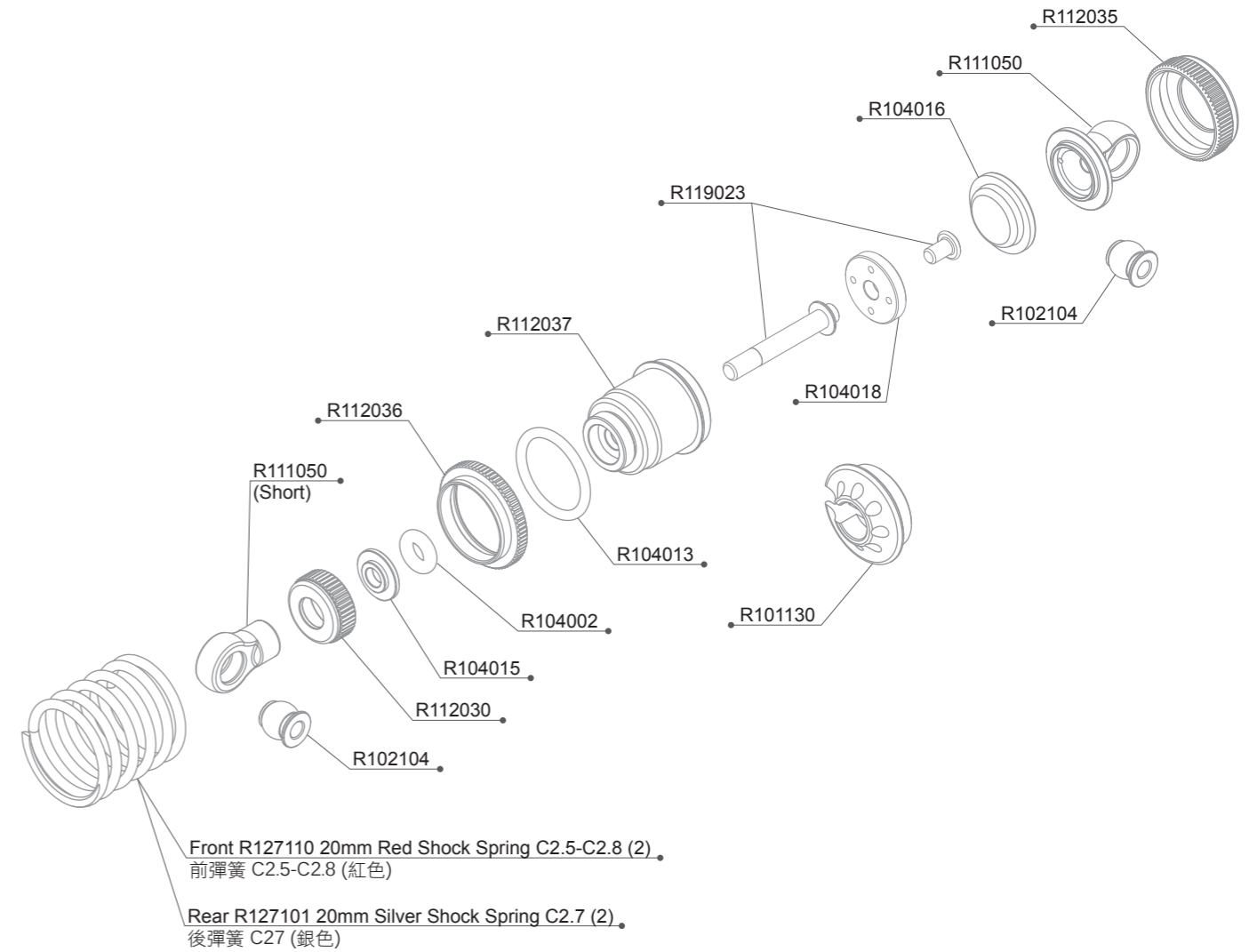
**R105107**  
3x12 Round Screw (10)

