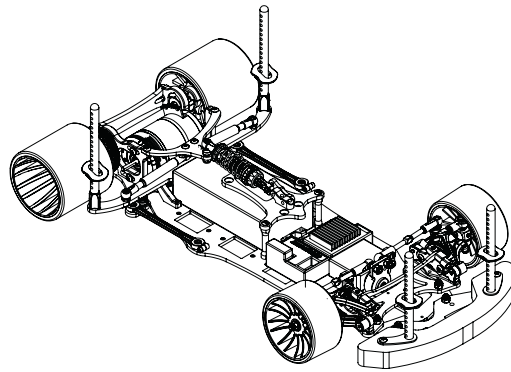


COMPETITION GRADE HIGH PERFORMANCE RADIO CONTROL RACING CAR CHASSIS KIT

# LIGHTNING 10

1/10 SCALE ELECTRIC COMPETITION CAR KIT



INSTRUCTIONS MANUAL

**vbc racing**



Thank you for purchasing VBC Racing product.

**Things that we should remind you.**

This VBC Racing kit is a high performance, racing grade car kit intended for experienced racers. The kit compose of VBC formulated composite materials, top quality full carbon fiber chassis and high grade 7075 material which will give you a competitive edge over the others.

Novice racer should seek advice from more experienced racer before assembly.

Always keep this instruction manual handy at all times for quick reference even after completing the assembly.

**Before your assembly, sand the chassis edges.**

Sand the chassis edges with #600 sand paper and apply CA glue to the edges and counter sink holes.

**Need help or support.**

If you need help or you would like to leave us a comment, please email to our support team: [support@vbc-racing.com](mailto:support@vbc-racing.com) or visit our web site [www.vbcrcing.com](http://www.vbcrcing.com)



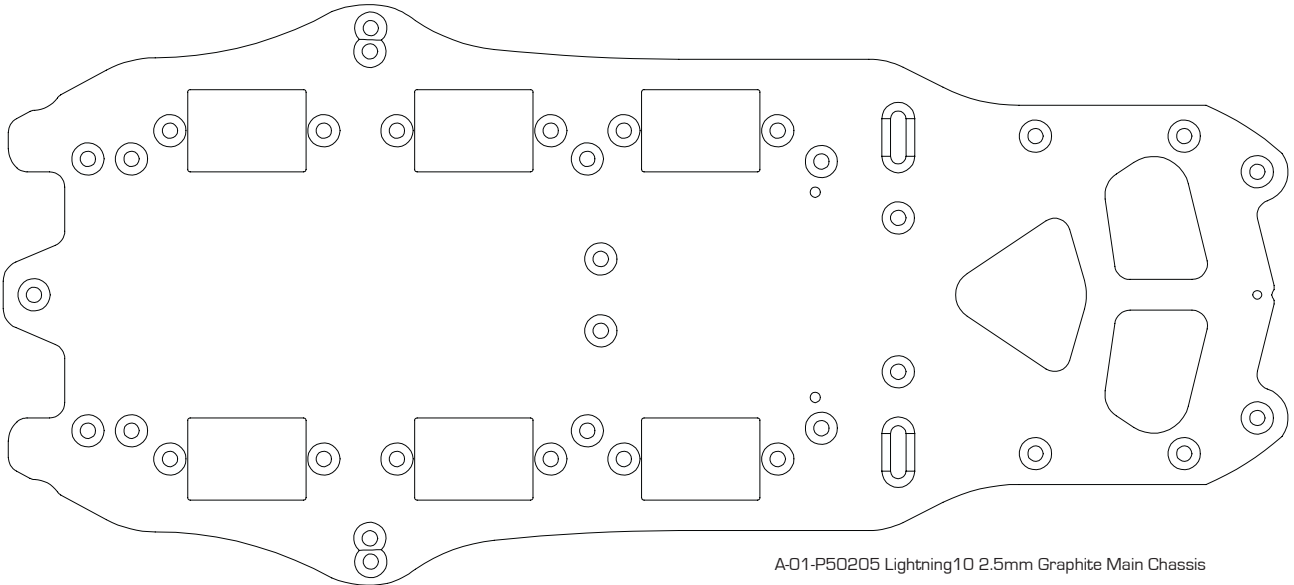
# 1

## Graphite Edges Protection Procedure

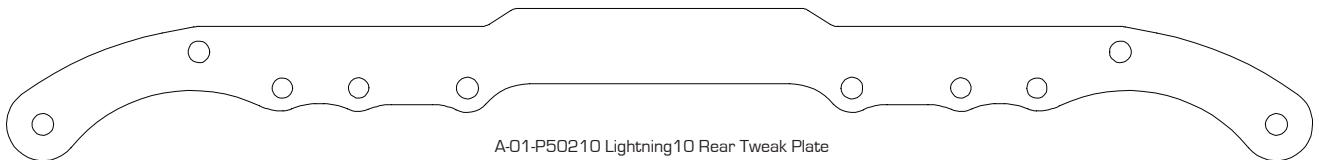


\*Not included in this kit

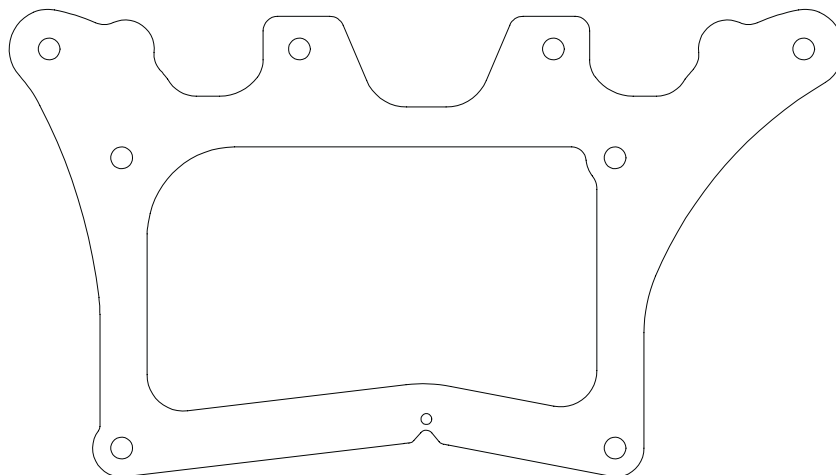
Sand the chassis edges with #600 sand paper(not included) and apply CA glue(not included) to the edges of the chassis.



A-01-P50205 Lightning10 2.5mm Graphite Main Chassis



A-01-P50210 Lightning10 Rear Tweak Plate

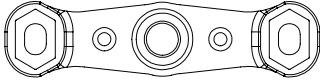


A-01-VBC-5083 Lightning12 Graphite Lower Pod Plate

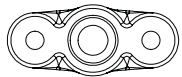
Sand the below graphite edges with #600 sand paper and apply CA glue to the edges.

