



# AP1

1/10 ELECTRIC TOURING CAR

INSTRUCTION MANUAL







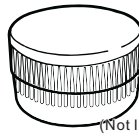


**SPEED!**

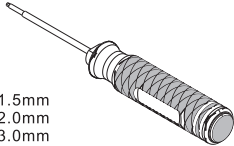
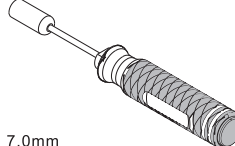
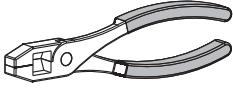
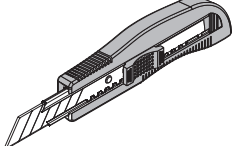
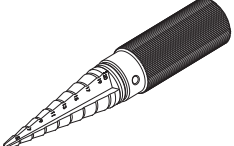
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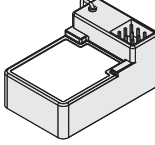
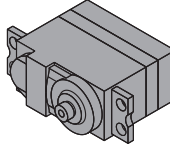
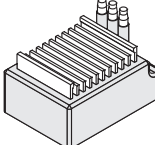
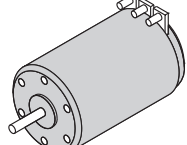

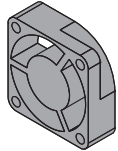
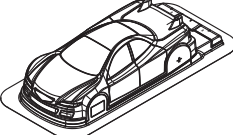
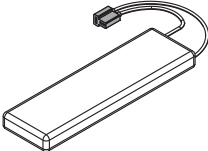
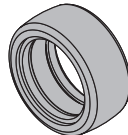
## Symbols Used

<p>Part Bags Need</p> 	<p>Assemble Left and Right sides the same way</p> 	<p>Pay attention here</p> 	<p>Apply Thread Lock</p>  <p>(Not Included)</p>	<p>Apply CA glue</p>  <p>(Not Included)</p>
			<p>Apply Silicone Oil</p>  <p>(Not Included)</p>	<p>Apply grease</p>  <p>(Not Included)</p>

## Tools Required

 <p>1.5mm 2.0mm 3.0mm</p> <p>Hex wrench (Not Included)</p>	 <p>7.0mm</p> <p>Hex wrench (Not Included)</p>	 <p>Pliers (Not Included)</p>	 <p>Modeling Knife (Not Included)</p>	 <p>Reamer (Not Included)</p>
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## Equipment Required

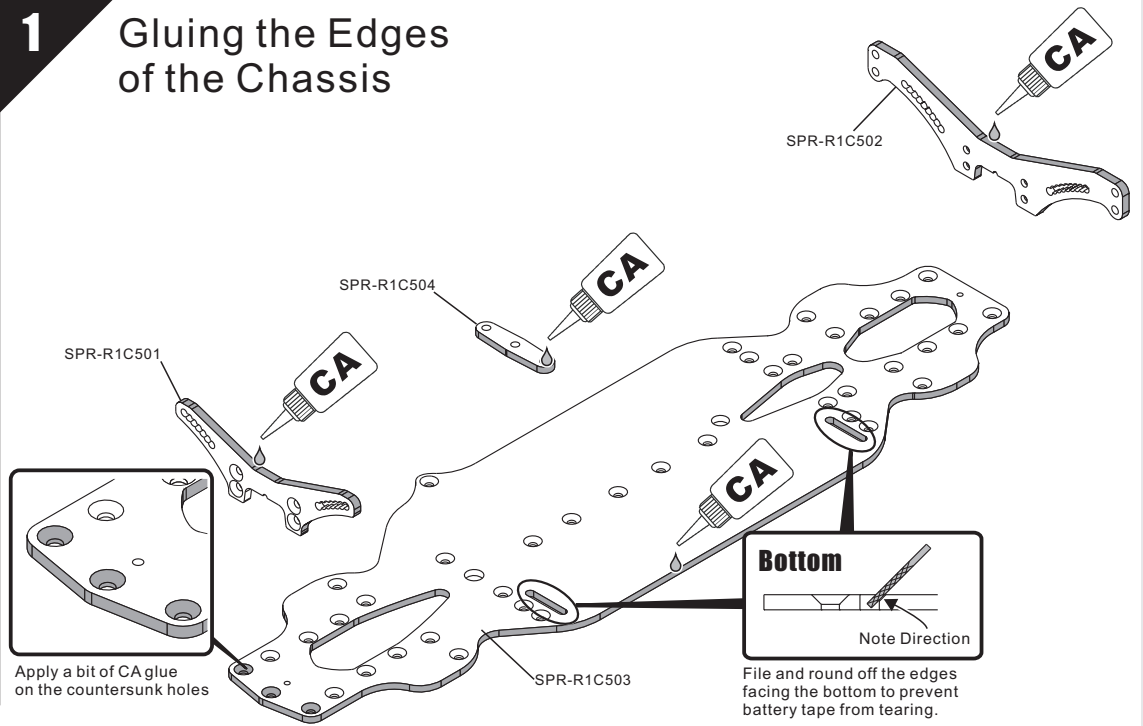
 <p>Transmitter (Not Included)</p>	 <p>Receiver (Not Included)</p>	 <p>Steering Servo (Not Included)</p>	 <p>Speed Controller (Not Included)</p>	 <p>Electric Motor (Not Included)</p>
 <p>Pinion Gear (Not Included)</p>	 <p>30mm Fan (Not Included)</p>	 <p>Body Shell (Not Included)</p>	 <p>Battery (Not Included)</p>	 <p>Tires &amp; Inserts (Not Included)</p>



# Assembly Instruction

**A** + **B**  
Bag Bag

## 1 Gluing the Edges of the Chassis

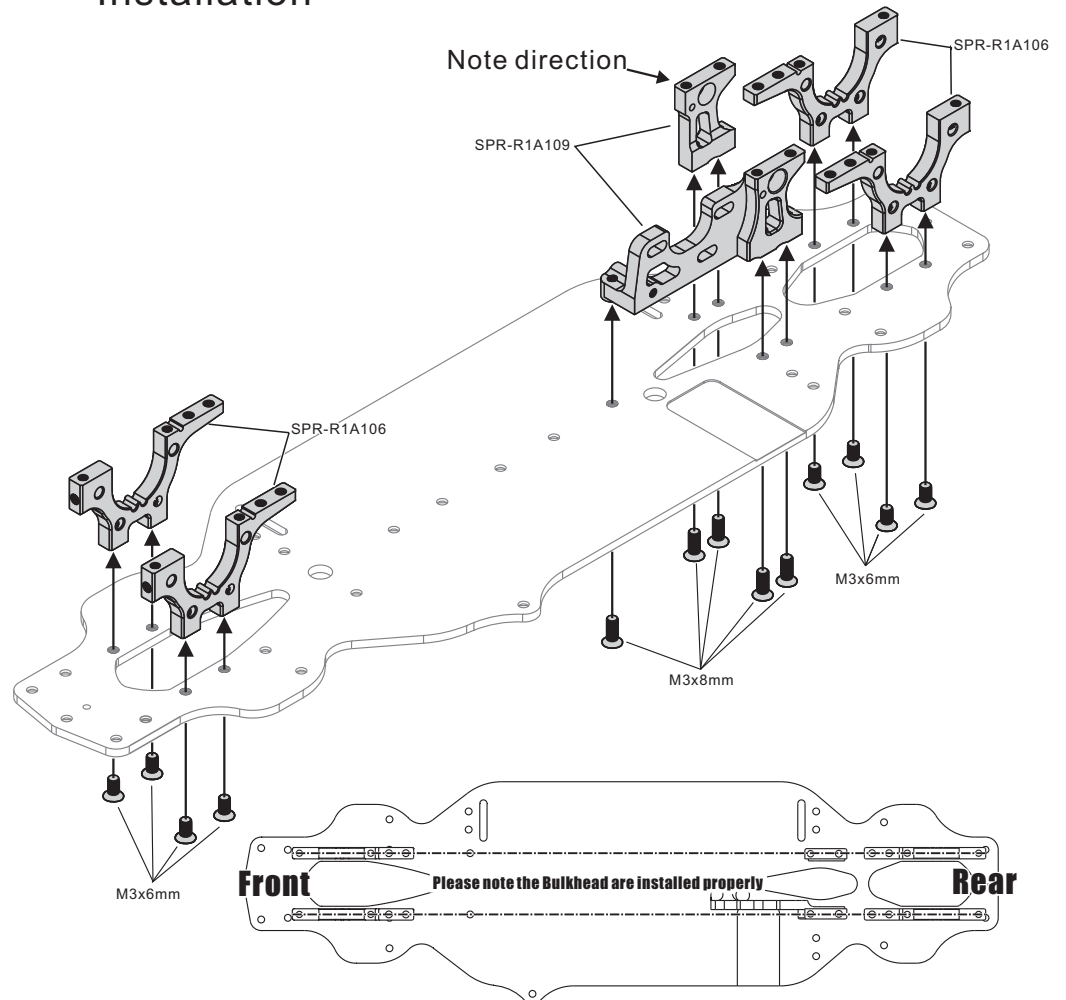


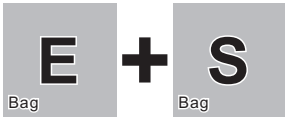
**C** + **S**  
Bag Bag

x5  
Flat Head Screw **M3x8mm**

x8  
Flat Head Screw **M3x6mm**

## 2 Bulkhead Installation

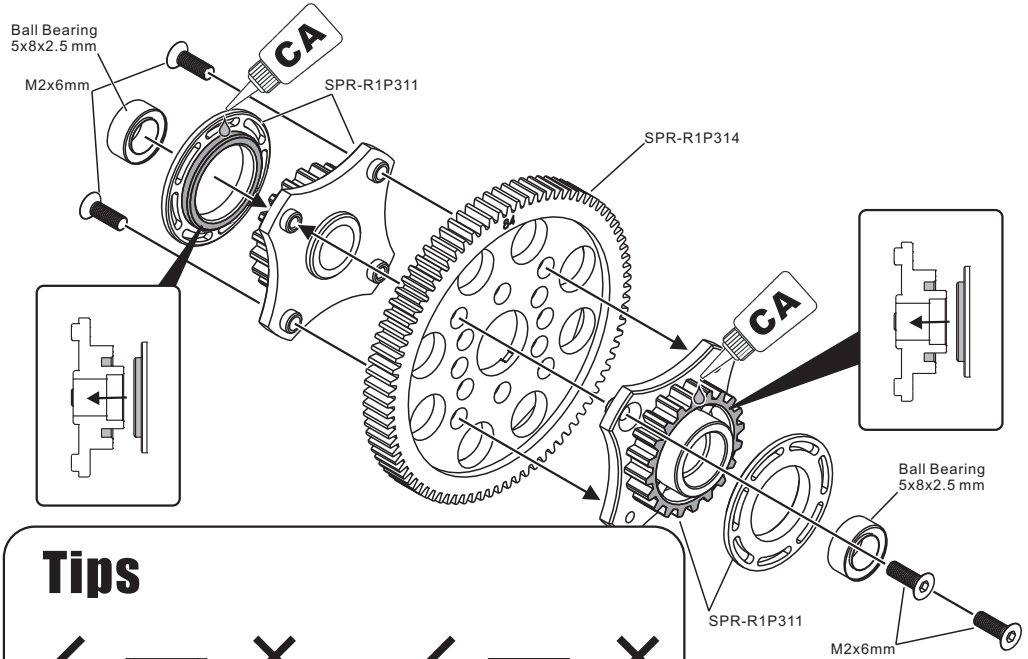




**x4**  
Flat Head Screw **M2x6mm**

**x2**  
Ball Bearing **5x8x2.5mm**

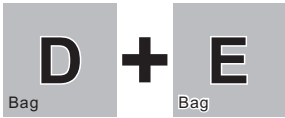
### 3 Spur Gear Assembly



#### Tips



Screws should be tightened properly as shown.



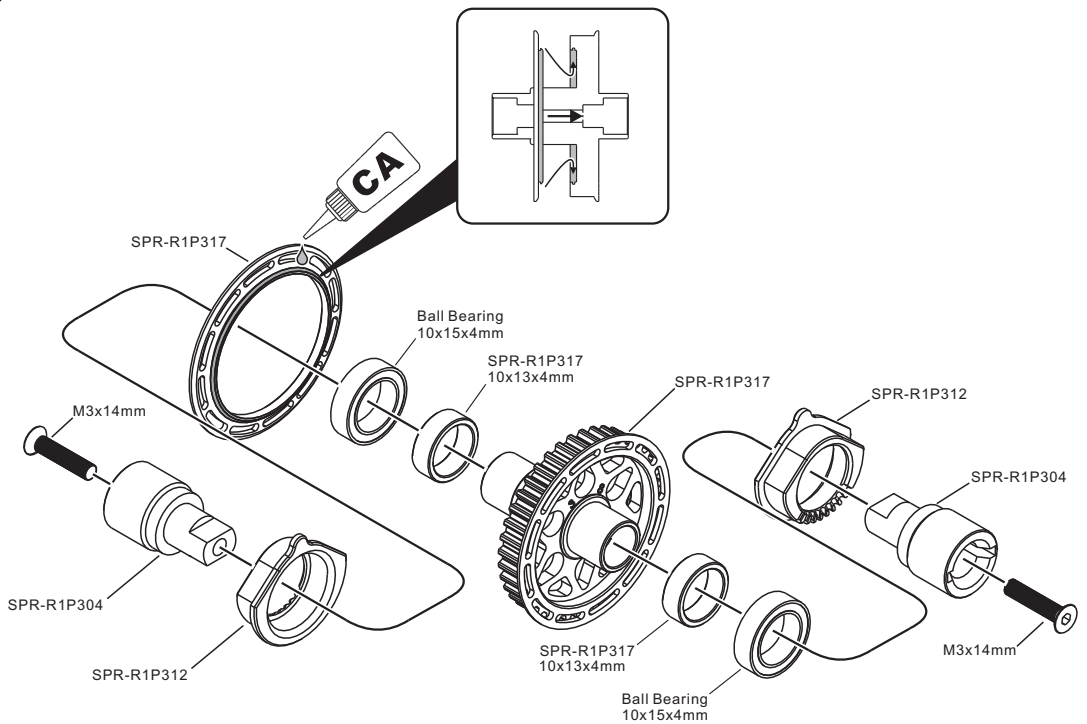
**x2**  
Front Spool Outdrive Adapters

**x2**  
Flat Head Screw **M3x14mm**

**x2**  
Ball Bearing **10x15x4mm**

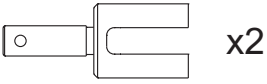
**x2**  
Plastic Collar **10x13x4mm**

### 4 Front Spool Assembly



**D** + **R**  
Bag Bag

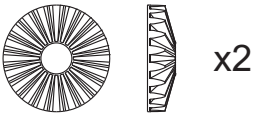
**T**  
Bag



Gear Diff. Joint



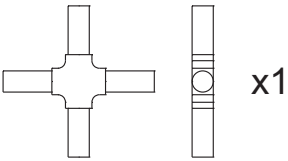
Flat Head Screw M2.6x11mm



Bevel Gear



Satellite Gear



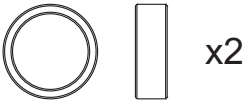
Gear Axial



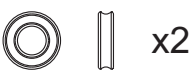
Ball Bearing 10x15x4mm



Ball Bearing 4x7x2.5mm



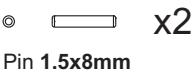
Plastic Collar 10x13x4mm



X-Ring



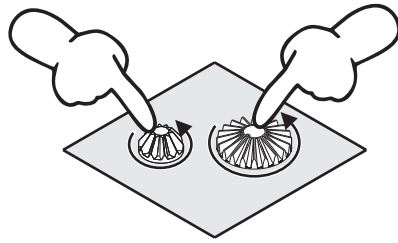
Shim 4x13x0.2mm



Pin 1.5x8mm

**5**

# Gear Differential Assembly



Recommend to give the gear a polish before assemble

**1**

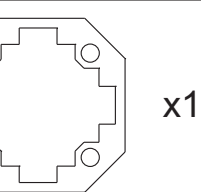
**2**

**3**

**5**

**6**

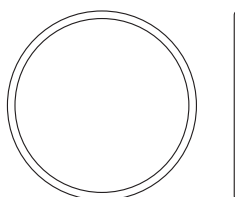
**4**



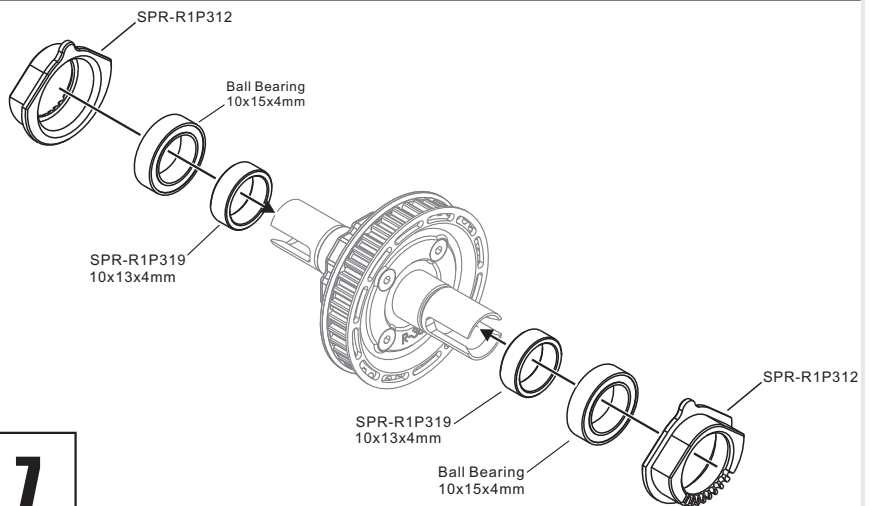
Silicone Oil #1000

Suggested oil level

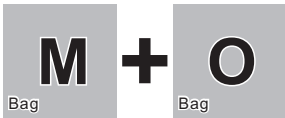
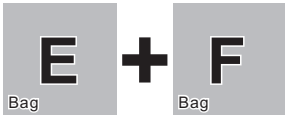
Gasket