1:1 Scale



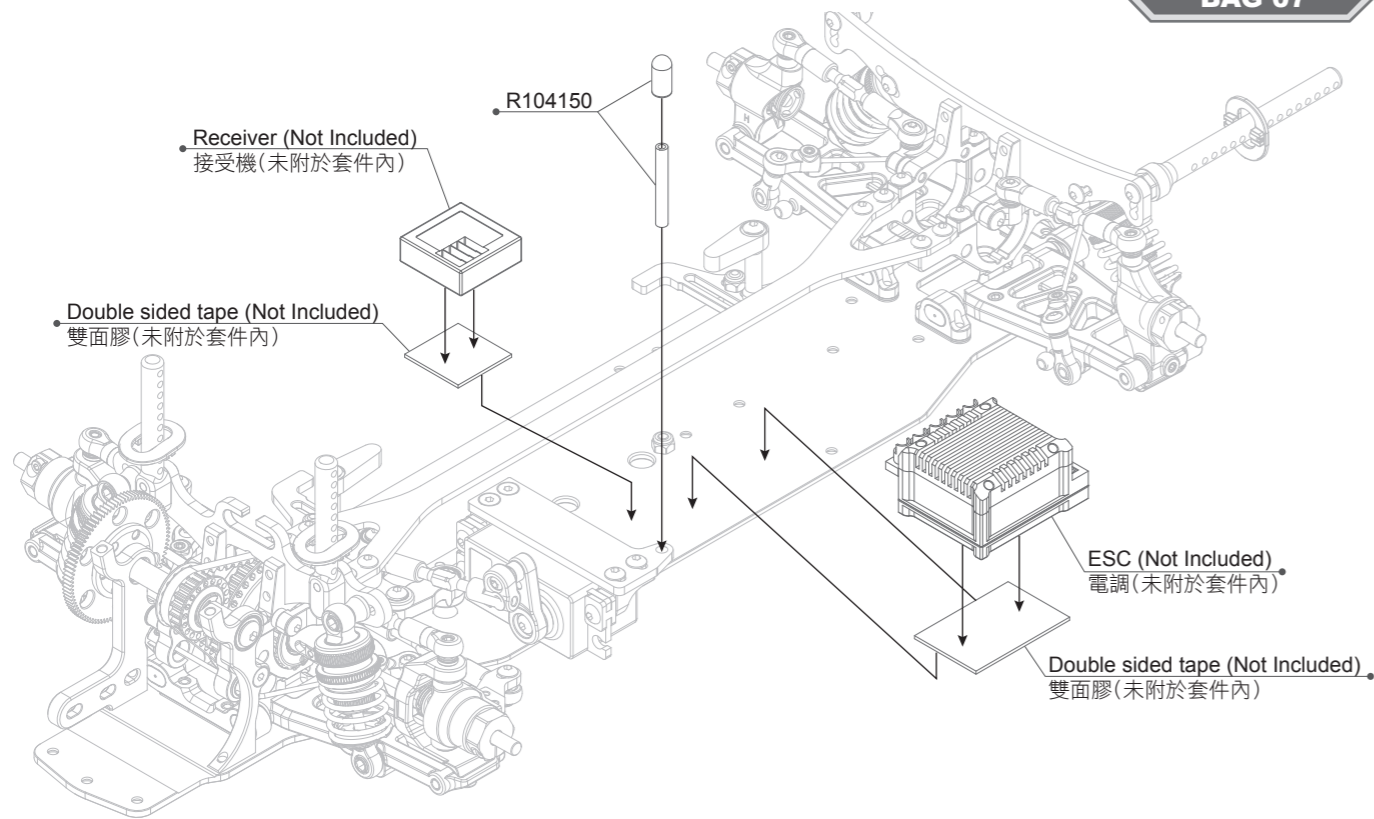
R105104 3x6 Round Screw (10)  
R105107 3x12 Round Screw (10)

R112059 ATS Base Tower 5mm (2)