# 2

## Pivot Brace Assembly Part 1



Pivot Brace D-05-VBC-0101 x 1



Pivot Brace Cover D-05-VBC-0101 x 1



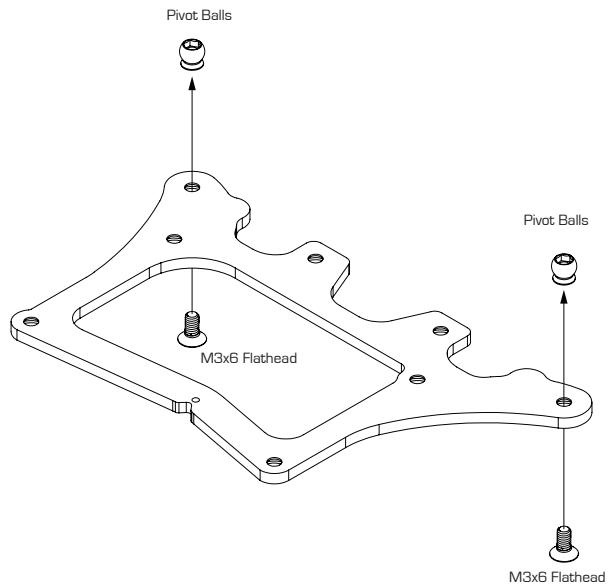
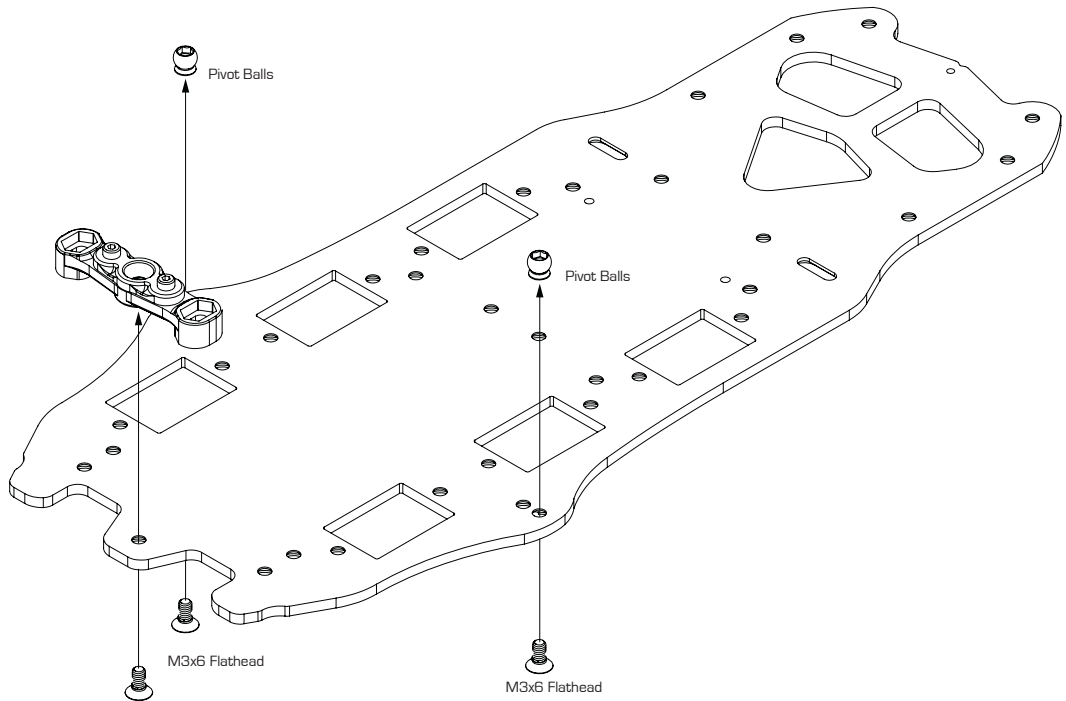
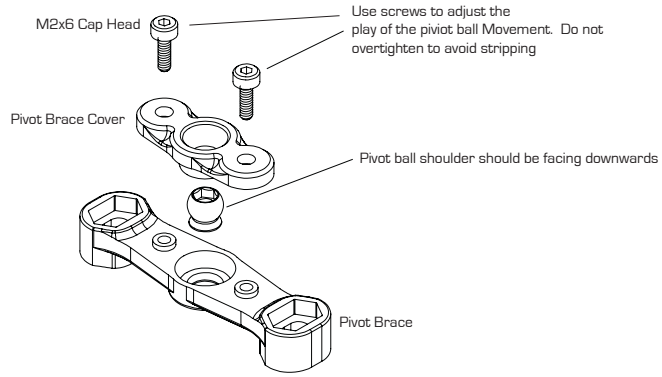
M2x6 Cap Head C-02-SC-R2.0x6 x 2