O-ring 23x1mm

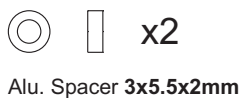
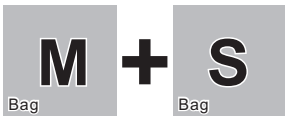
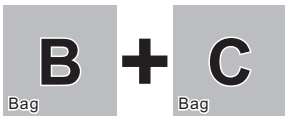
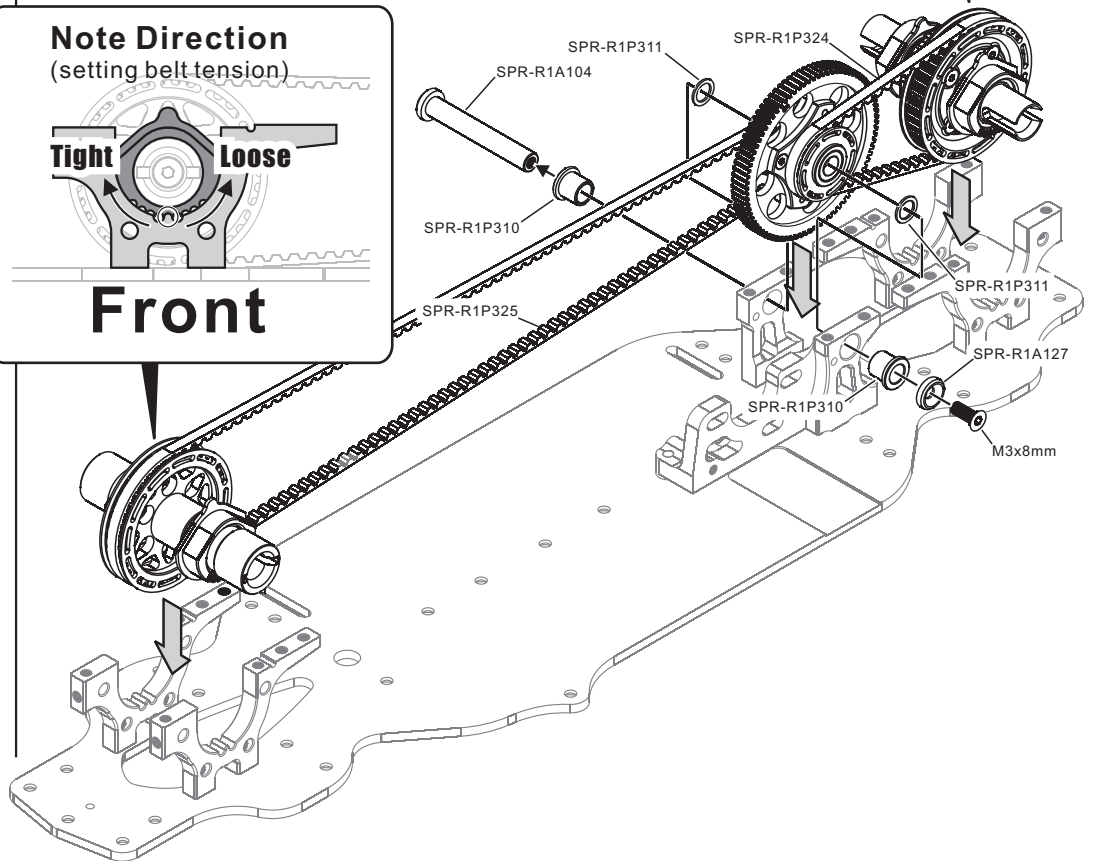
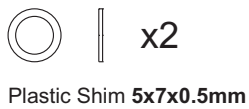
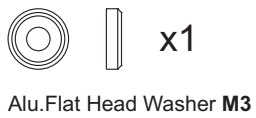
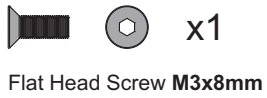
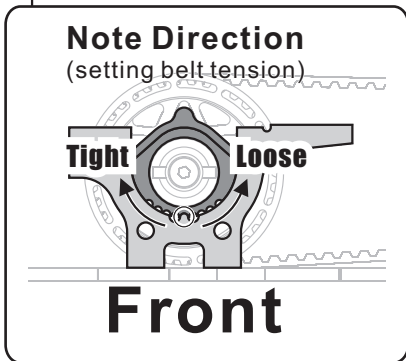
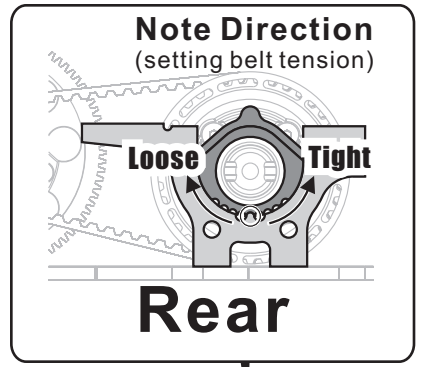


**7**



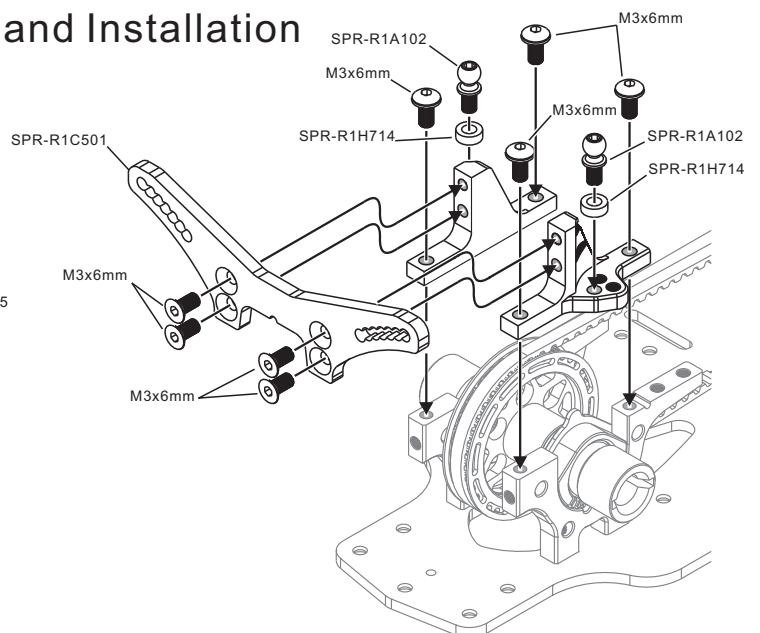
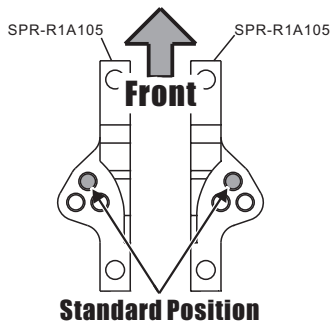
6

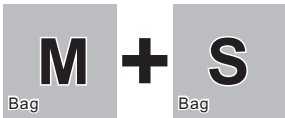
## Drive Train Installation



7

## Front Shock Mount Assembly and Installation





Button Head Screw **M3x6mm**



Flat Head Screw **M3x6mm**



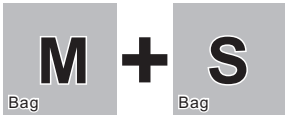
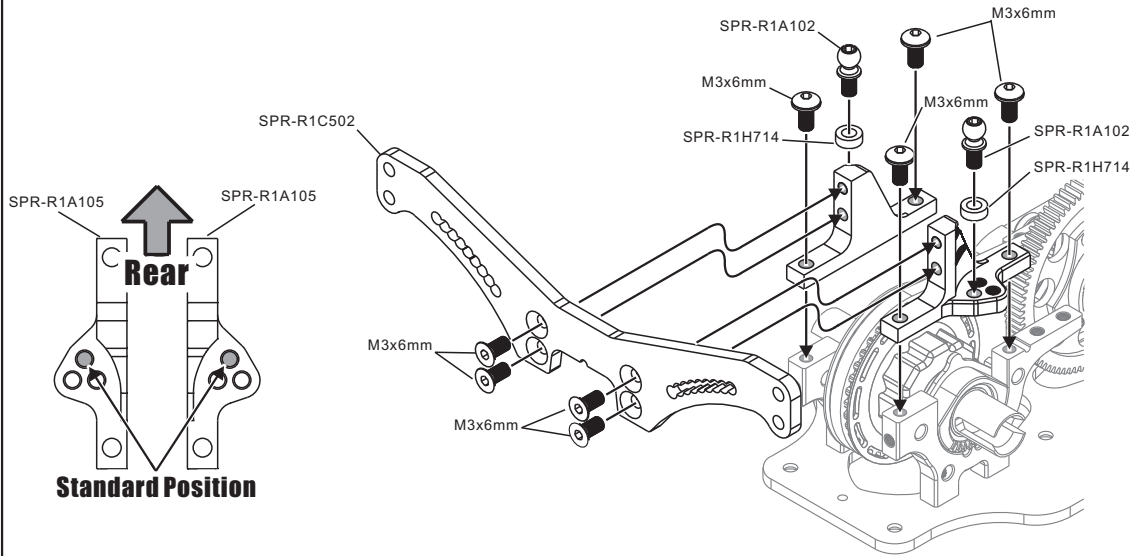
Alu. Ball Stud **4.7x5mm** (2mm Socket)



Alu. Spacer **3x5.5x2mm**

**8**

## Rear Shock Mount Assembly and Installation



Button Head Screw **M3x6mm**



Flat Head Screw **M3x6mm**



Ball Bearing **3x6x2.5mm**



Ball Bearing **5x8x2.5mm** (Flanged)



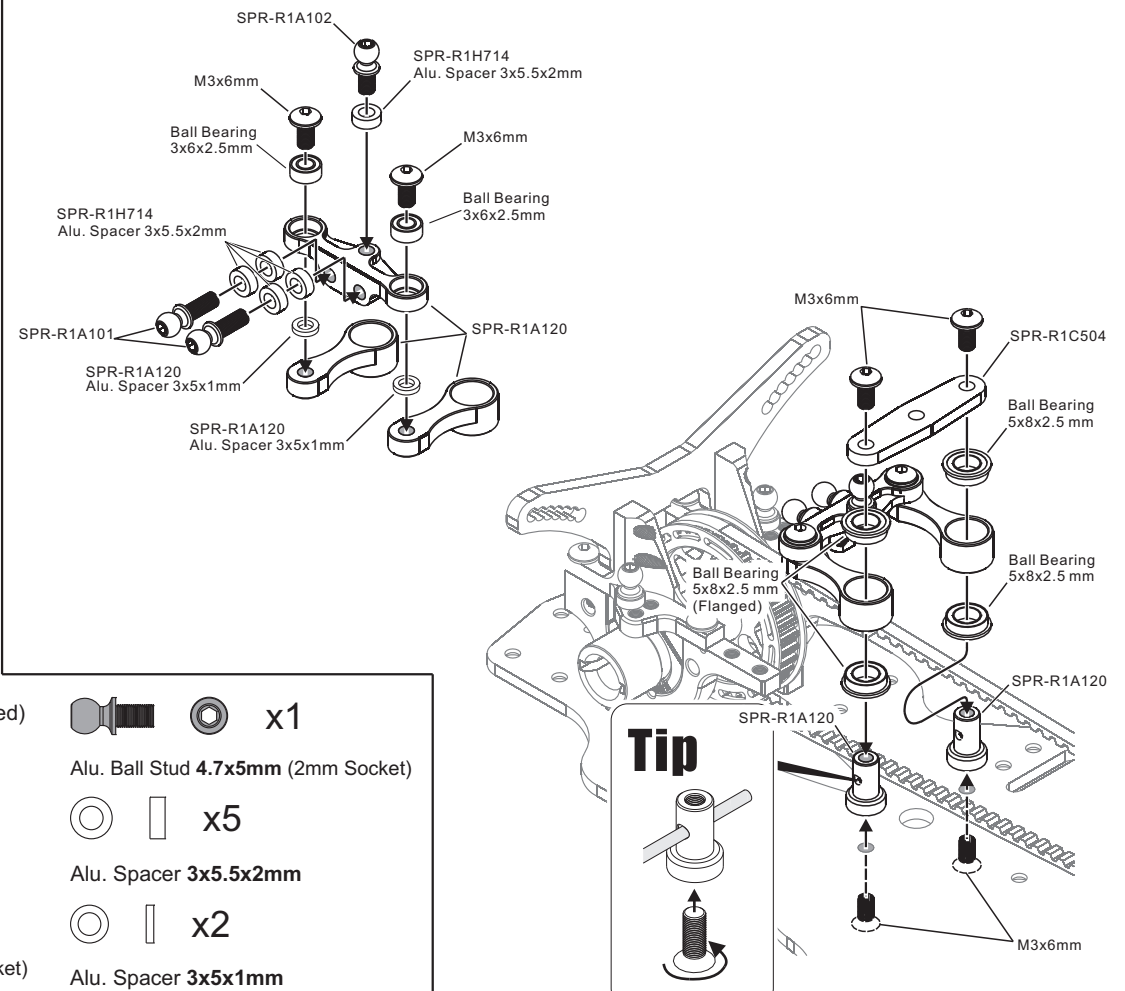
Steering Post



Alu. Ball Stud **4.7x8mm** (2mm Socket)