### R12FF BAG 06 PARTS LIST

R101130	Shock Ball Joint Set Big Bore	R111050	Shock Ball End Set-Ultra Short (2)
R102104	5.8mm Ball end Short type Alu (4pcs)	R112030	R11 Shock Low Cap-Black (2)
R104002	O'ring 3x2(4pcs)	R112035	Shock Cap-Ultra Short (2)
R104013	O'ring 13x1 (2pcs)	R112036	Shock Adj Nut-Ultra Short (2)
R104015	Shock Shaft Shim Big Bore (4pcs)	R112037	Shock Body Ultra Short-MC (2)
R104016	Shock Membrane Big Bore (4pcs)	R112059	ATS Base Tower 5mm (2)
R104018	Shock Piston Big Bore 1.1mm x4 (4pcs)	R119023	Short Shock Shaft -Screw Type (4)
R105104	3x6 Round Screw (10)	R127101	20mm Silver Shock Spring C=2.7(2)
R105107	3x12 Round Screw (10)	R127110	20mm Red Shock Spring C2.5-C2.8 (2)

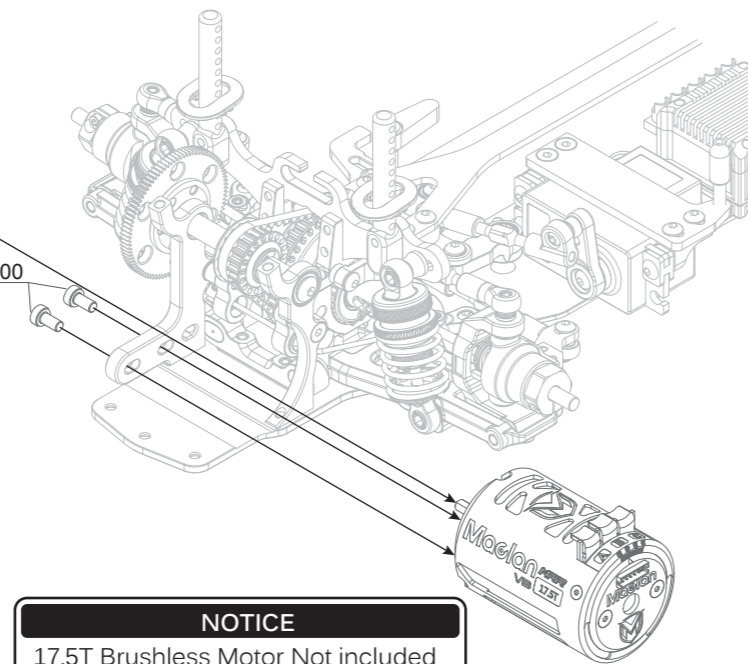
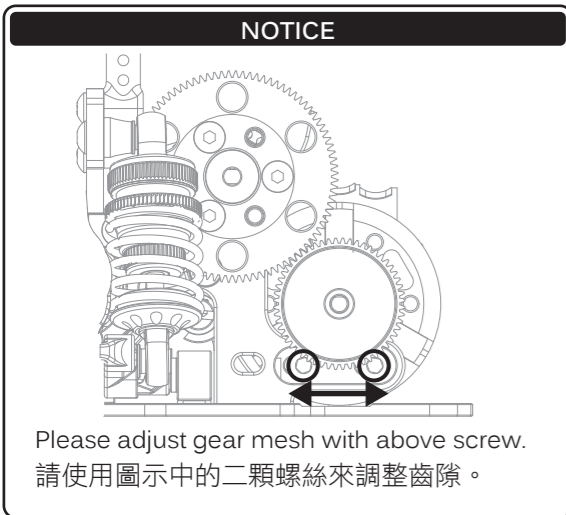


R104150 Antenna (1set)

**R105300**  
3x6mm Cap Screw (10)

1:1 Scale

64dp Pinion Not Included  
Recommend gear ratio in page 18  
64dp馬達齒(未附於套件內)  
/建議齒比可以參考第18頁