Pivot Balls A-03-VBC-1027 x 5



M3x6 Flathead C-02-SC-F0306 x 5



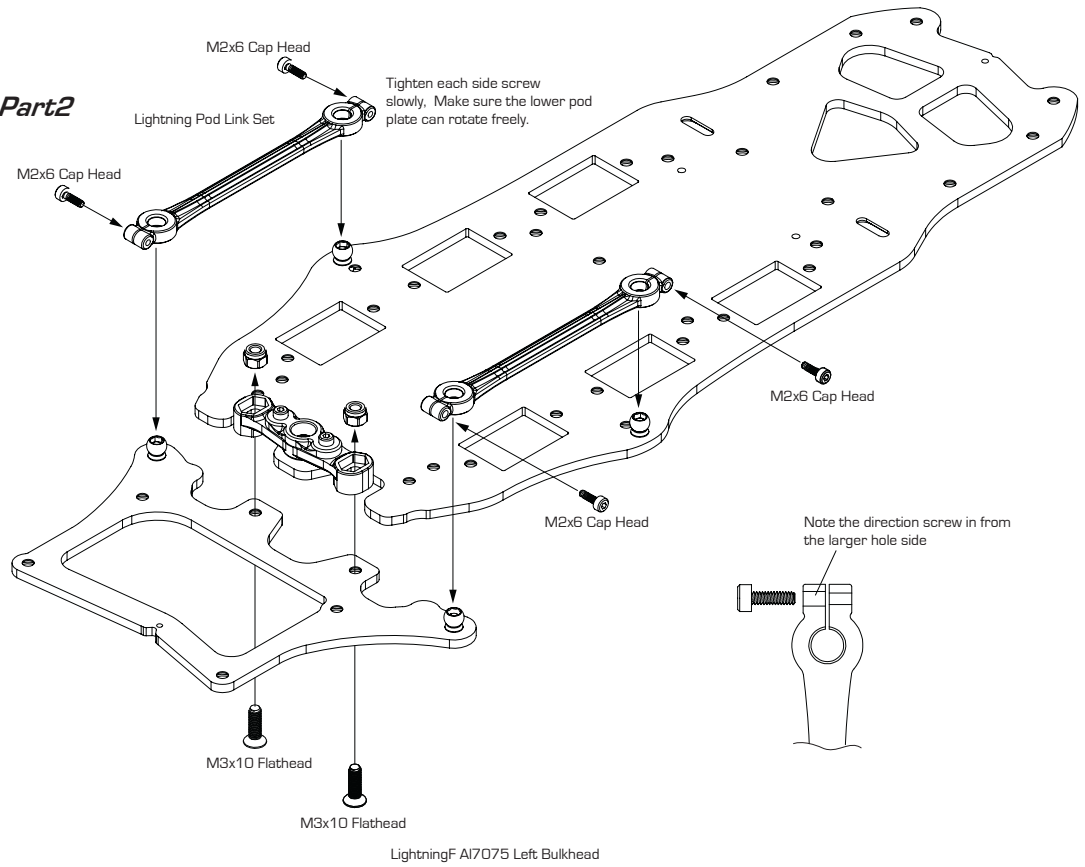
# 2

## Pivot Brace Assembly Part2

M2x6 Cap Head C-02-SC-R2.0x6 x 4

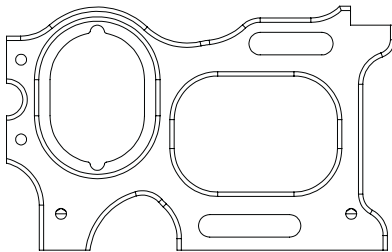
M3 Locknut C-02-SC-NN03 x 2

M3x10 Flathead C-02-SC-F0310 x 2

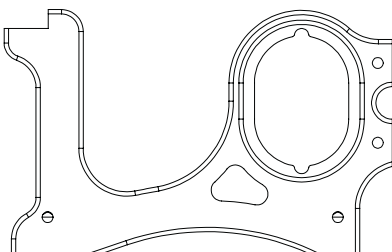


# 3

## Rear Bulkhead Assembly Part 1

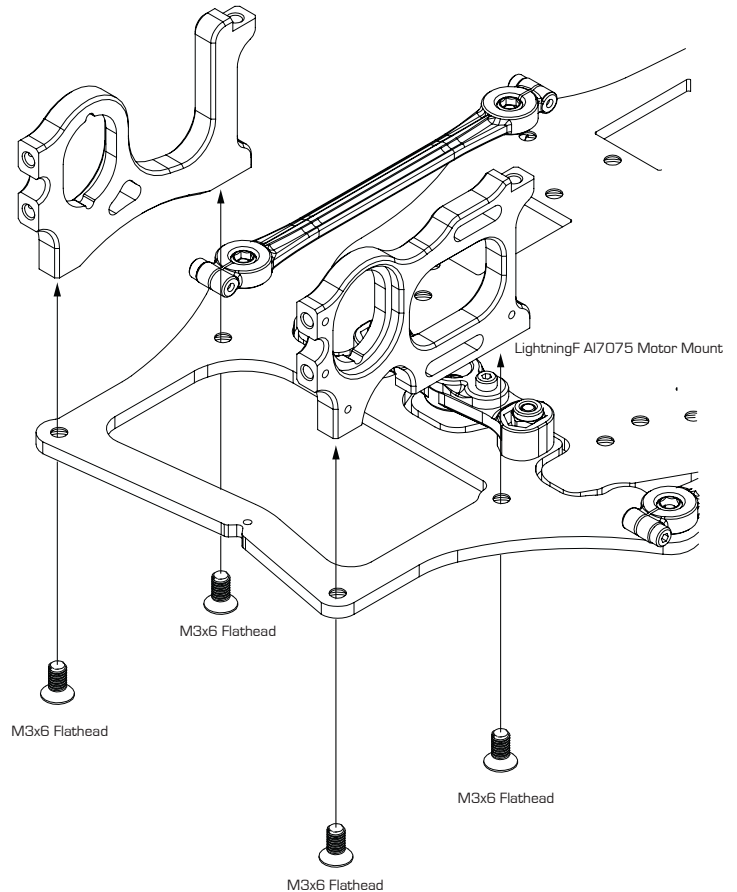


LightningF AI7075 Motor Mount B-02-VBC-5128 x 1



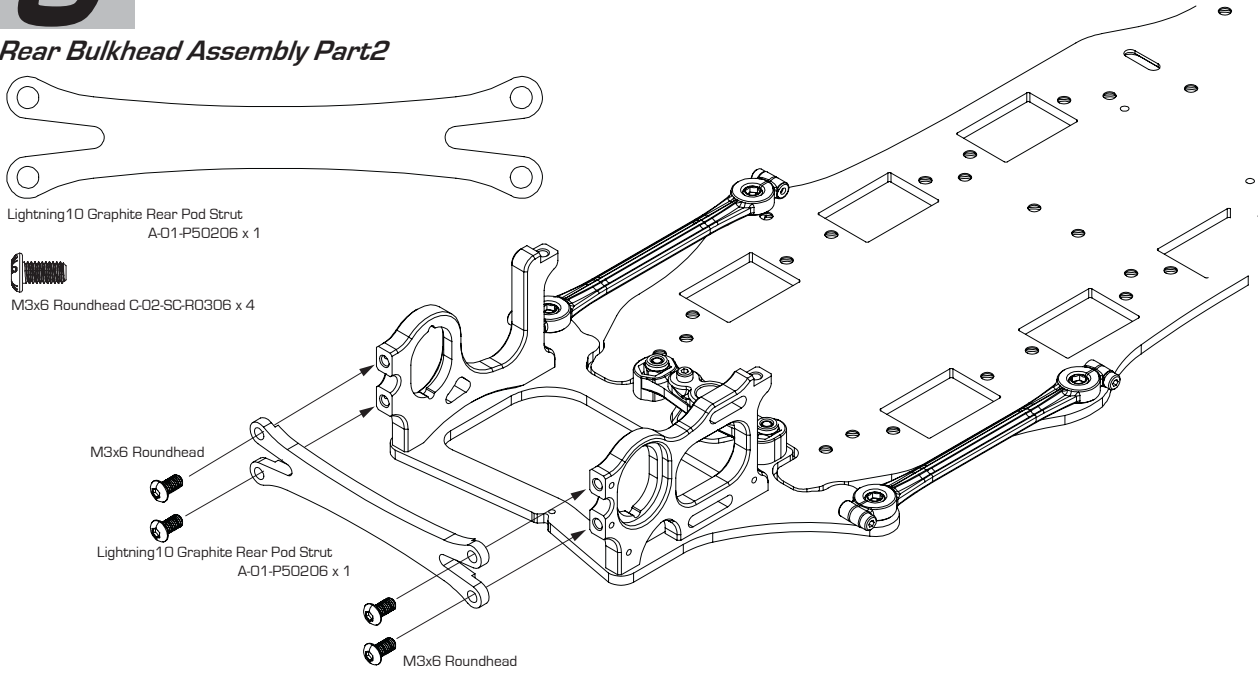
LightningF AI7075 Left Bulkhead B-02-VBC-5129 x 1

M3x6 Flathead C-02-SC-F0306 x 4



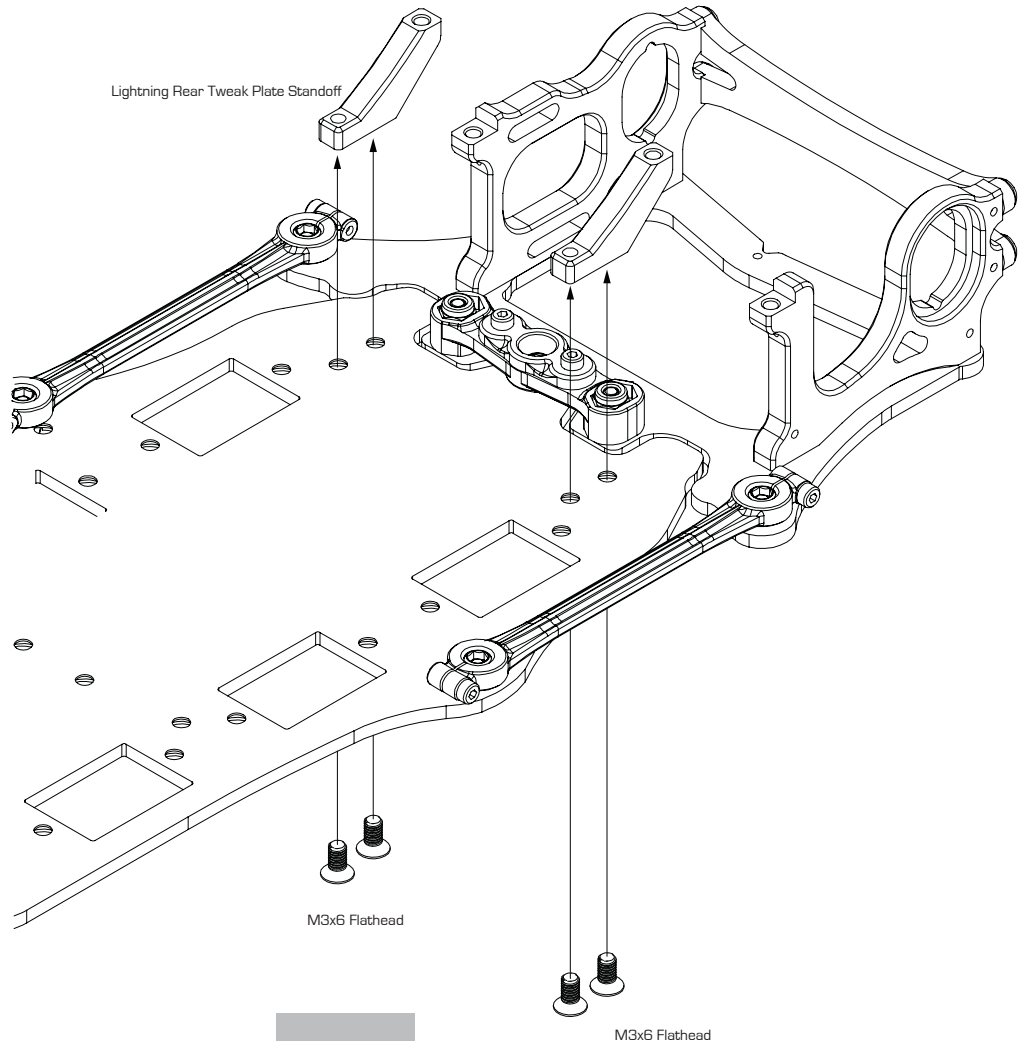
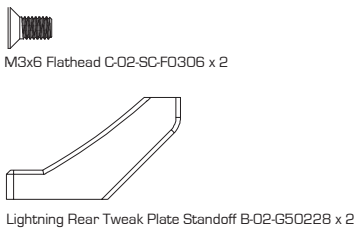
# 3