**9**

## Steering Crank Assembly





Button Head Screw **M3x6mm**



Button Head Screw **M3x12mm**



Ball Bearing **3x6x2.5mm (Flanged)**



Lock Nut **M3**



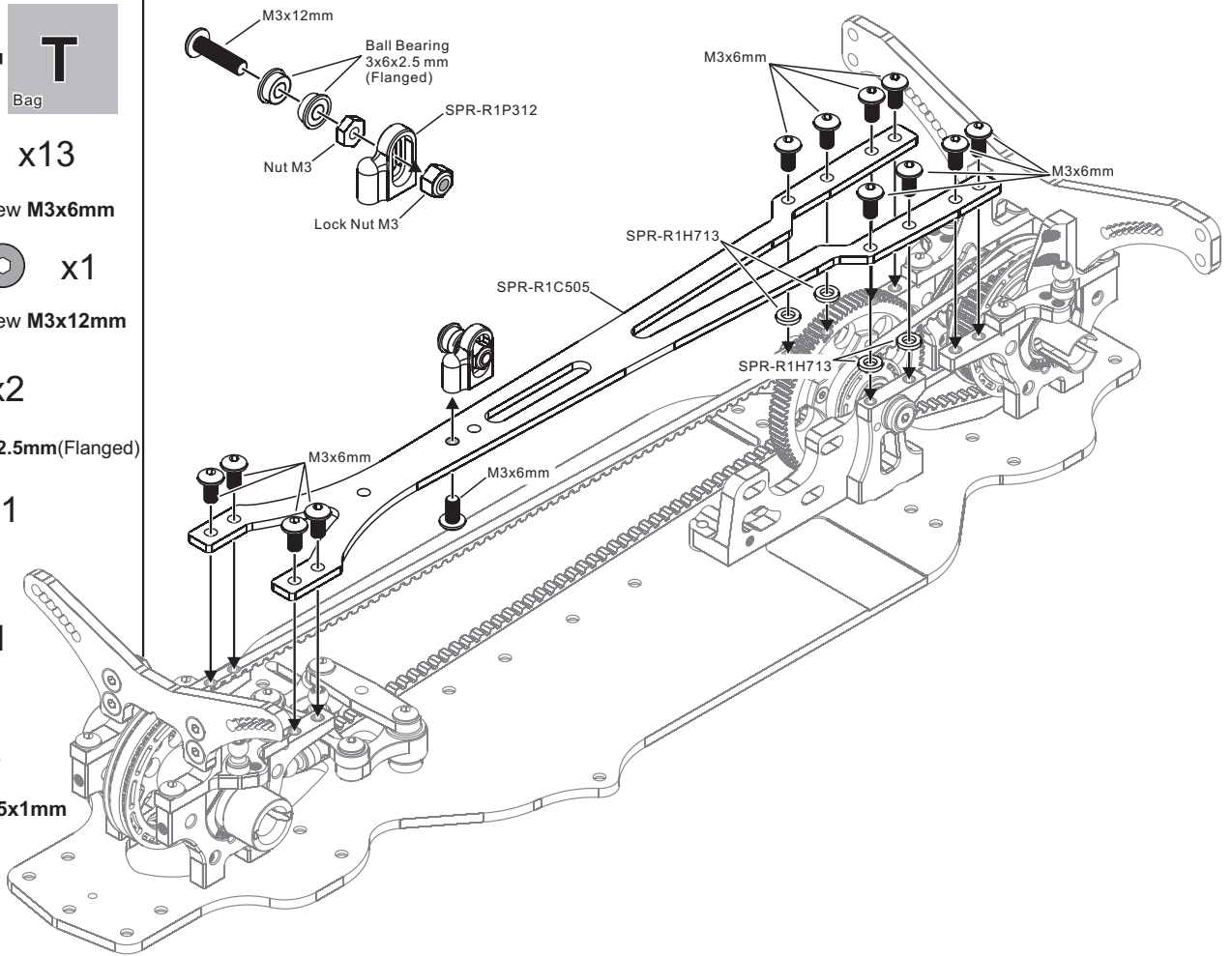
Nut **M3**



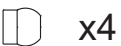
Alu. Spacer **3x5.5x1mm**

**10**

## Upper Deck Installation



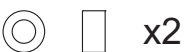
Set Screw **M4x8mm**



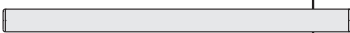
Pivot Ball **3x5mm**



Plastic Spacer **3x5x2mm**



Plastic Spacer **3x5x3mm**

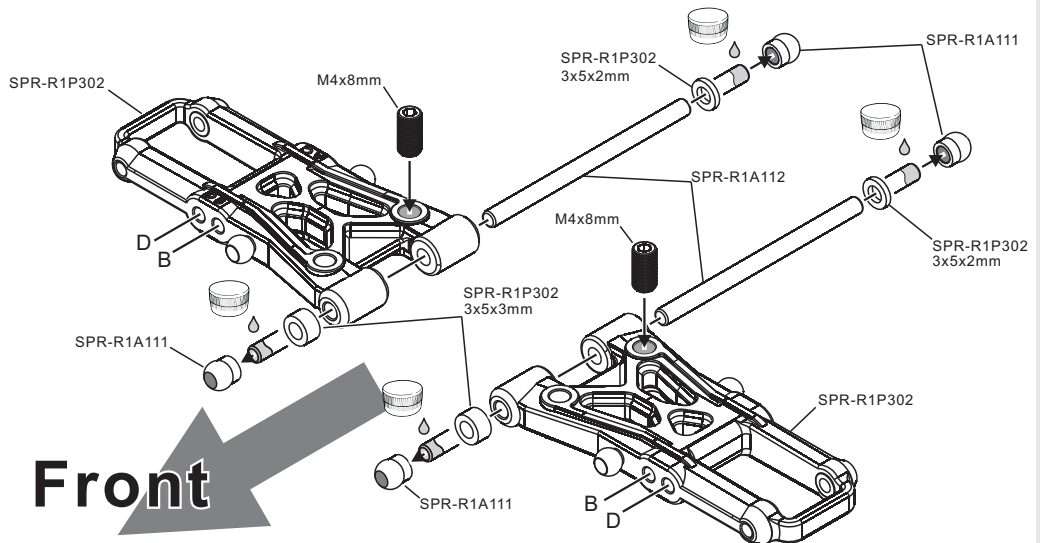


**x2**

Pivot Pin **3x46mm**

**11**

## Front Suspension Arm Assembly



**Front**



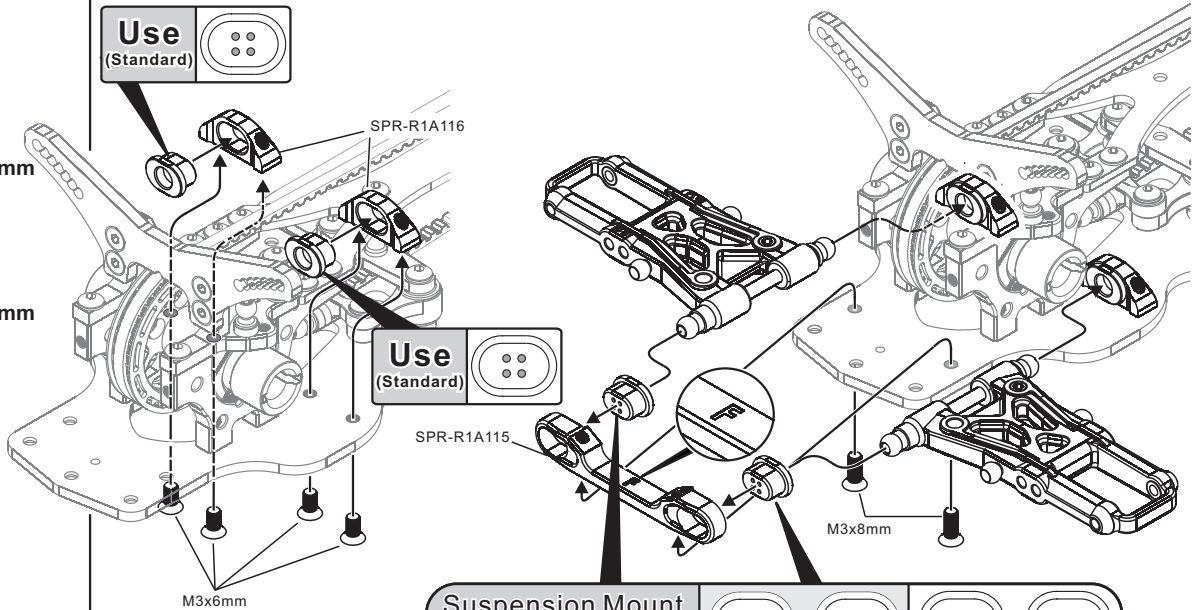
**J** + **K**  
Bag Bag









**S**  
Bag

  x4  
Flat Head Screw M3x6mm

  x2  
Flat Head Screw M3x8mm

## 12 Front Suspension Installation




Suspension Mount Adapter (SPR-R1P307)				
Toe Angle	<b>0°</b> (Standard)		<b>Out 0.5°</b>	
Suspension Mount Adapter (SPR-R1P307)				
Toe Angle	<b>Out 1.0°</b>		<b>Out 1.5°</b>	

**H** + **I**  
Bag Bag

**S**  
Bag


  x2  
Set Screw M4x8mm

 x4


Pivot Ball 3x5mm

  x2

Plastic Spacer 3x5x2mm

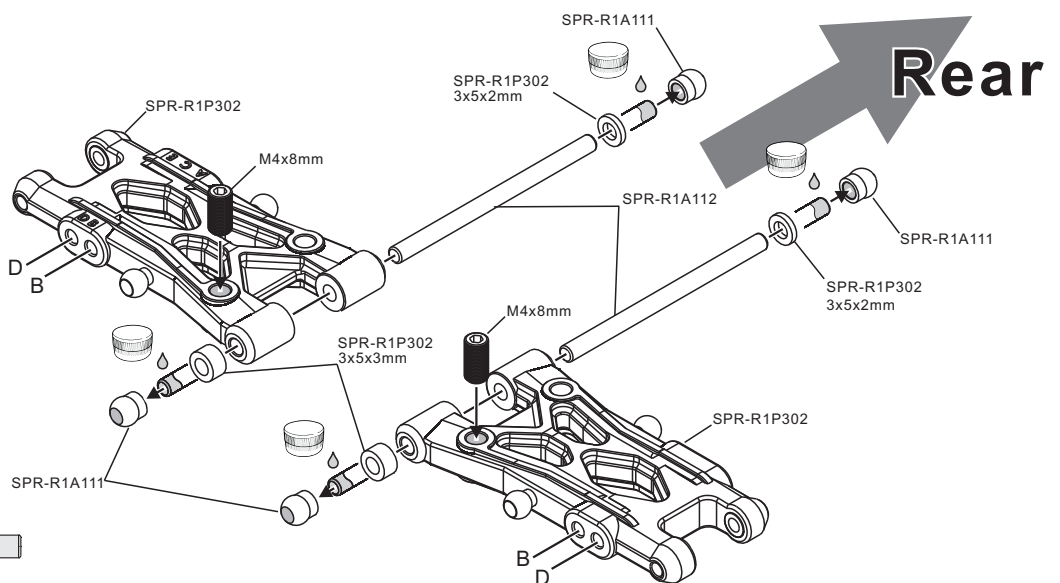
  x2

Plastic Spacer 3x5x3mm

 x2

Pivot Pin 3x46mm

## 13 Rear Suspension Arm Assembly



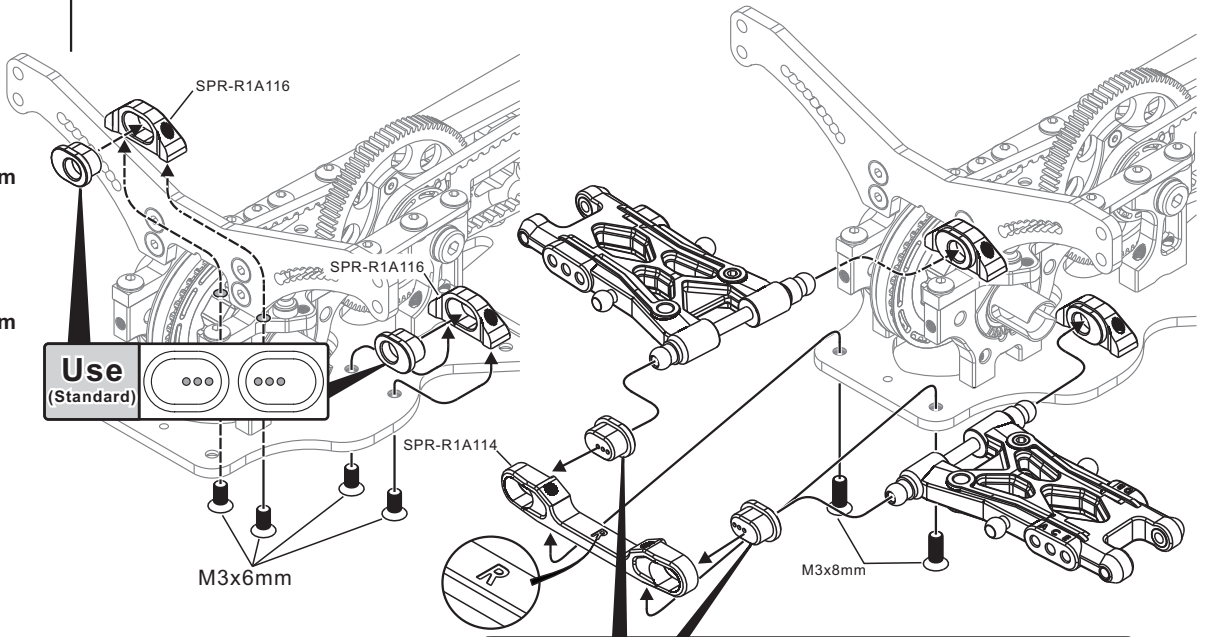
**J** + **K**  
Bag Bag

**S**  
Bag

x4  
Flat Head Screw M3x6mm

x2  
Flat Head Screw M3x8mm

# 14 Rear Suspension Installation



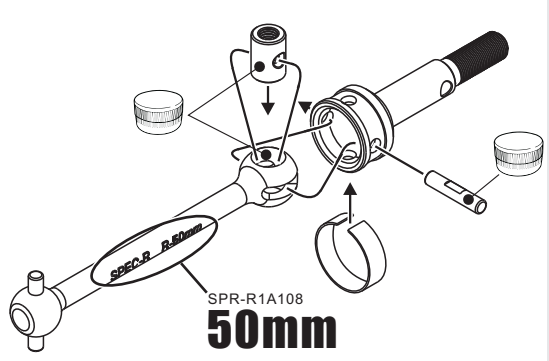
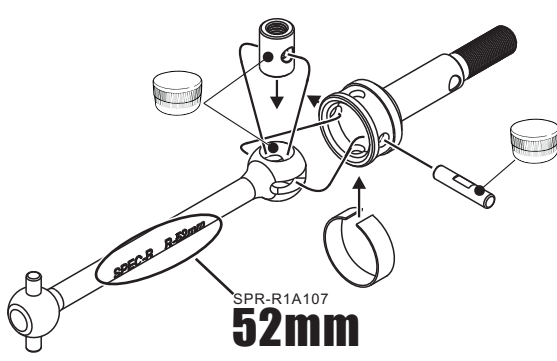
Suspension Mount Adapter (SPR-R1P307)				
Toe Angle	<b>In 3.5°</b>	<b>In 3.0°</b> (Standard)		
Suspension Mount Adapter (SPR-R1P307)				
Toe Angle	<b>In 2.5°</b>	<b>In 2.0°</b>		

**L**  
Bag

# 15 Drive Shaft Assembly (50 ,52mm)

**2x** Make 2

**2x** Make 2

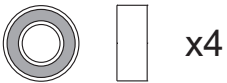




Button Head Screw **M3x8mm**



Cap Head Screw **M2x5mm**



Ball Bearing **5x10x4mm**



Ball Stud **4.7x9mm** (2mm Socket)



Alu. Ball Stud **4.7x5mm** (2mm Socket)