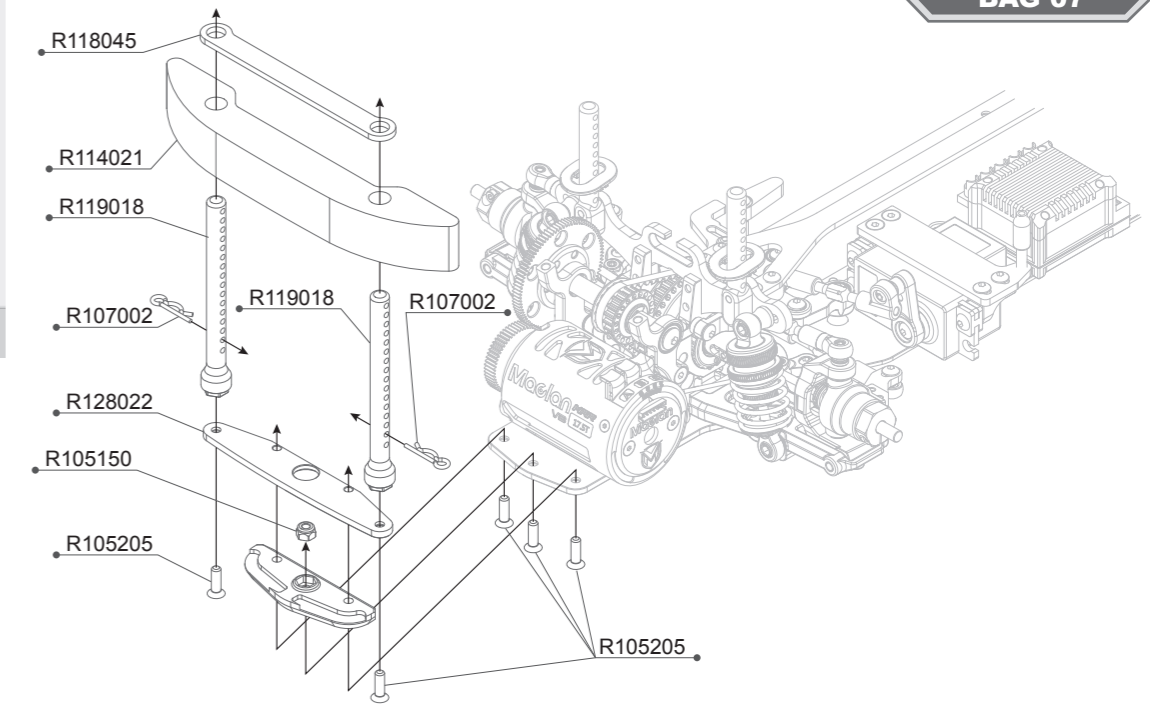
**NOTICE**  
17.5T Brushless Motor Not included  
17.5T 無刷馬達(未附於套件內)。

R105300 3x6mm Cap Screw (10)

**R105205**  
3x10mm Flat Screw (10)

**R105150**  
3mm Nylon Nut (10)

1:1 Scale



R105150 3mm Nylon Nut (10)  
R105205 3x10mm Flat Screw (10)  
R107002 R-Clip(8pcs)  
R114021 R11F Foam Bumper

R118045 R11F Front Body Tower Plate  
R119018 R11 Body Mount Set  
R128022 R12FF Front Bumper Plate