## Rear Bulkhead Assembly Part2



# 4

## Chassis Brace Assembly



# 4

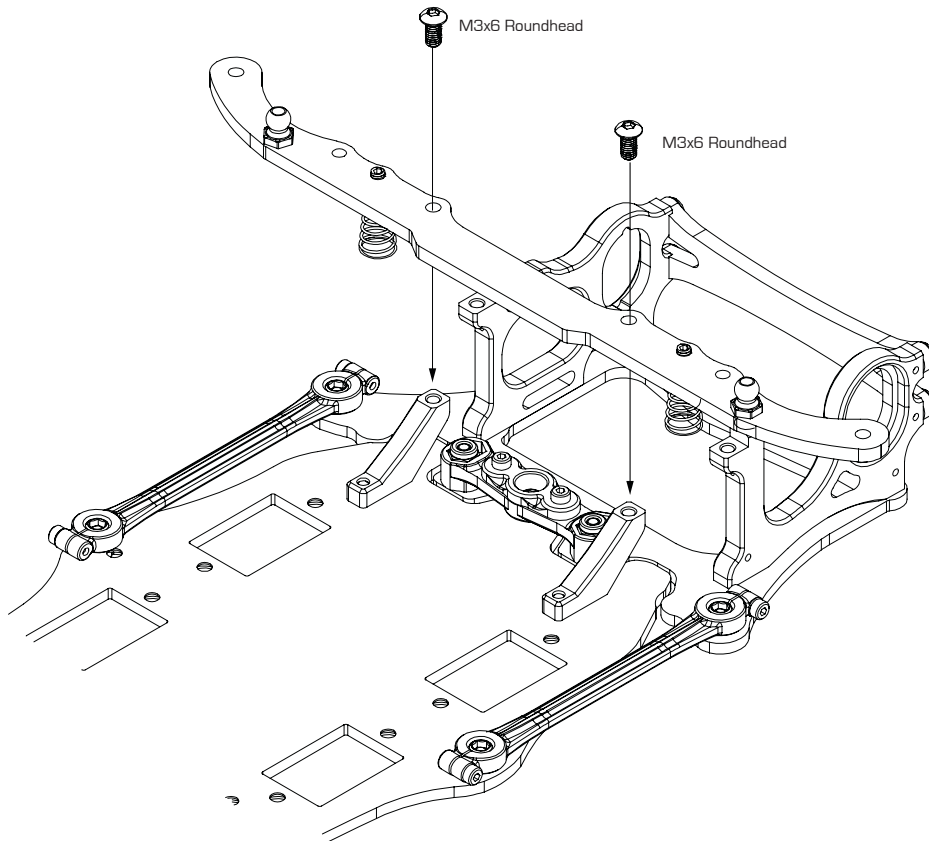
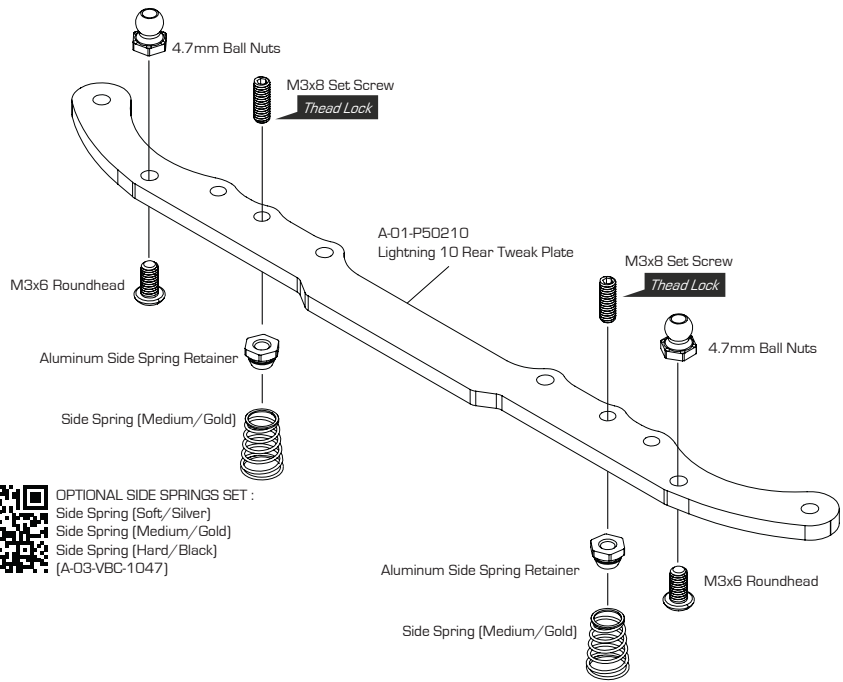
4.7mm Ball Nuts B-02-VBC-5020 x 2

M3x6 Roundhead C-02-SC-R0306 x 4

Aluminum Side Spring Retainer B-02-VBC-5074 x 2

Side Spring (Medium/Gold) A-03-VBC-1047 x 2

M3x8 Set Screw C-02-SC-SS-0308 x 2



# 5



Ball Connector 4.7x17mm A-02-VBC-5092 x 1



4.7mm Ball Nuts B-02-VBC-5020 x 2



T2 7075 Spacer B-02-VBC-0019-20 x 2



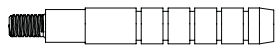
T1 7075 Spacer B-02-VBC-0019-10 x 1



M3x6 Roundhead C-02-SC-R0306 x 4



M3 Locknut C-02-SC-NN03 x 1



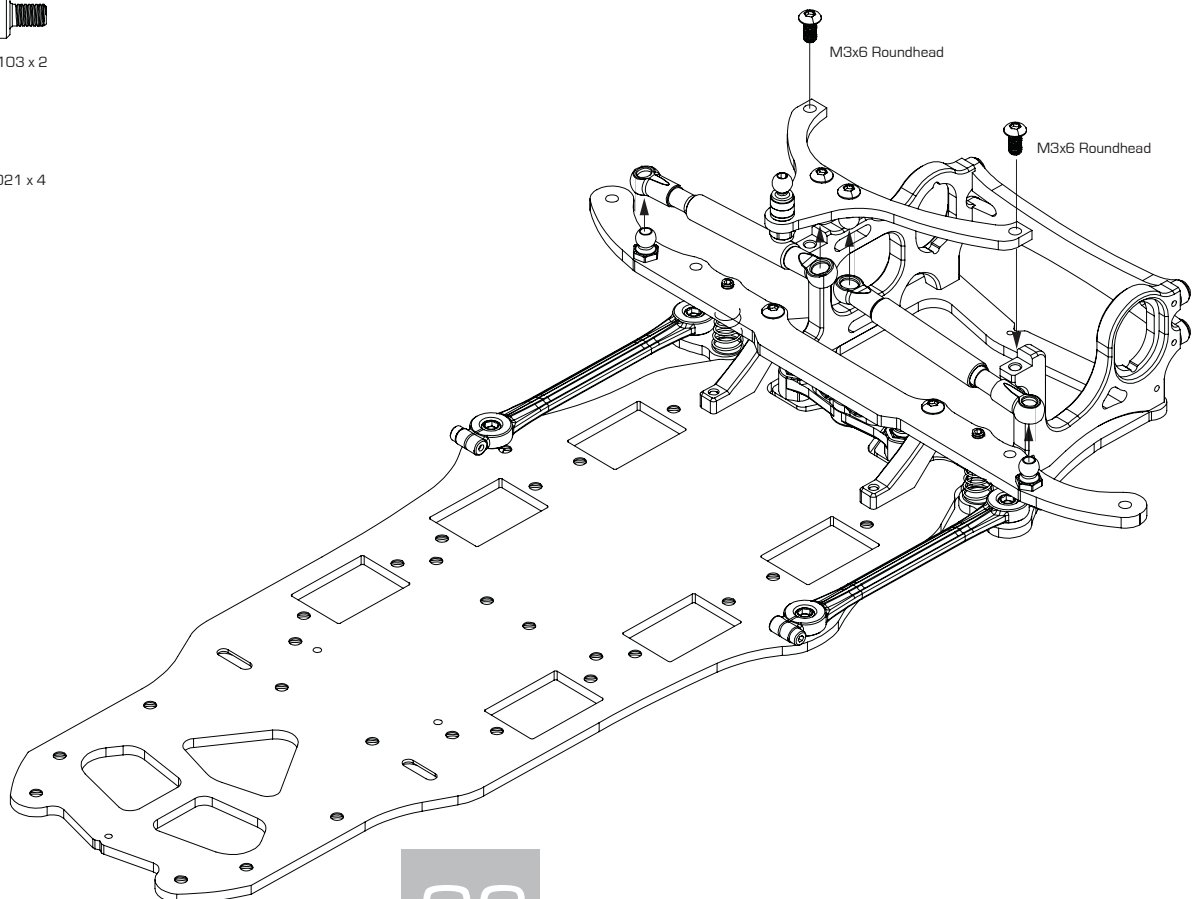
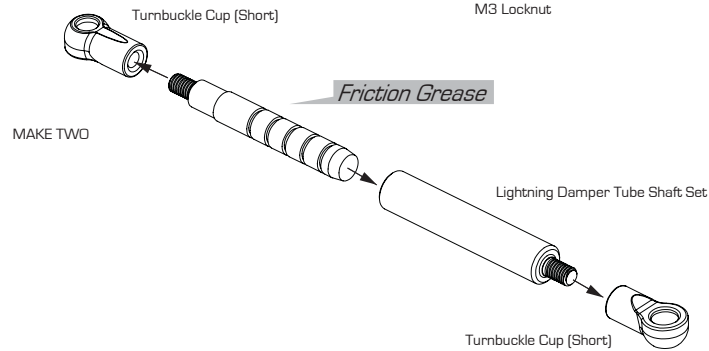
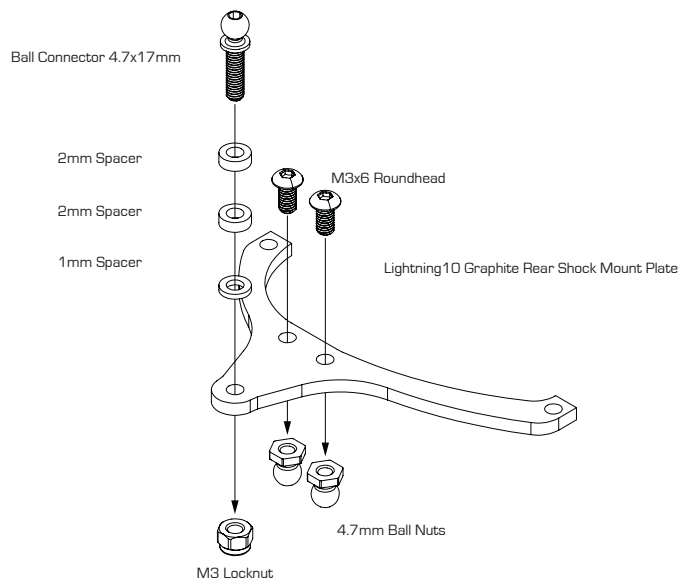
Lightning Damper Tube Shaft D-05-VBC-0103 x 2