Steering Block Bushing



Plastic Spacer **5x7x1.5mm**



Set Screw **M3x4mm**



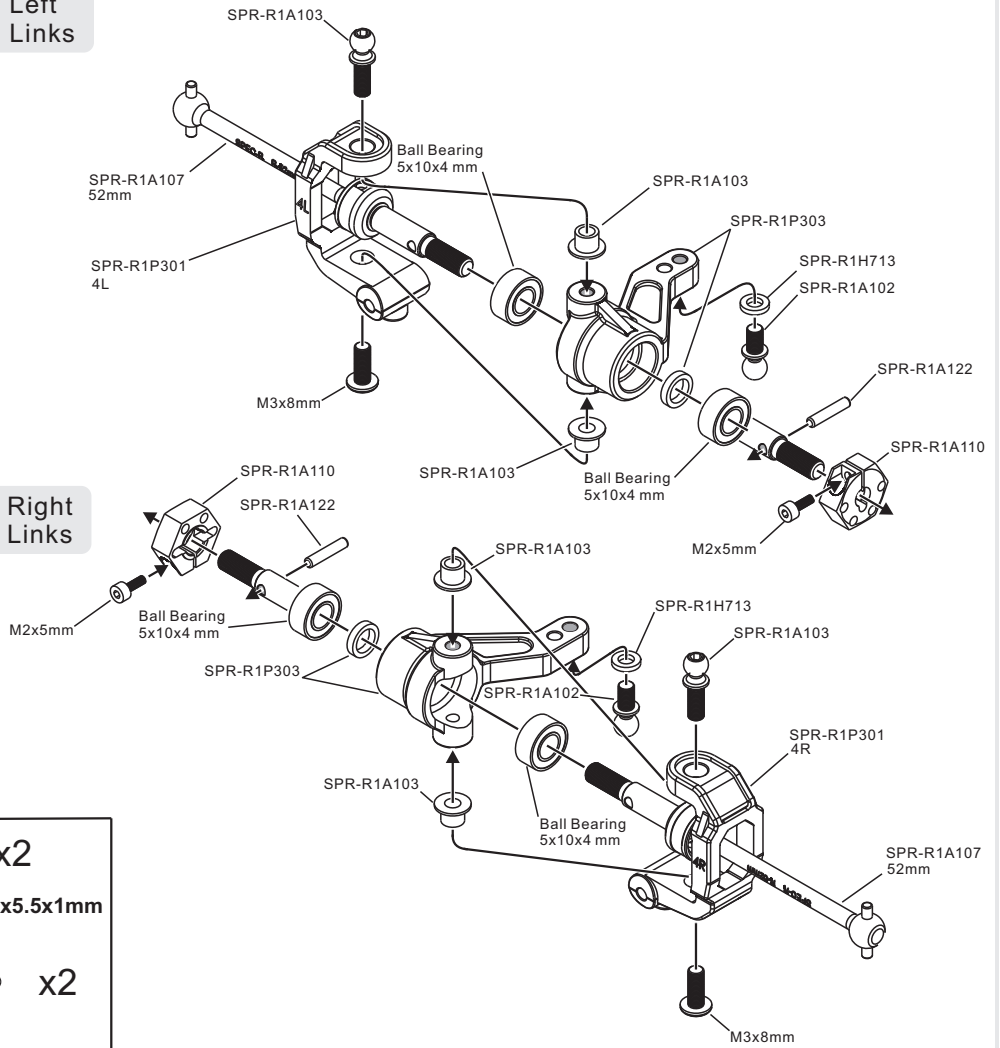
Outer Pivot Pin **2.5x24mm**

**16**

## Front Hub Carrier Assembly

**L** Left Links

**R** Right Links

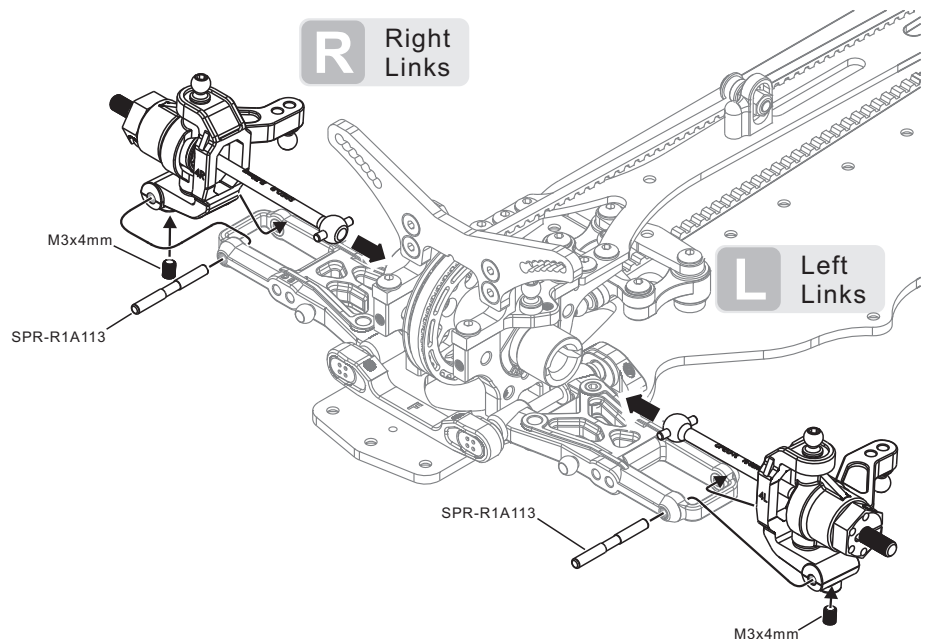


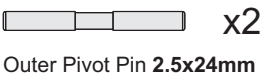
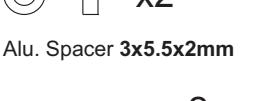
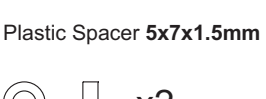
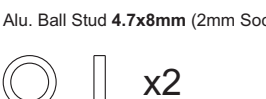
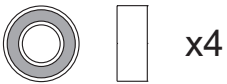
**17**

## Front Suspension Installation

**R** Right Links

**L** Left Links

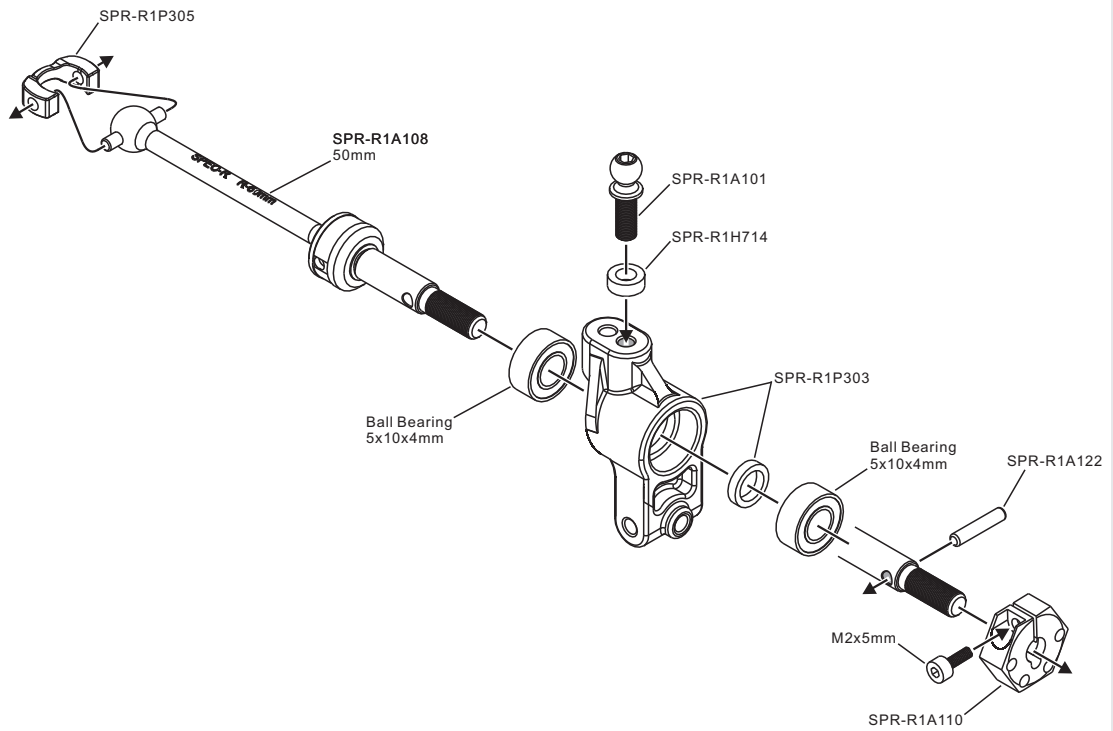




18

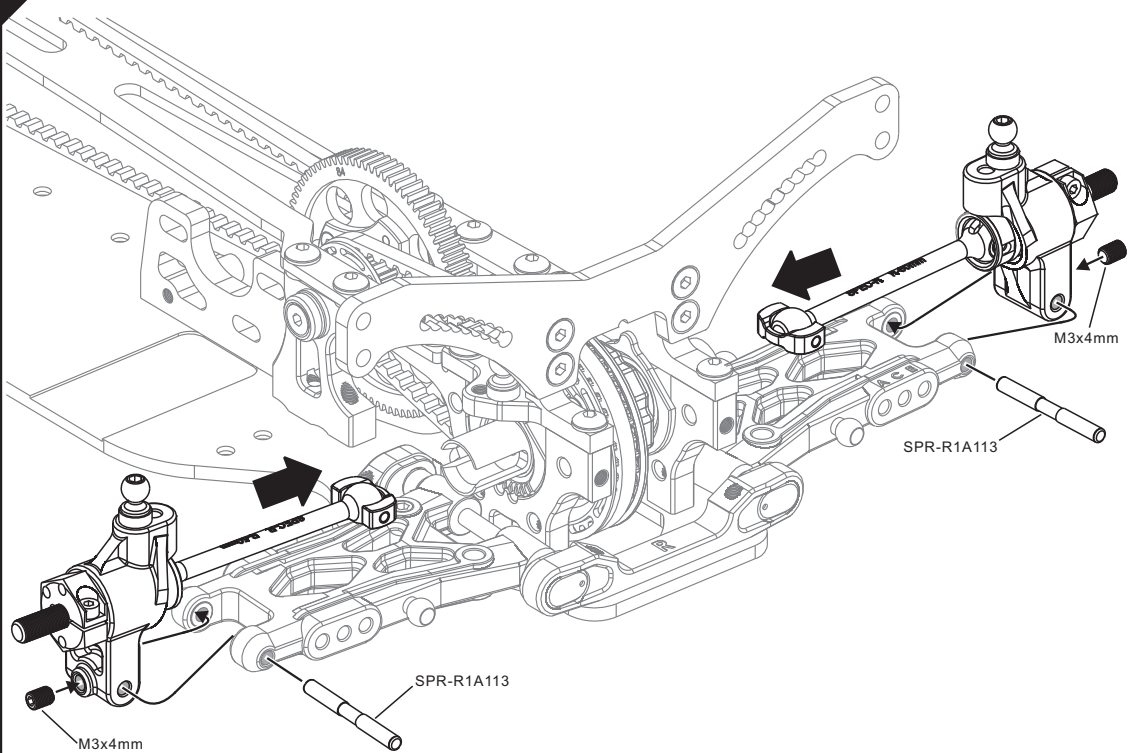
# Rear Carrier Assembly

2x Make 2



19

# Rear Suspension Installation



**K** + **M**  
Bag Bag



End Cap 4.7x20mm



x2  
Alu. Tumbuckle M3x40mm

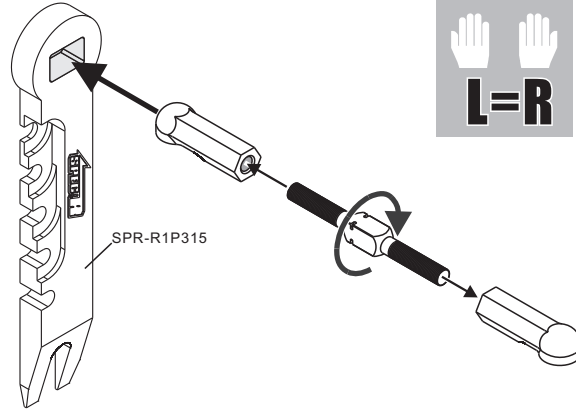


x4  
Alu. Tumbuckle M3x35mm

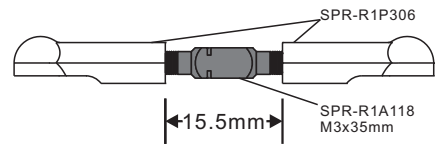


x1  
Alu. Tumbuckle M3x20mm

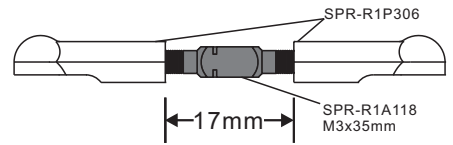
## 20 Upper Arm and Steering Rod Assembly