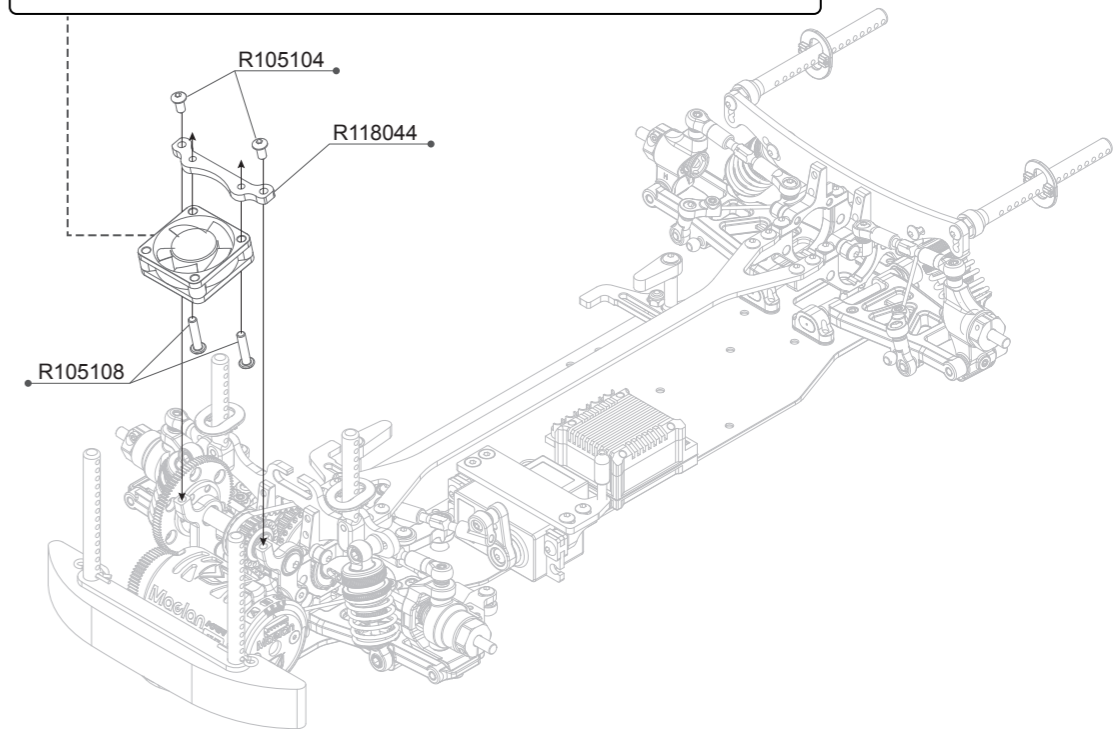
**R105104**  
3x6 Round Screw (10)

**R105108**  
3x14 Round Screw (10)

1:1 Scale

Option Parts (Not Included) / 改裝品(未附於套件內)

TiTAN 21002 H.V Motor cooling Fan. 強力風扇可以用來冷卻馬達



R105104 3x6 Round Screw (10)  
R105108 3x14 Round Screw (10)

R118044 R11F Fan Mount Plate



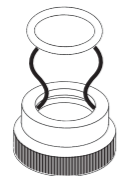
**R105151**  
4mm Nylon Nut (4)

1:1 Scale

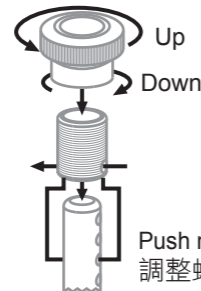
Option Parts (Not Included) / 改裝品 (未附於套件中)