Lightning Damper Tube D-05-VBC-0103 x 2



Turnnuckle Cup (Short) A-03-VBC-5021 x 4



# BAG MARKED **STEP 6**



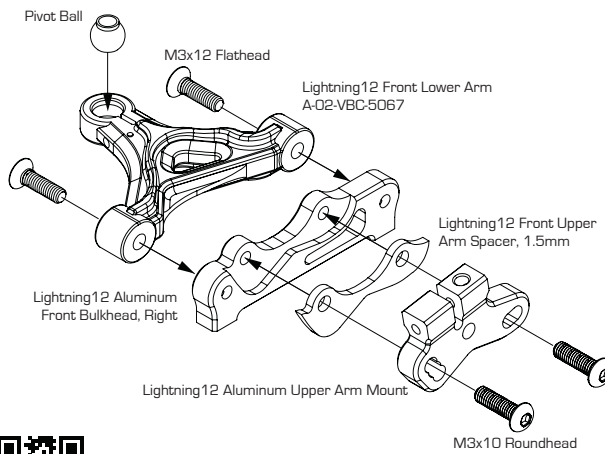
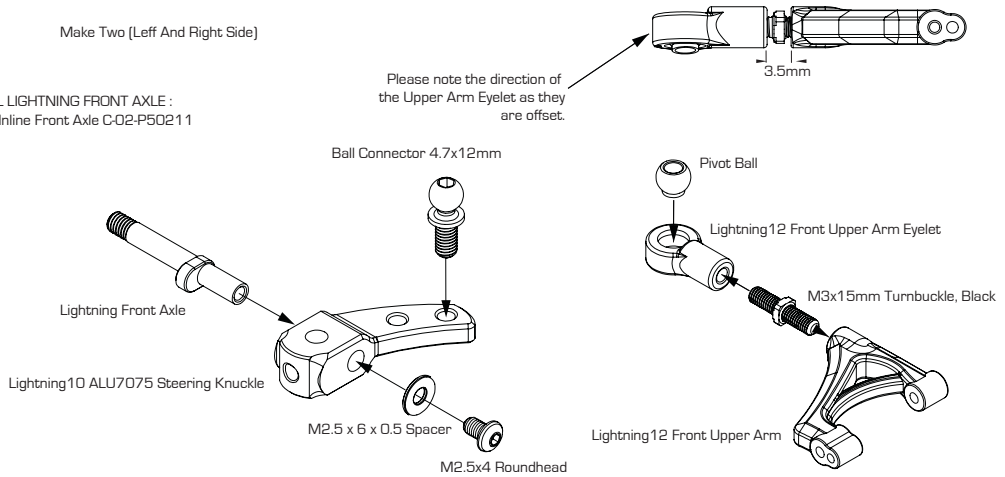
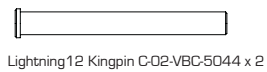
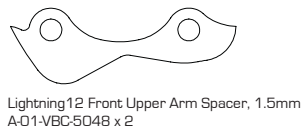
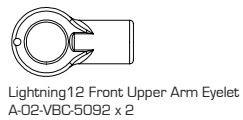
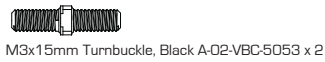
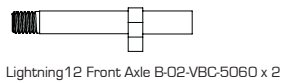
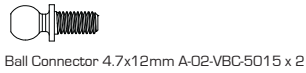
# 6



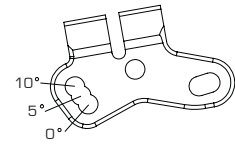
OPTIONAL LIGHTNING FRONT AXLE :  
Lightning Inline Front Axle C-02-P50211

Make Two (Left And Right Side)

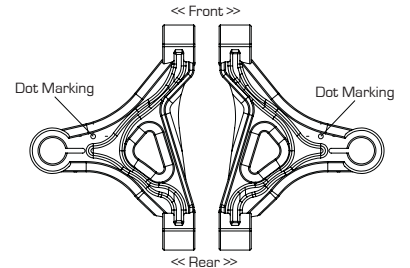
Please note the direction of the Upper Arm Eyelet as they are offset.



Upper Arm Mount Active Caster Setup



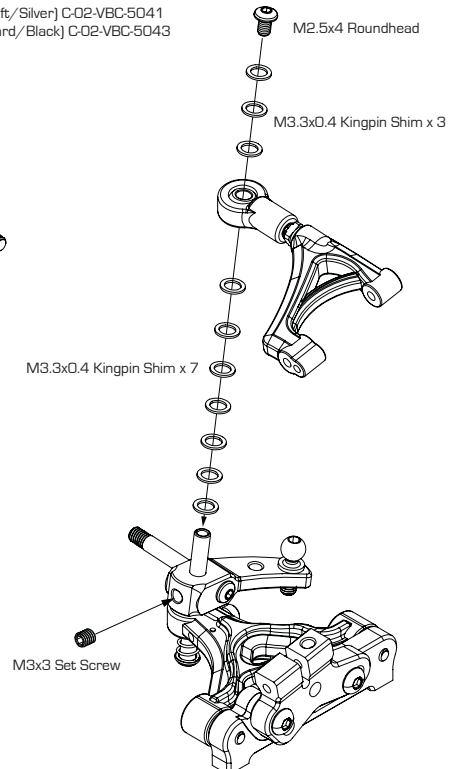
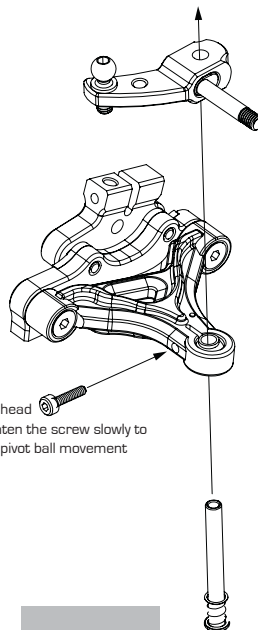
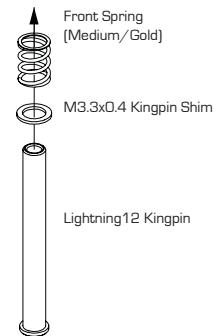
Note : Lower arm in the same direction, dot marking should be facing up