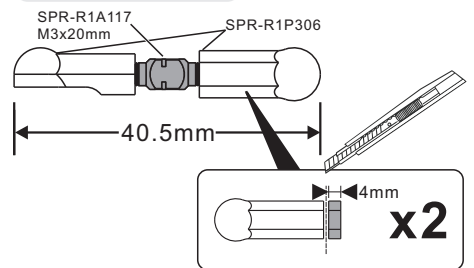
### A Front Rod x2



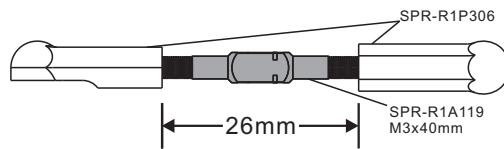
### B Rear Rod x2



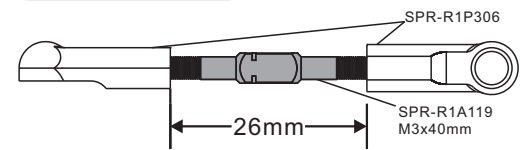
### C Steering Rod-1 x1



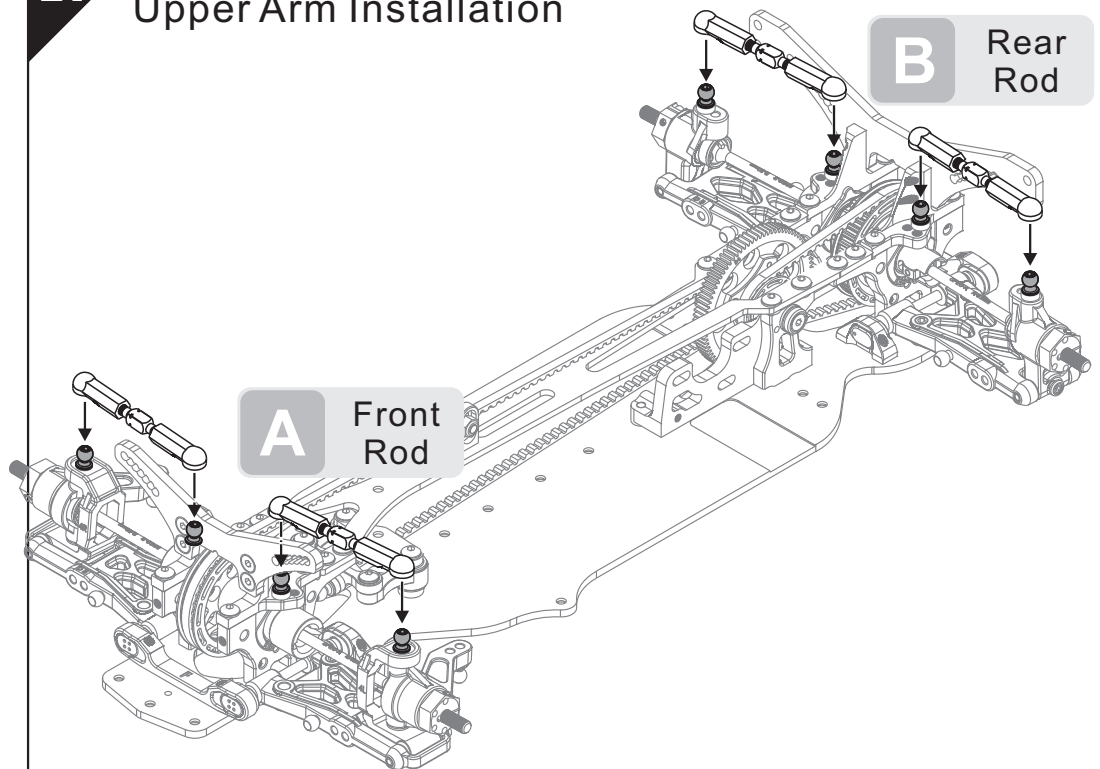
### E Steering Rod-L x1



### D Steering Rod-R x1

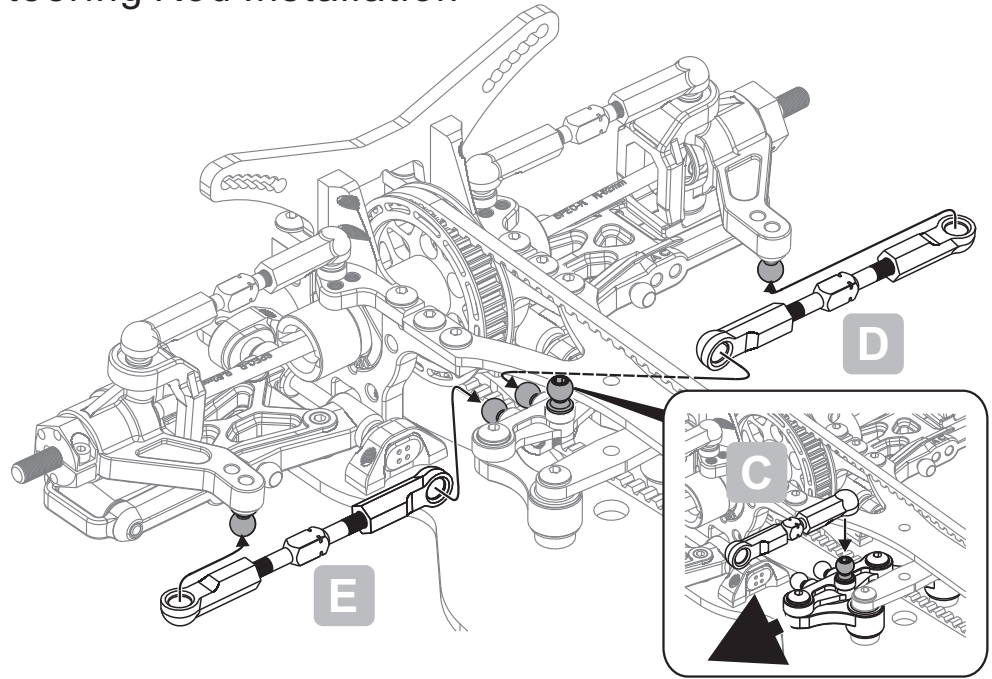


## 21 Upper Arm Installation

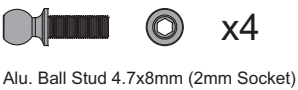
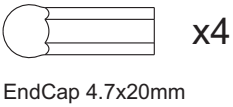


# 22

## Steering Rod Installation



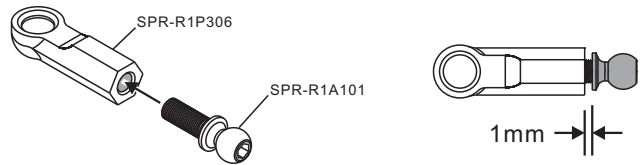
**K** + **M**  
Bag Bag



# 23

## Sway Bar Linkage Assembly

**4x** Make 4



**O** + **P**  
Bag Bag

**M** + **Q**  
Bag Bag

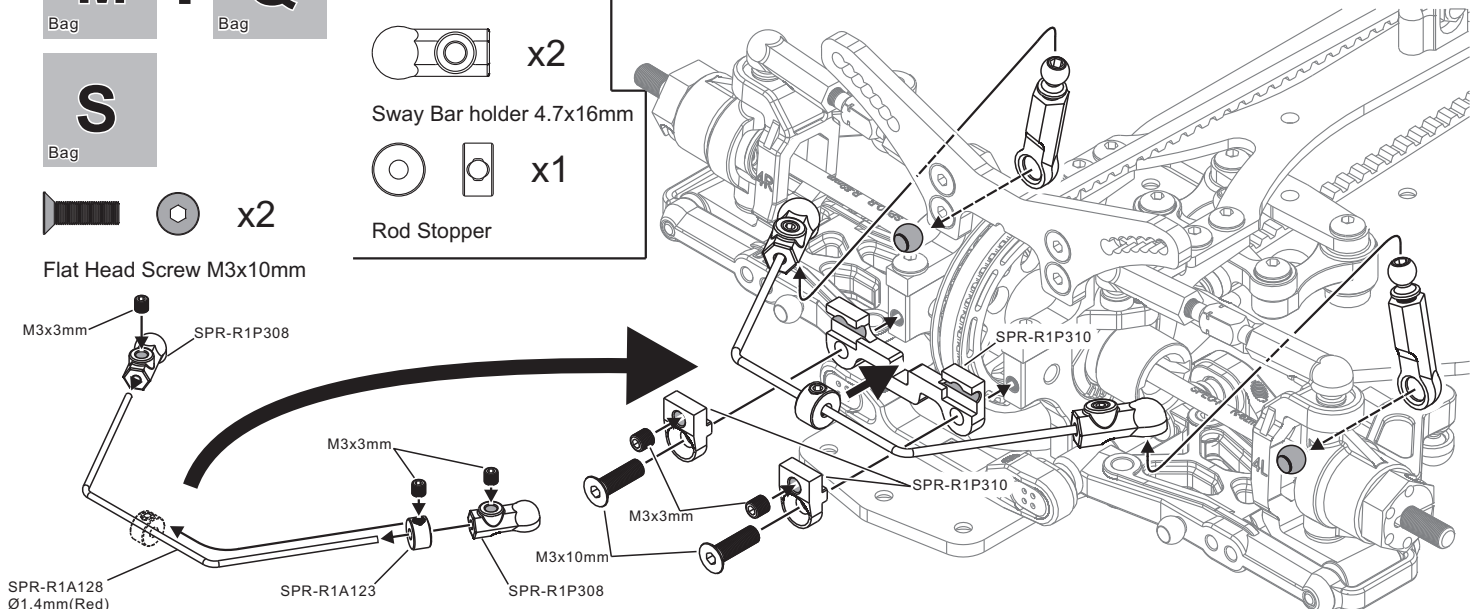
**S**  
Bag



# 24

## Front Sway Bar Installation

- ● x5  
Set Screw M3x3mm
- x2  
Sway Bar holder 4.7x16mm
- □ x1  
Rod Stopper

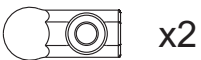




Flat Head Screw M3x10mm



Set Screw M3x3mm

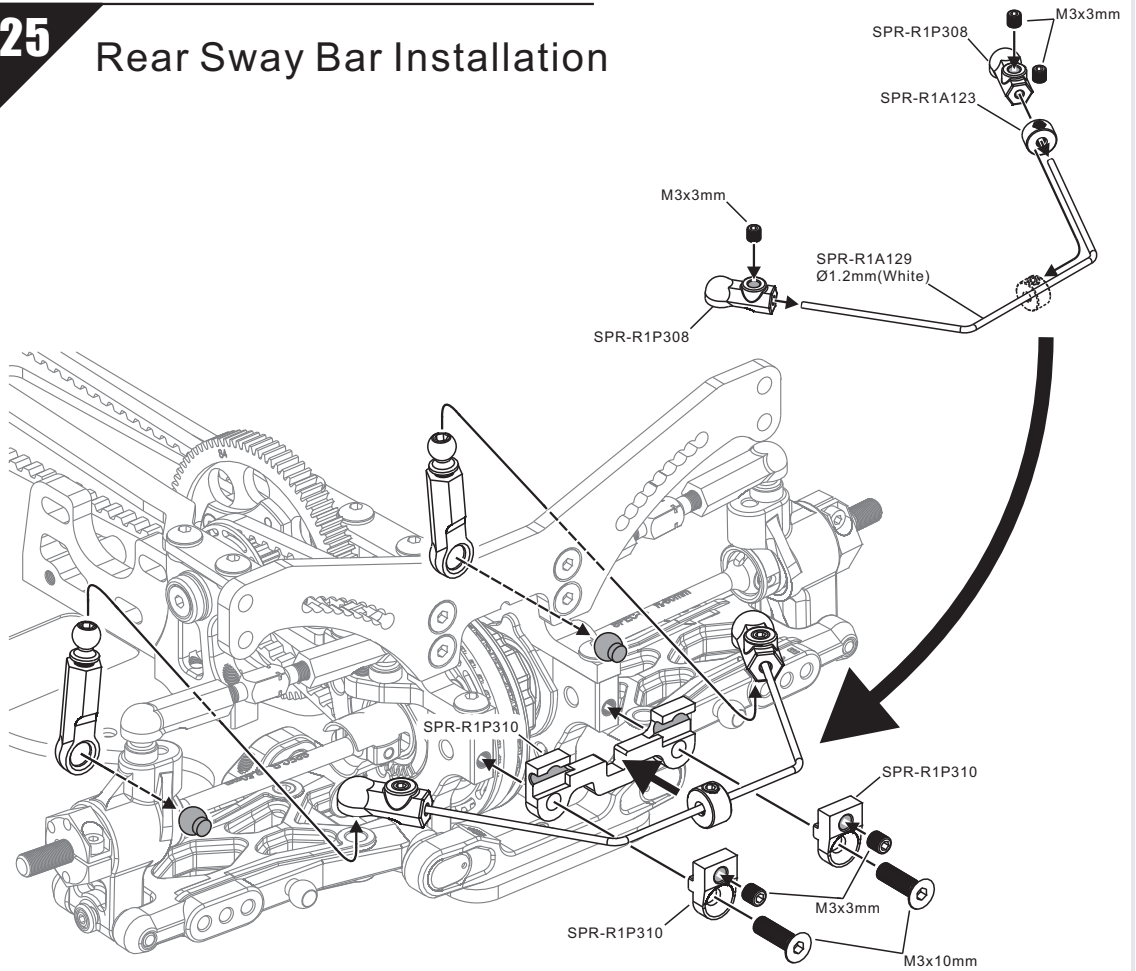


Sway Bar holder 4.7x16mm



Rod Stopper

## 25 Rear Sway Bar Installation



Shock Shaft 28mm



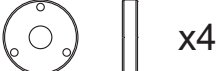
E Clip 2mm



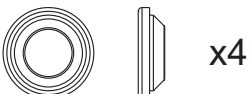
Shaft Guide



O-ring Guide



Shock Piston (Standard)



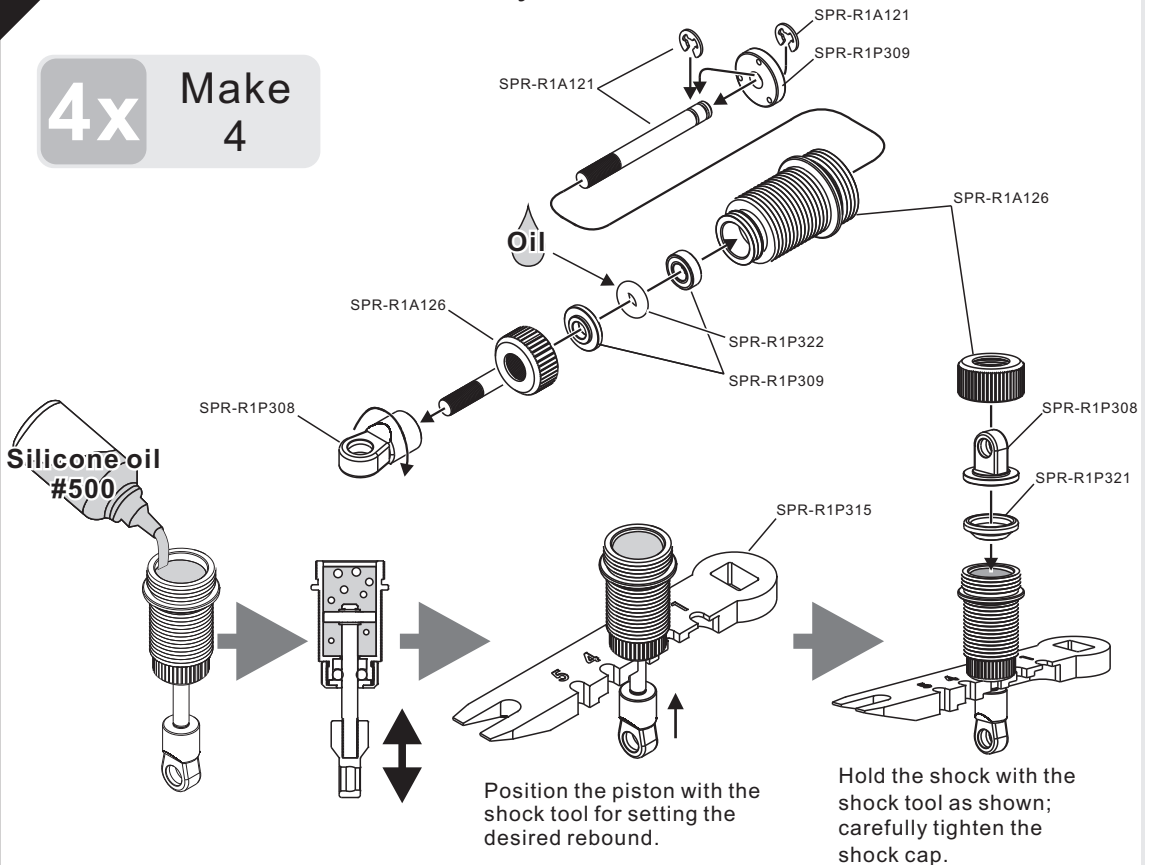
Bladder 12x3.5mm



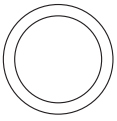
O-ring

## 26 Shock Parts Assembly

**4x** Make 4



**P**  
Bag



O-ring

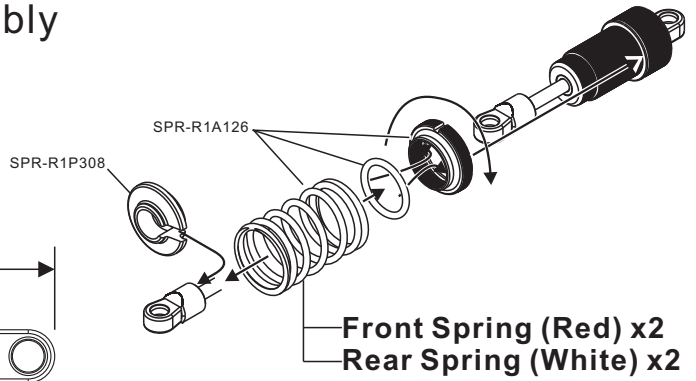
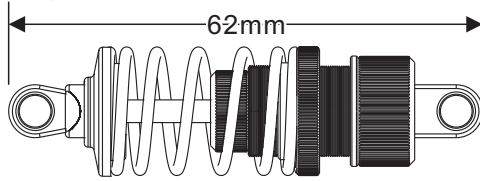