**60603-V3 ADJUSTABLE BODY POST (4SET)**

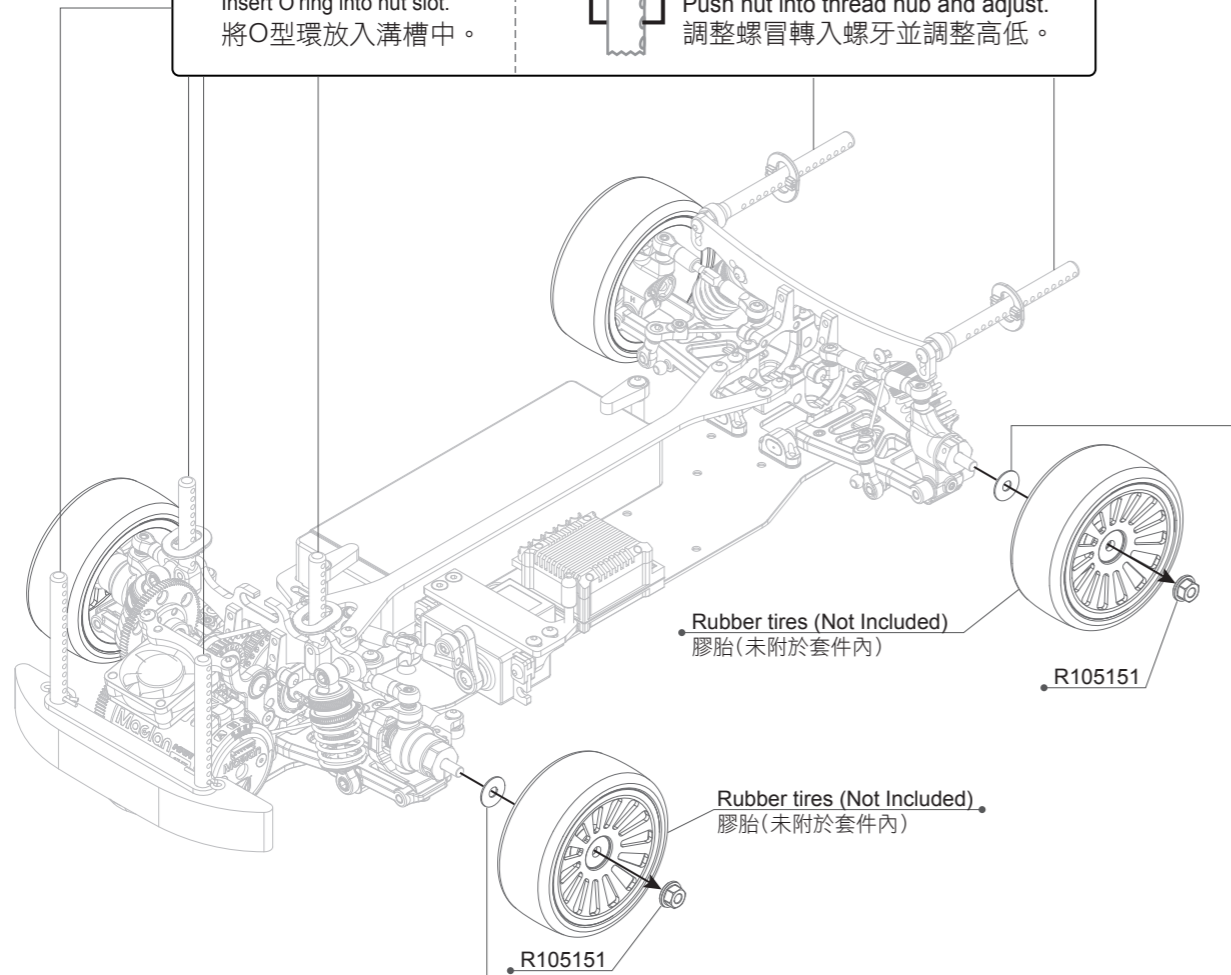
Use on all 6mm body posts. Can fine tune the height of body-shell.  
輕量化的可調式車殼支柱，可用來微調車殼的高度。



Insert O'ring into nut slot.  
將O型環放入溝槽中。



Push nut into thread hub and adjust.  
調整螺帽轉入螺牙並調整高低。



Rubber tires (Not Included)  
膠胎 (未附於套件內)

Rubber tires (Not Included)  
膠胎 (未附於套件內)

Option Parts (Not Included) / 改裝品 (未附於套件中)