OPTIONAL FRONT UPPER ARM SPACER SET :  
0.5mm / 1.0mm Adjust Spacer  
[D-05-VBC-0109]



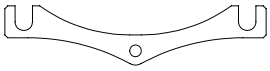
OPTIONAL FRONT SPRINGS :  
Front Spring [Soft/Silver] C-02-VBC-5041  
Front Spring [Hard/Black] C-02-VBC-5043





# 6

## Front Suspension Assembly



Lightning Height Adjust Spacer, 1.5mm  
A-01-VBC-5045 x 2



M3x12 Flat Head Screw C-02-SC-F0312 x 4



M2x4 Roundhead Screw C-02-SC-R0204 x 2



2mm Upper Hinge Pin C-02-VBC-5054 x 2



Caster Spacer, 0.8mm D-05-VBC-0110 x 2



Caster Spacer, 1.2mm D-05-VBC-0110 x 2



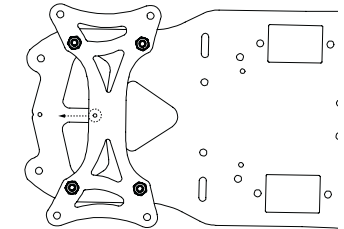
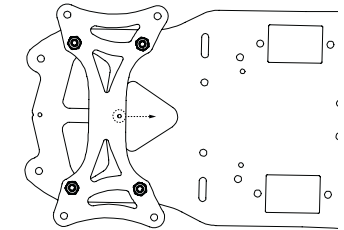
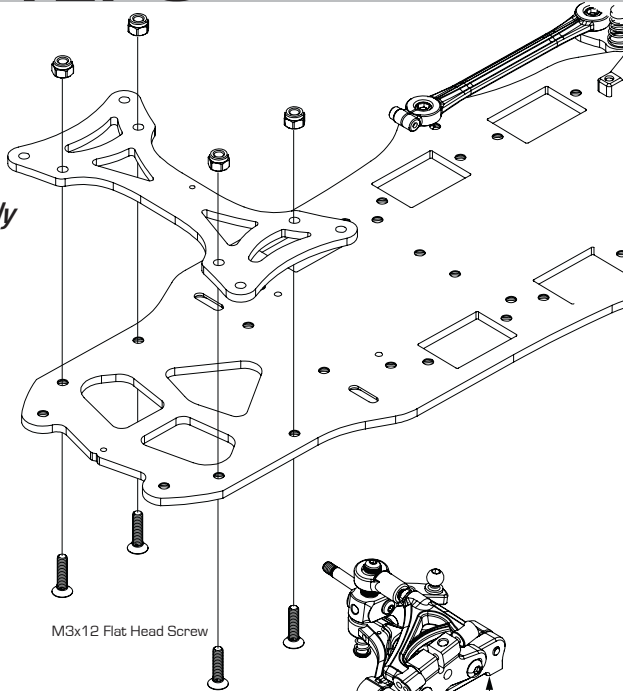
M3x2mm Set Screw C-02-SC-SS-0302 x 2



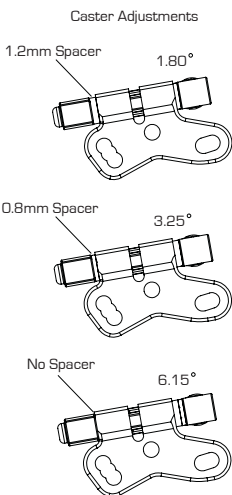
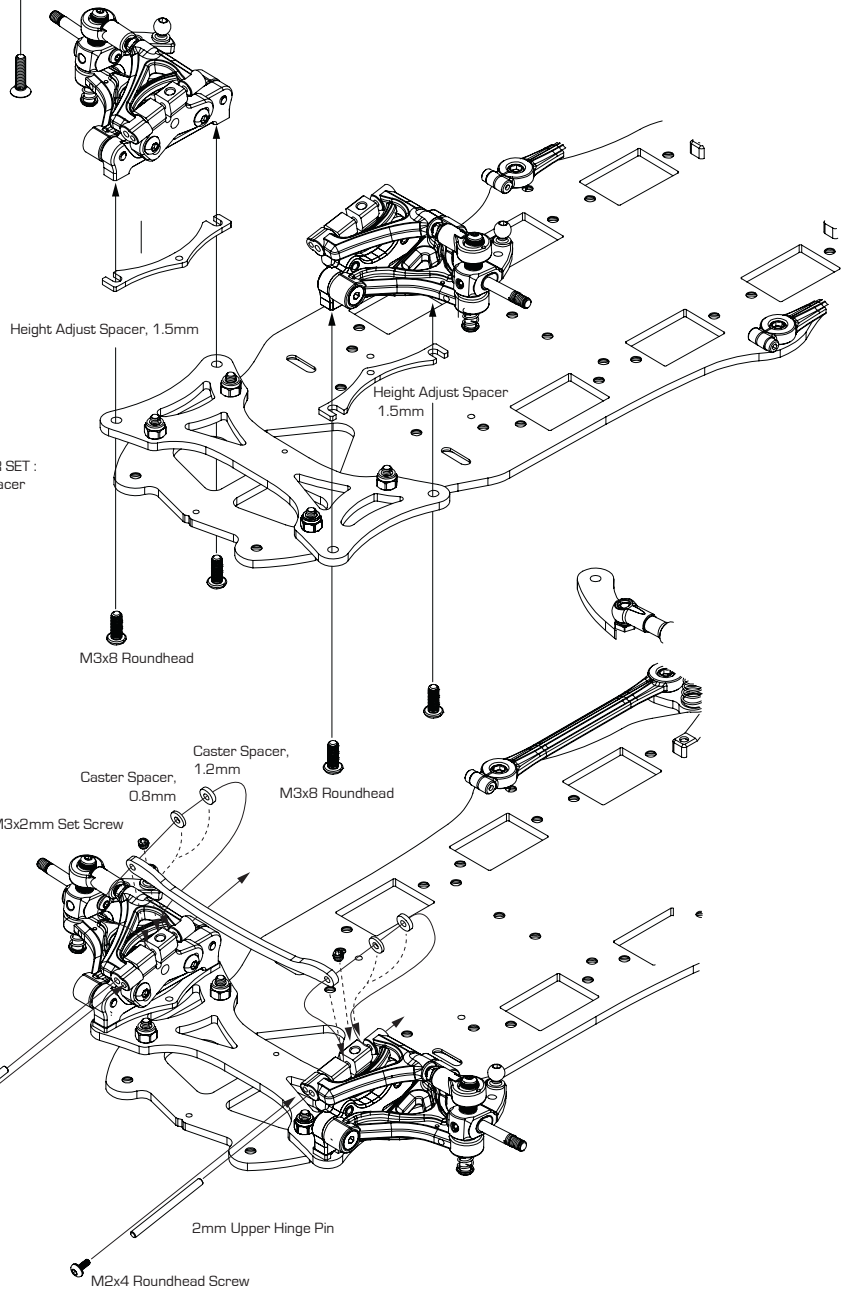
Lightning10 Front Hinge Brace A-01-G50229 x 1



M3x8 Roundhead C-02-SC-R0308 x 4

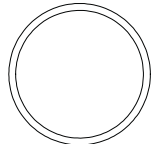


OPTIONAL HEIGHT ADJUST SPACER SET :  
0.5mm / 1.0mm Height Adjuster Spacer  
(D-05-VBC-0108)



# 7

## Ball Differential Assembly



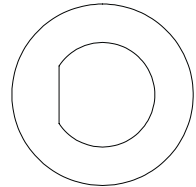
Differential Seal O-ring B-02-VBC-5082 x 2