x4

**27**

### Shock Assembly

**4x** Make 4



Front Spring (Red) x2  
Rear Spring (White) x2

**P**  
Bag

**+**

**S**  
Bag



x2

Button Head Screw M3x6



x2

Set Screw M3x8mm



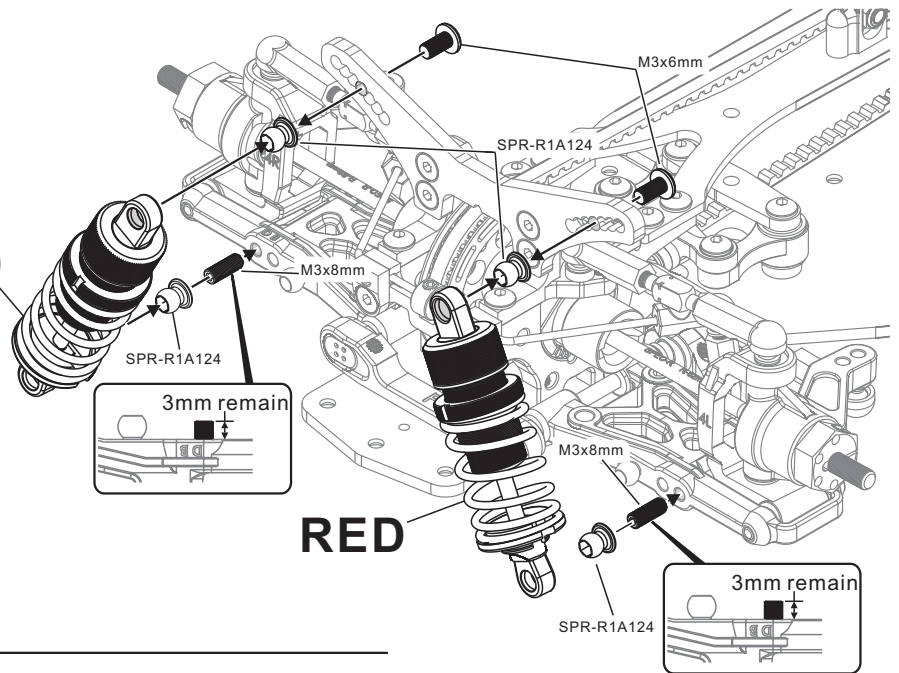
x4

Ball Universal 4.7mm

**28**

### Front Shock Installation

**RED**



**RED**

**P**  
Bag

**+**

**S**  
Bag



x2

Button Head Screw M3x6



x2

Set Screw M3x8mm

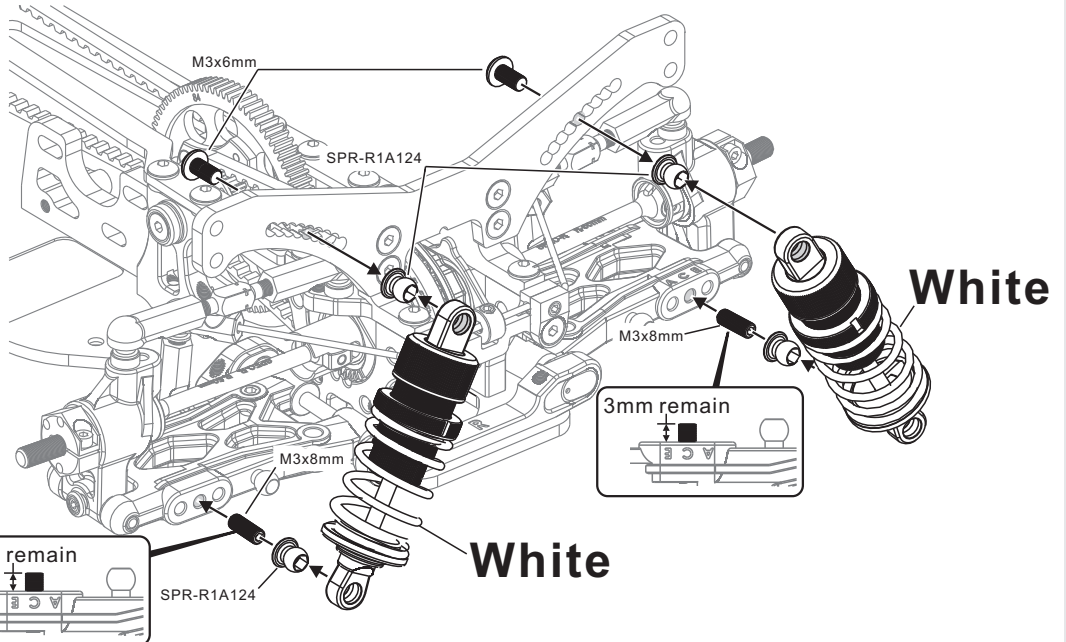


x4

Ball Universal 4.7mm

**29**

### Rear Shock Installation





**White**

**White**



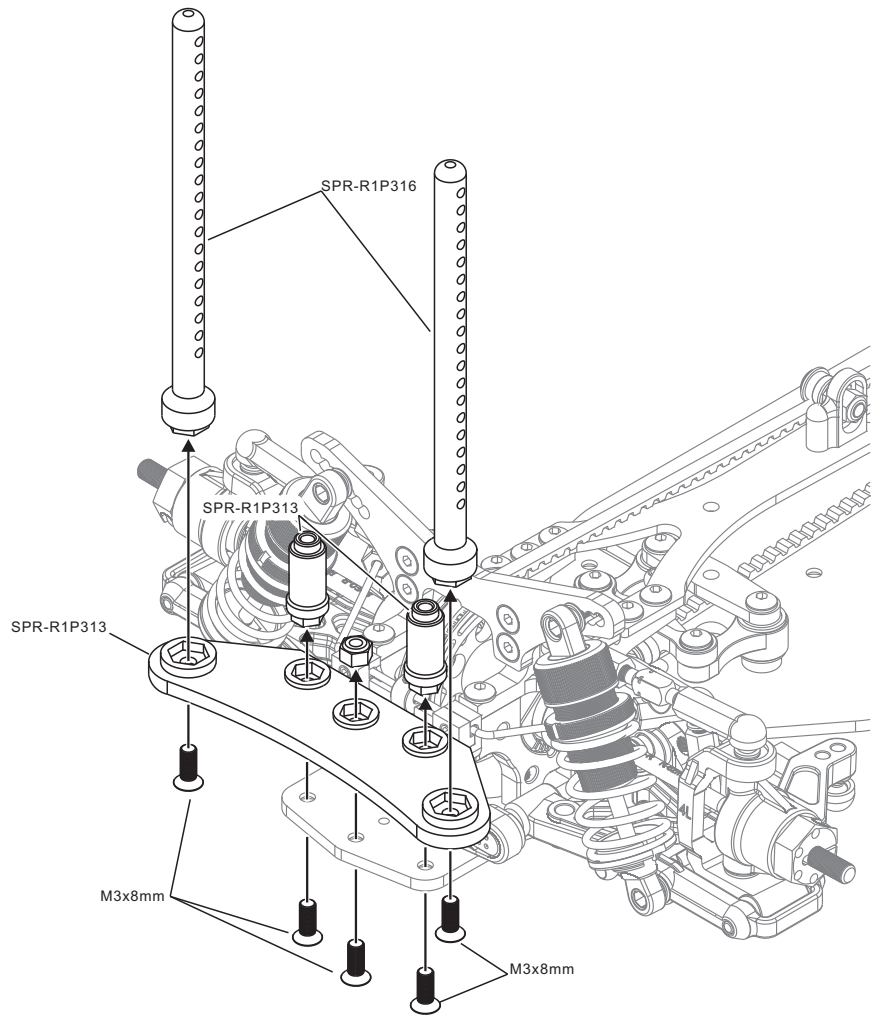
**N** + **S**  
Bag Bag

  x5  
Flat Head Screw M3x8mm



  x1  
Lock Nut M3

**30**

## Front Body Mount Installation

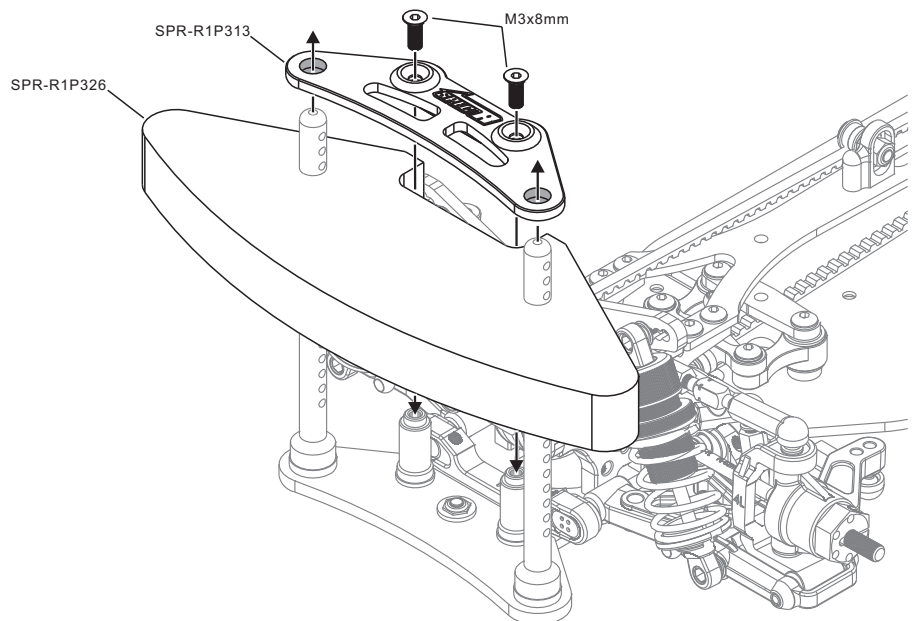


**N** + **S**  
Bag Bag

  x2  
Flat Head Screw M3x8mm

**31**

## Bumper Installation



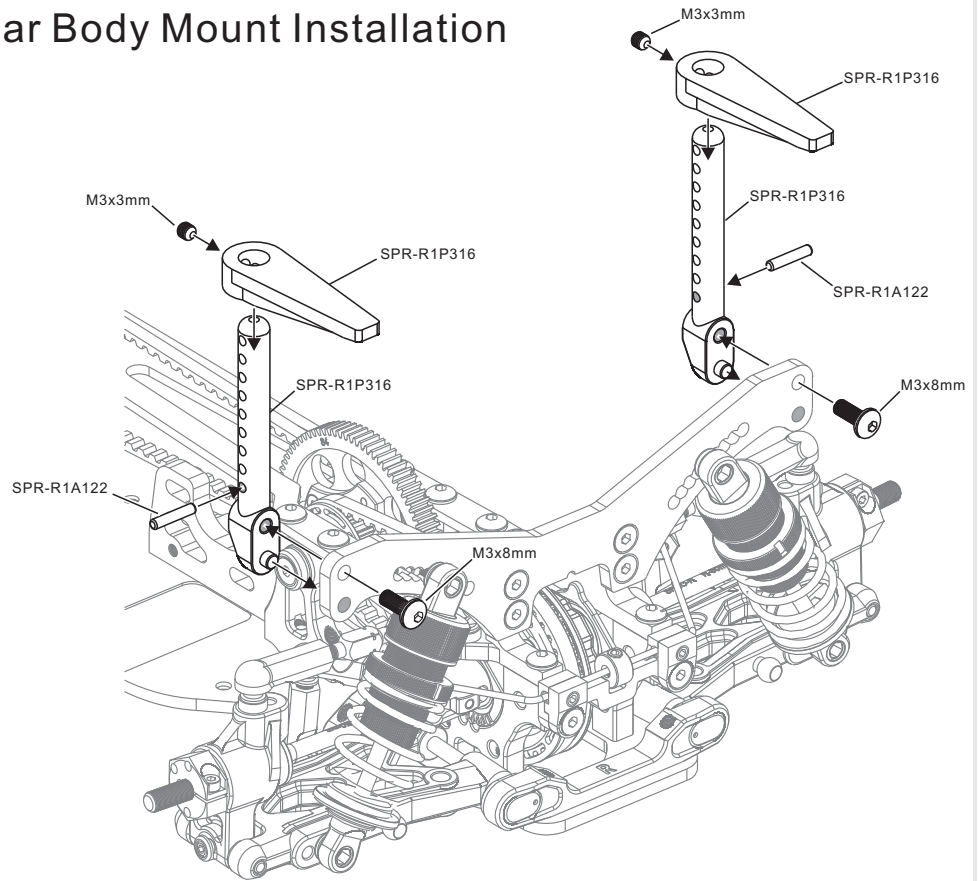


Button Head Screw M3x8mm

Set Screw M3x3mm

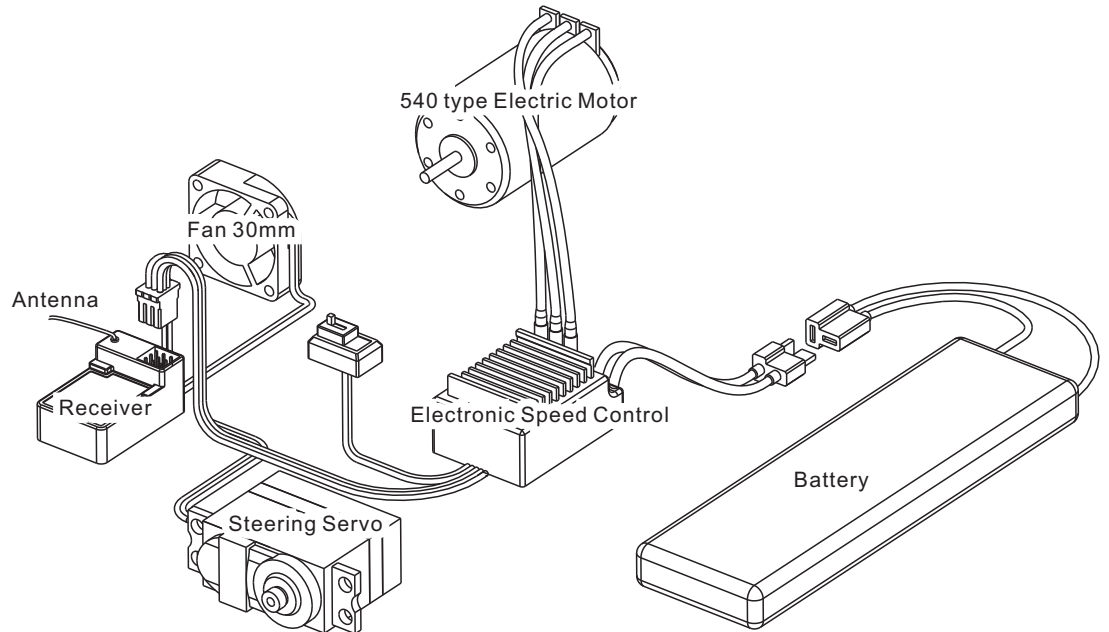
Pin 2x10mm

### 32 Rear Body Mount Installation



### 33 Radio Connections

**!** All electronics shown are not included





Button Head Screw M3x12mm



Flat Head Screw M3x8mm



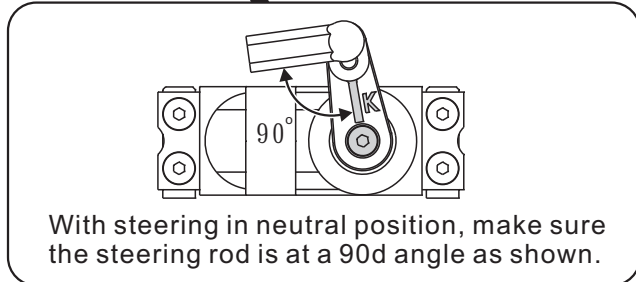
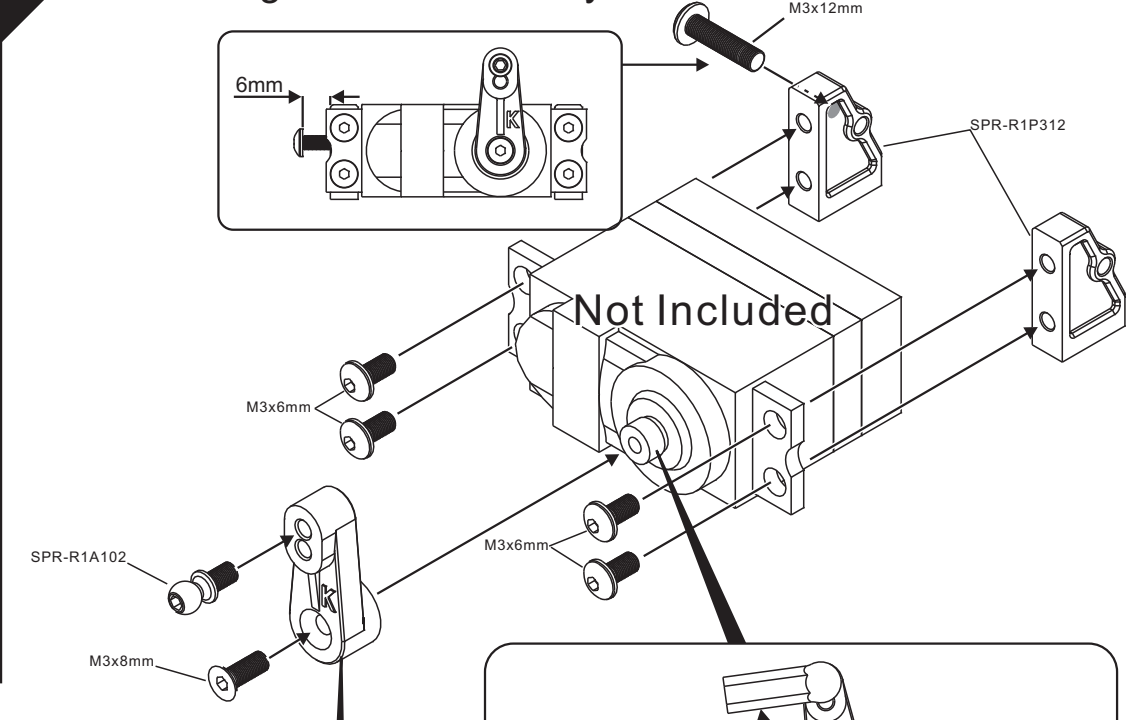
Button Head Screw M3x6