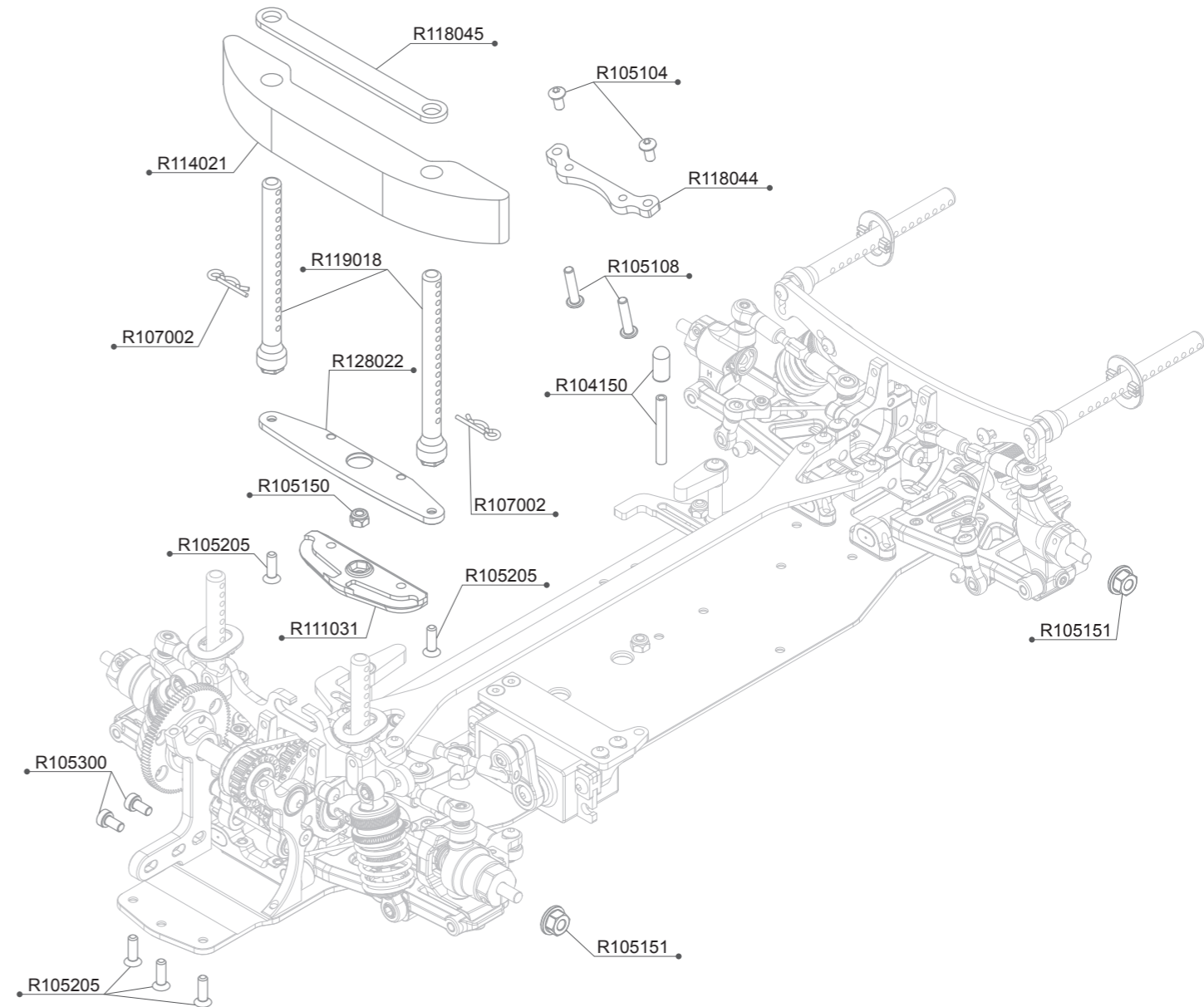
**R103028** 4x11x0.25mm Shims (8)

**R103029** 4x11x0.5mm Shims (8)

The track width can be increased by adding R103028 (0.25mm) and R103029 (0.5mm).  
車寬可以使用R103028 0.25mm與R103029 0.5mm墊片來增加車寬。

R105151 4mm Nylon Nut (4)

## R12FF BAG 07 PARTS EXPLODED VIEW



## R12FF BAG 07 PARTS LIST

R104150	Antenna (1set)	R107002	R-Clip(8pcs)
R105104	3x6 Round Screw (10)	R114021	R11F Foam Bumper
R105108	3x14 Round Screw (10)	R118044	R11F Fan Mount Plate
R105150	3mm Nylon Nut (10)	R118045	R11F Front Body Tower Plate
R105151	4mm Nylon Nut (4)	R119018	R11 Body Mount Set
R105205	3x10mm Flat Screw (10)	R128022	R12FF Front Bumper Plate
R105300	3x6mm Cap Screw (10)		

## 1:1 SCALE