Ball Bearing Flanged 3/8"x1/4"  
C-02-BB-3814F x 4



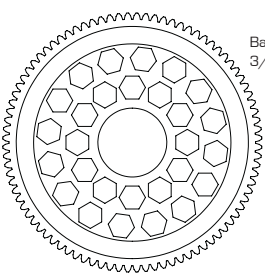
Ball Bearing 3/8"x1/4" C-02-BB-3814 x 1



Differential Drive Ring B-02-VBC-1001 x 2



1/8" Differential Balls C-02-DB-0801S x 16



64 Pitch 88T Spur Gear A-03-P50232 x 1



Thrust Cone B-02-VBC-5081 x 1



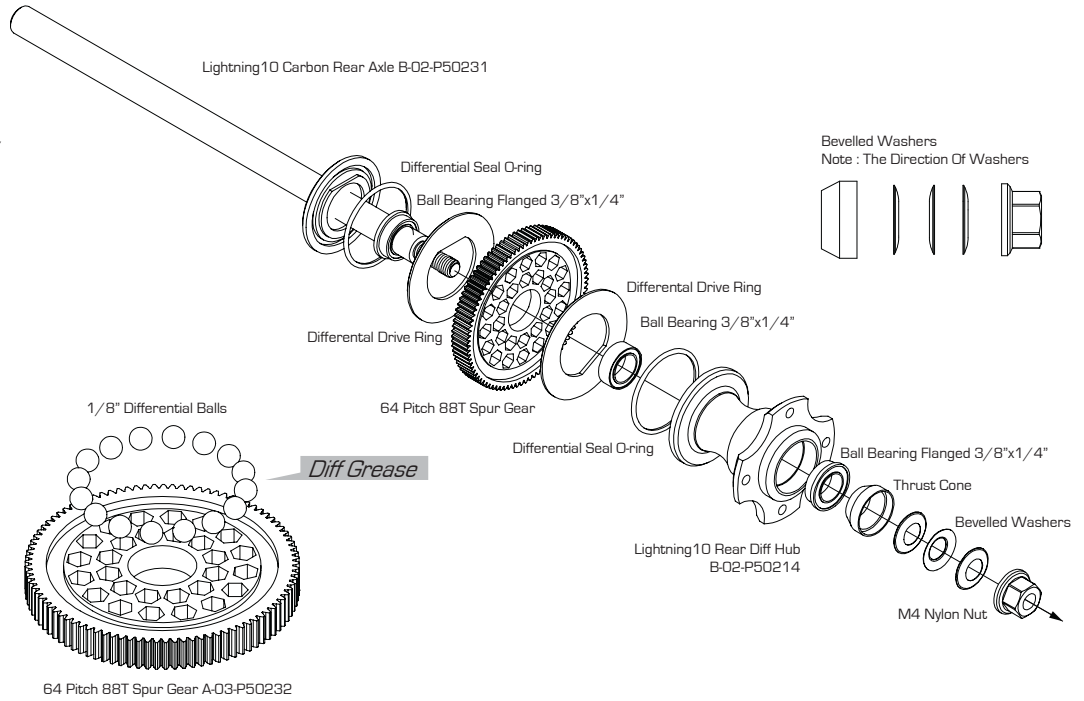
Bevelled Washer C-02-VBC-5076 x 3



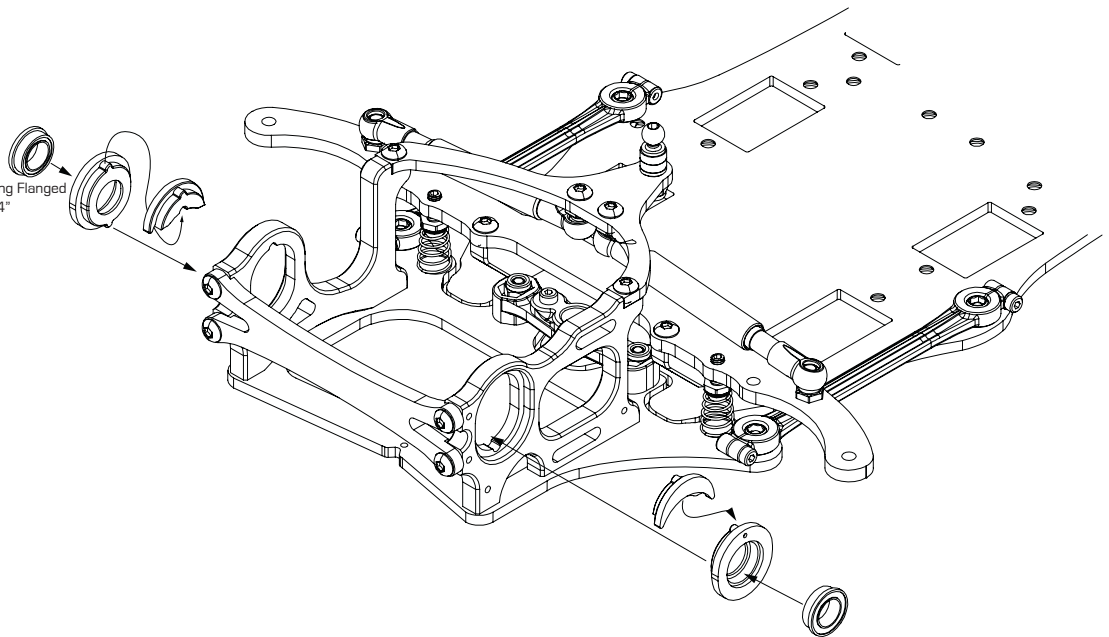
M4 Nylon Nuts A-02-VBC-5075 x 1



Axle Height Adjuster Spacer A-01-VBC-5131 x 2

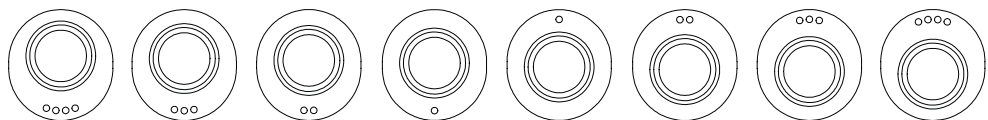


Bevelled Washers  
Note : The Direction Of Washers



Lightning 12 Axle Height Adjuster  
D-05-VBC-0114

High Low

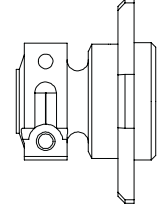


# 7

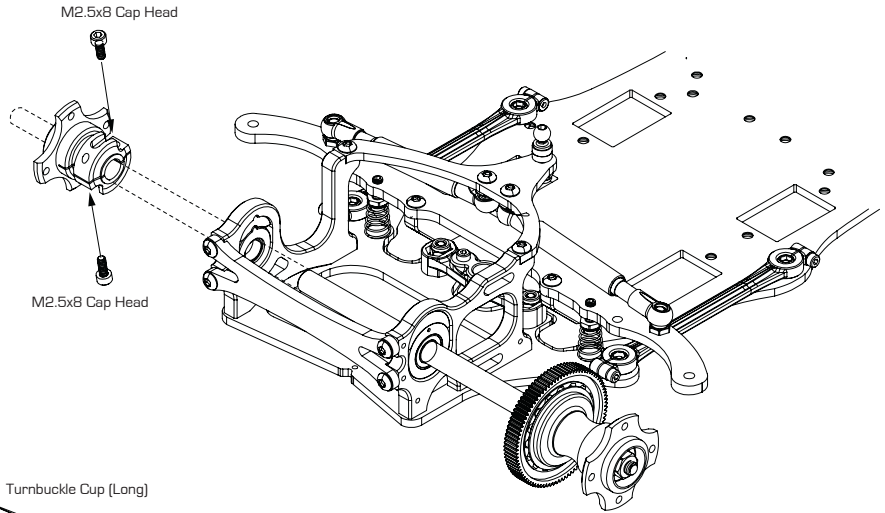
## Ball Differential Assembly



M2.5x8 Cap Head Screw C-02-SC-R2508 x 2

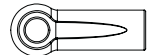


Lightning10 Left Rear Wheel Hub B-02-P50213 x 1



# 8

## Servo And Top Plate Assembly



Turnbuckle Cup (Long) A-03-VBC-5016 x 4



50mm Turnbuckle for Lightning Series B-02-P50234 x 2



M3x6x0.5mm Spacer B-02-VBC-5093 x 4



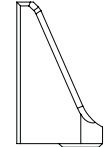
M3x8 Roundhead C-02-SC-R0308 x 4



Servo Spacer B-02-VBC-5013 x 2



Alum Servo Mount B-02-VBC-5012 x 2



Alum Servo Mount for Low Profile Servo B-02-P50262



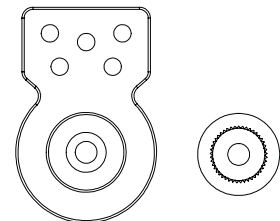
Ball Connector 4.7x12mm A-02-VBC-5015 x 2