Alu. Ball Stud 4.7x5mm (2mm Socket)

# 34

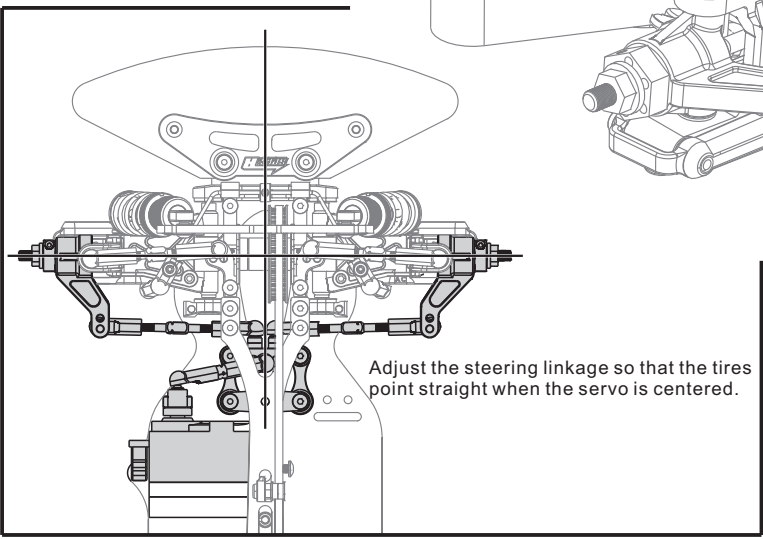
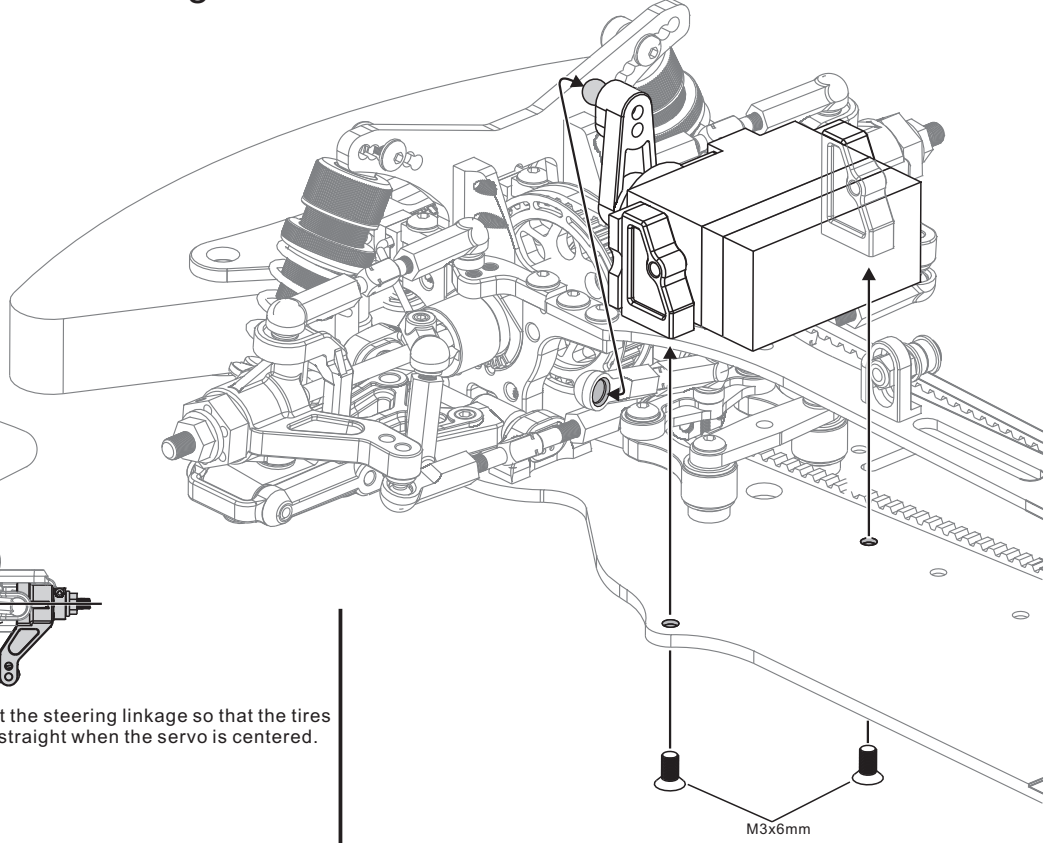
## Steering Servo Assembly

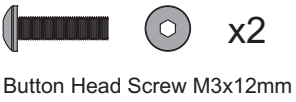


Flat Head Screw M3x6mm

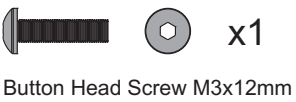
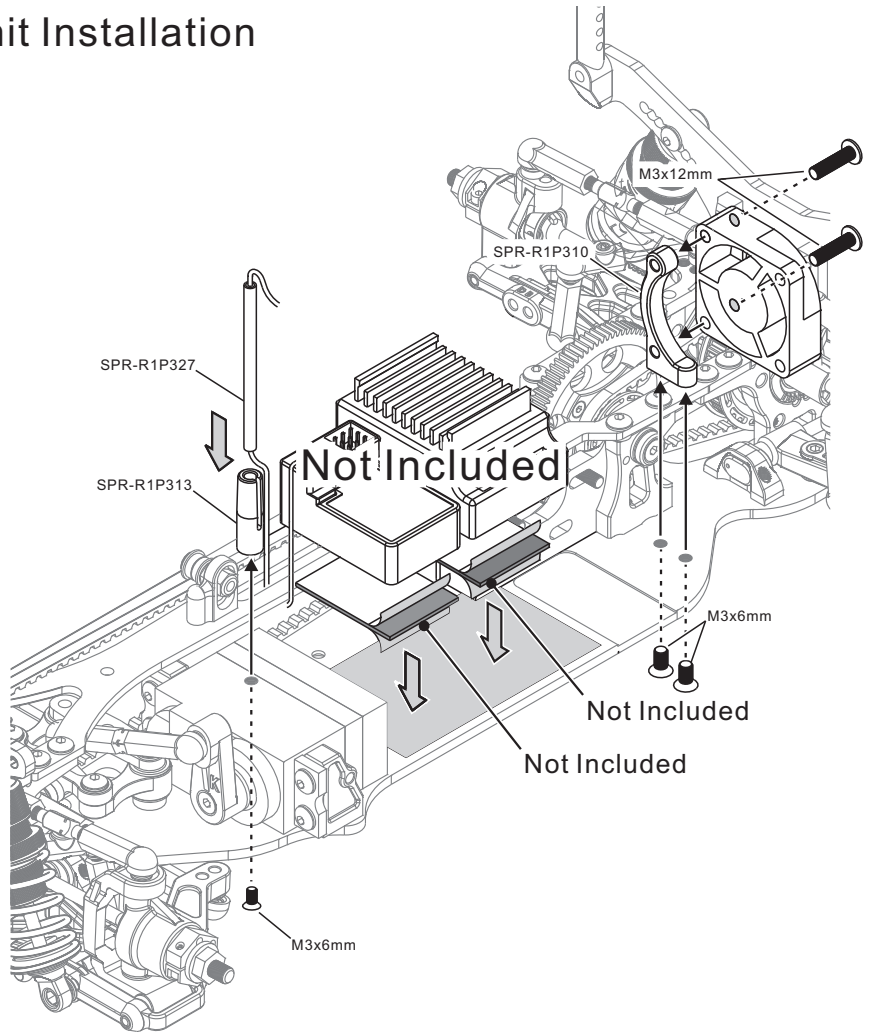
# 35

## Steering Servo Installation

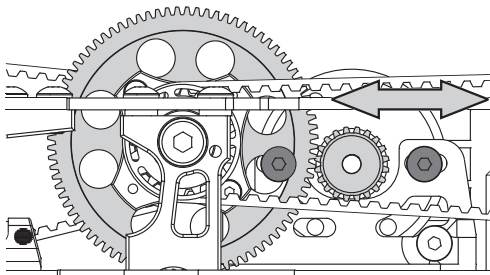
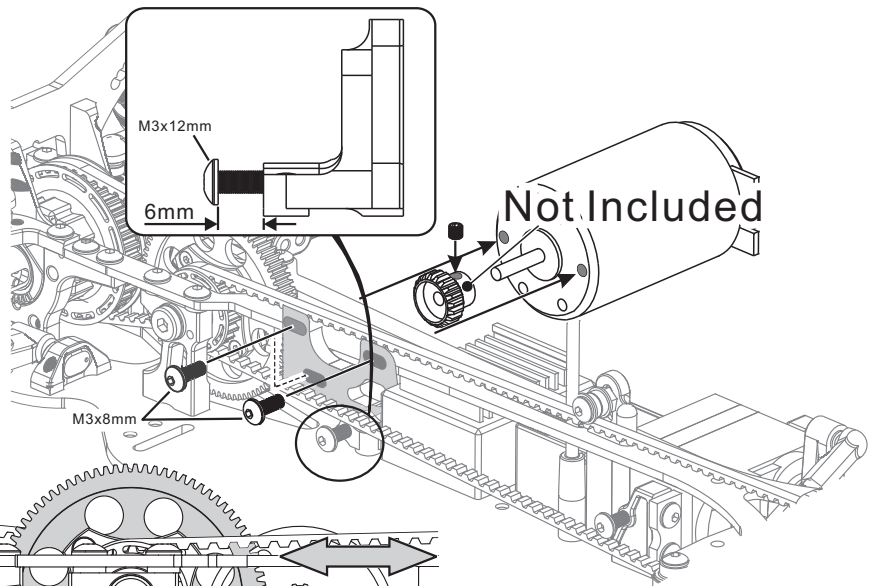




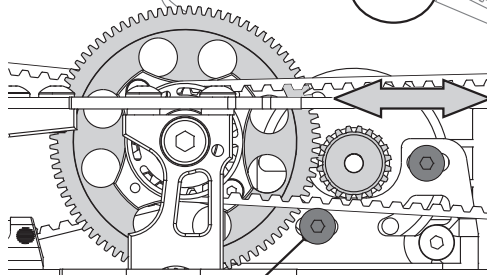
### 36 R/C Unit Installation



### 37 Motor Installation



Adjust motor position for smooth gear mesh.

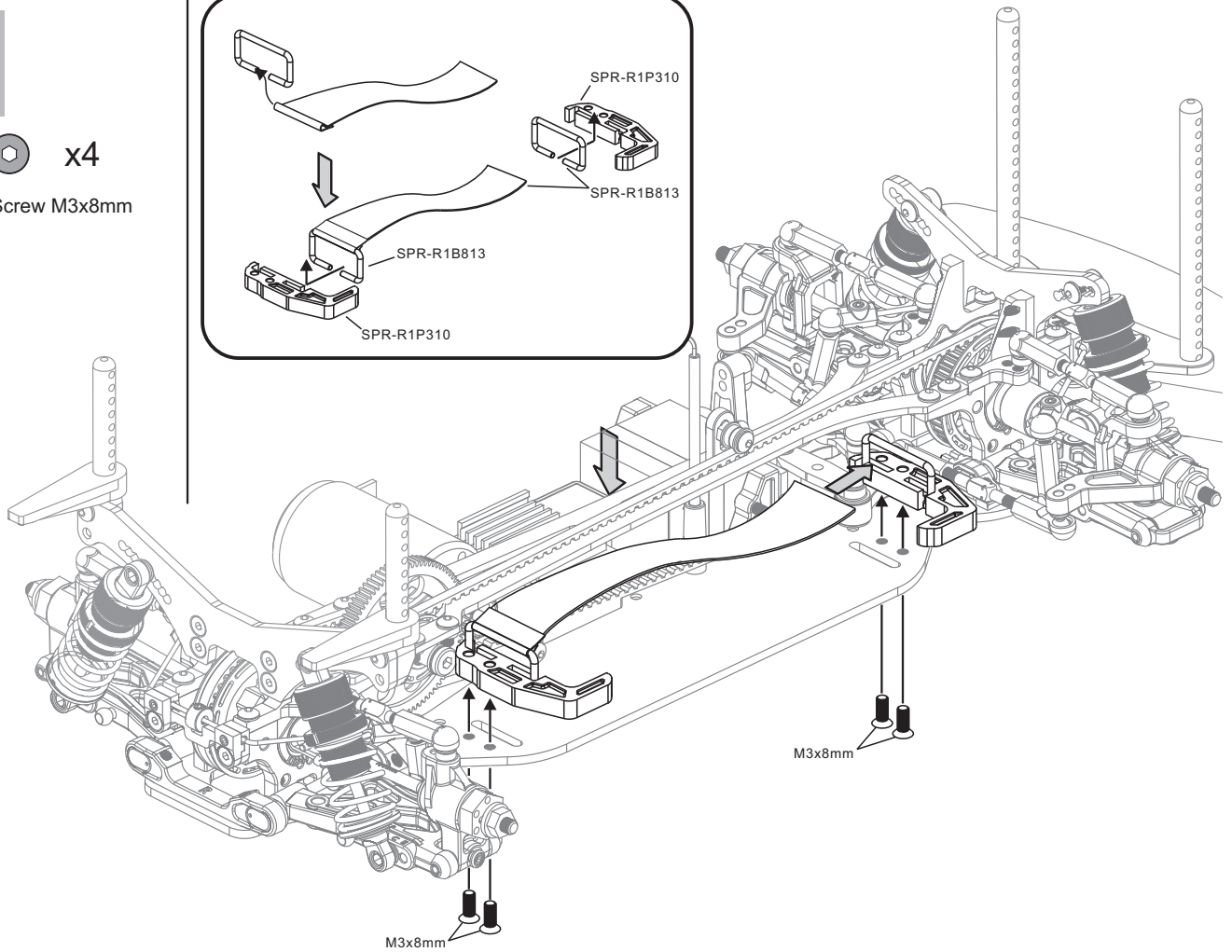
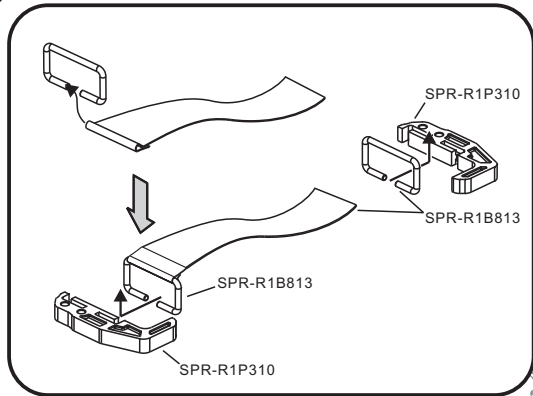


Use this for mounting the motor when a small spur gear is used.



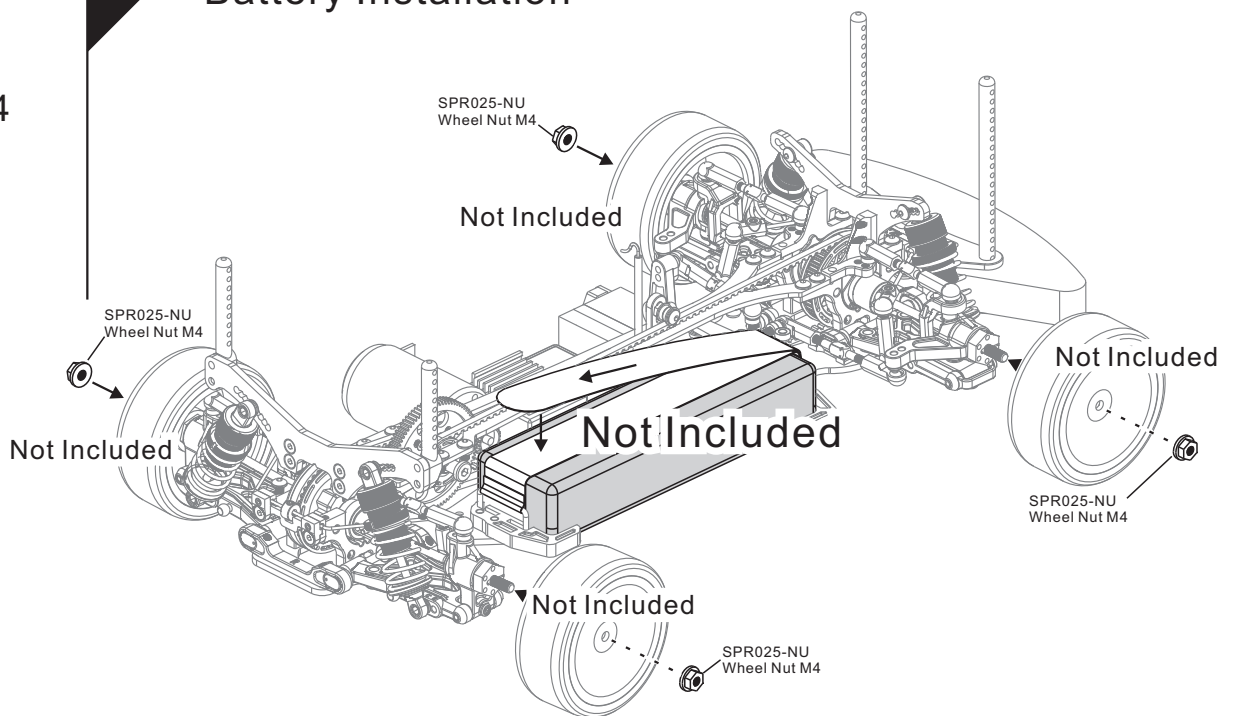
Flat Head Screw M3x8mm

### 38 Battery Holder Installation



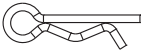
Wheel Nut M4

### 39 Battery Installation





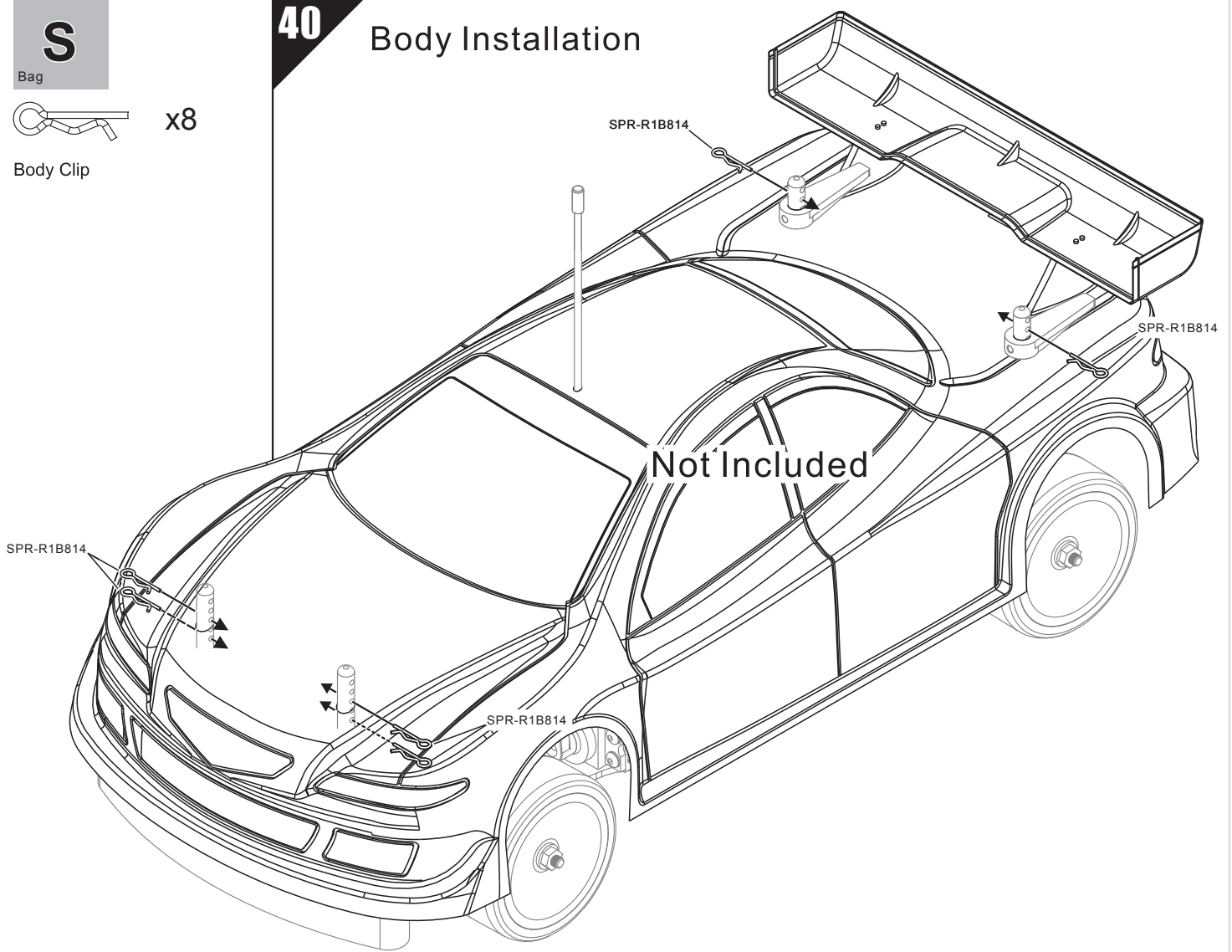
Bag



x8

Body Clip

# 40 Body Installation



## Gear Ratio

$$\text{Gear Ratio} = \frac{\text{Spur Gear}}{\text{Pinion Gear}} \times 1.9$$

Gear Ratio	Spur Gear											
	79T	80T	81T	82T	83T	84T	85T	86T	87T	88T	89T	
Pinion Gear	13T	11.55	11.69	11.84	11.98	12.13	12.28	12.42	12.57	12.72	12.86	13.01
	14T	10.72	10.86	10.99	11.13	11.26	11.4	11.54	11.67	11.81	11.94	12.08
	15T	10.01	10.13	10.26	10.39	10.51	10.64	10.77	10.89	11.02	11.15	11.27
	16T	9.38	9.5	9.62	9.74	9.86	9.98	10.09	10.21	10.33	10.45	10.57
	17T	8.83	8.94	9.05	9.16	9.28	9.39	9.5	9.61	9.72	9.84	9.95
	18T	8.34	8.44	8.55	8.66	8.76	8.87	8.97	9.08	9.18	9.29	9.39
	19T	7.9	8	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9
	20T	7.51	7.6	7.69	7.79	7.89	7.98	8.07	8.17	8.26	8.36	8.46
	21T	7.15	7.24	7.33	7.42	7.51	7.6	7.69	7.78	7.87	7.96	8.05
	22T	6.82	6.91	7	7.08	7.17	7.25	7.34	7.43	7.51	7.6	7.69
	23T	6.53	6.61	6.69	6.77	6.86	6.94	7.02	7.1	7.19	7.27	7.35
	24T	6.25	6.33	6.41	6.49	6.57	6.65	6.73	6.81	6.89	6.97	7.05
	25T	6	6.08	6.16	6.23	6.31	6.38	6.46	6.54	6.61	6.69	6.76
	26T	5.77	5.85	5.92	5.99	6.07	6.14	6.21	6.28	6.36	6.43	6.5
27T	5.56	5.63	5.7	5.77	5.84	5.91	5.98	6.05	6.12	6.19	6.26	
28T	5.36	5.43	5.5	5.56	5.63	5.7	5.77	5.84	5.9	5.97	6.04	



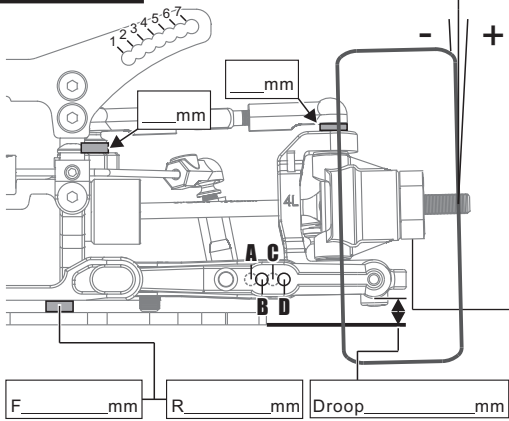
# Setup Sheet



Name: \_\_\_\_\_ Date: \_\_\_\_\_ Event: \_\_\_\_\_

Track: \_\_\_\_\_ Track Condition: \_\_\_\_\_ Lap Time: \_\_\_\_\_ Final Position: \_\_\_\_\_

## Front



Camber Angle +/- \_\_\_\_\_°

Caster Angle \_\_\_\_\_°

Ride Height \_\_\_\_\_mm

Sway Bar Ø \_\_\_\_\_mm

Wheel Hubs \_\_\_\_\_mm

Spacer \_\_\_\_\_mm

Front Diff  Gear  Spool

Diff Oil # \_\_\_\_\_

### Shocks

Shock Oil # \_\_\_\_\_

Piston

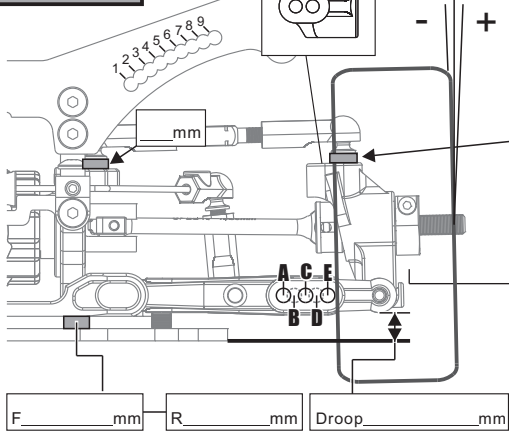
O-ring \_\_\_\_\_

Rebound \_\_\_\_\_

Spring \_\_\_\_\_

Length \_\_\_\_\_mm

## Rear



Camber Angle +/- \_\_\_\_\_°

Ride Height \_\_\_\_\_mm

Shim \_\_\_\_\_mm

Sway Bar Ø \_\_\_\_\_mm

Wheel Hubs \_\_\_\_\_mm

Spacer \_\_\_\_\_mm

Rear Diff Oil # \_\_\_\_\_

### Shocks

Shock Oil # \_\_\_\_\_

Piston

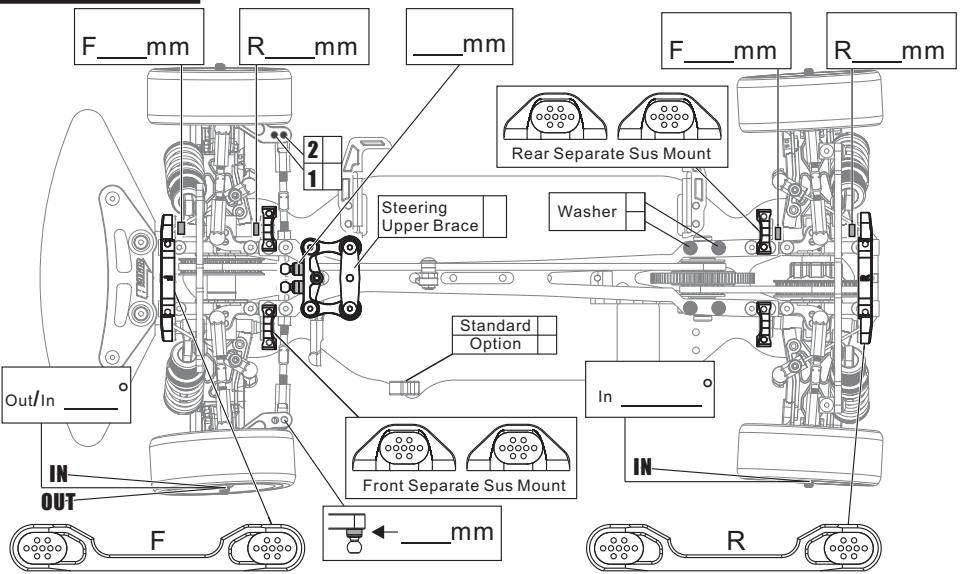
O-ring \_\_\_\_\_

Rebound \_\_\_\_\_

Spring \_\_\_\_\_

Length \_\_\_\_\_mm

## Chassis



## Tires

Brand: \_\_\_\_\_

Compound: \_\_\_\_\_

Insert: \_\_\_\_\_

Wheel: \_\_\_\_\_

## Others

Motor: \_\_\_\_\_

Spur Gear: \_\_\_\_\_

Pinion Gear: \_\_\_\_\_

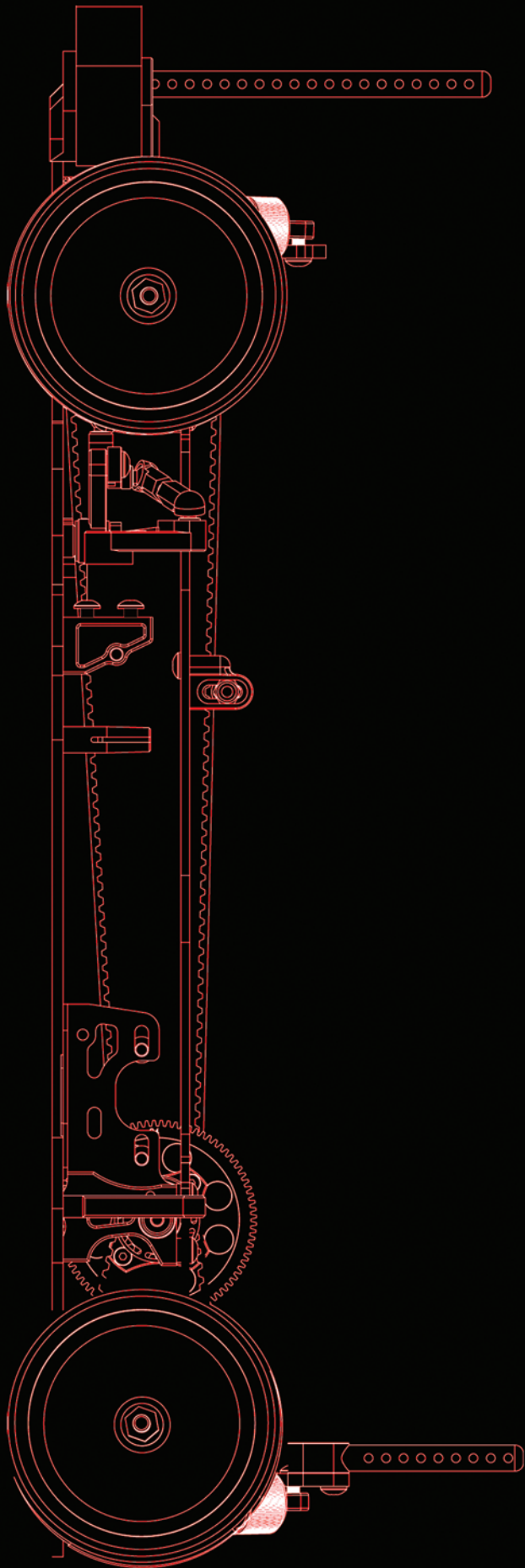
Battery: \_\_\_\_\_

ESC: \_\_\_\_\_

Body: \_\_\_\_\_

Wing: \_\_\_\_\_

Note: \_\_\_\_\_



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