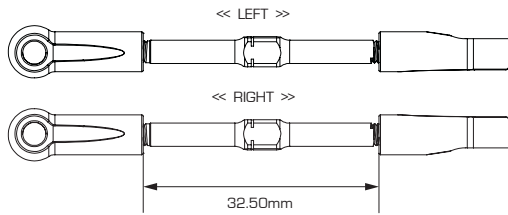
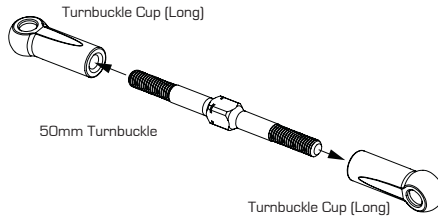
T1 7075 Spacer B-02-VBC-0019-10 x 2



M3 Locknut C-02-SC-NN03 x 2



Servo Saver Set B-03-VBC-5017 x 1

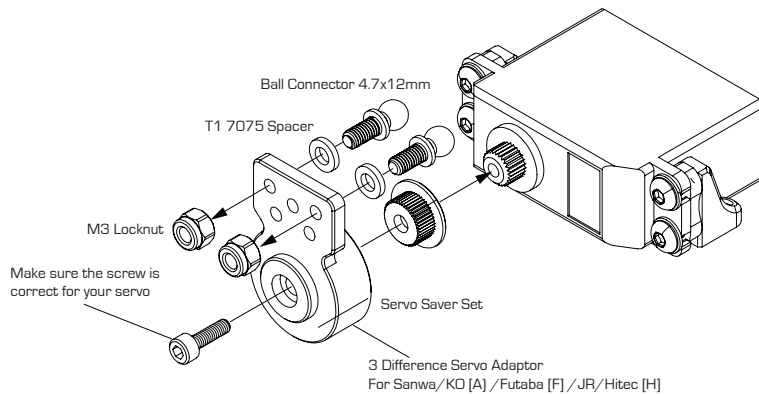
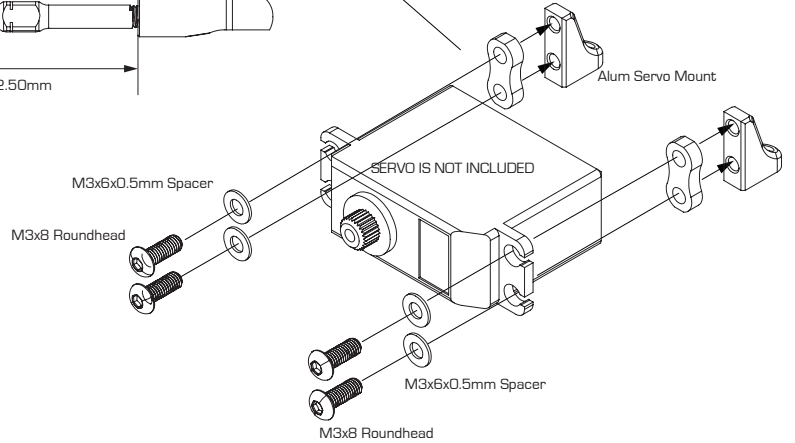


Optional : Tie Rod Wrench Set D-05-VBC-0048



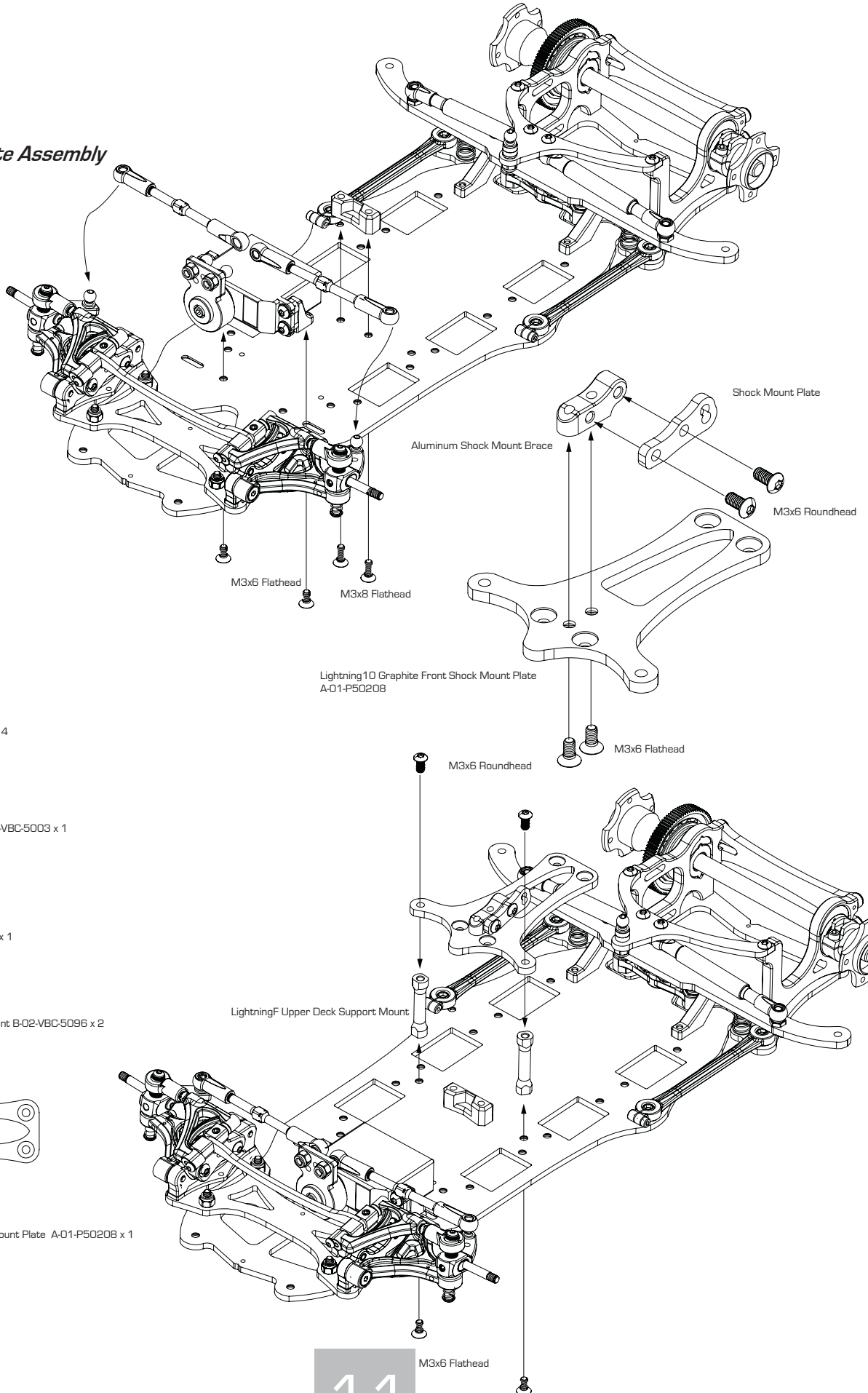
1mm Servo Spacer  
Note : Use this Spacer To adjust the ackerman

\*B-02-VBC-5012 Alum Servo Mount for mini servo setup and B-02-P50262 for standard servo setup



# 8

## Servo And Top Plate Assembly




M3x6 Flathead C-02-SC-F0306 x 6



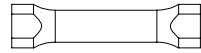
M3x6 Roundhead C-02-SC-R0306 x 4



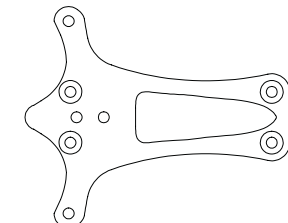
Aluminum Shock Mount Brace A-01-VBC-5003 x 1



Shock Mount Plate A-01-VBC-5004 x 1



LightningF Upper Deck Support Mount B-02-VBC-5096 x 2

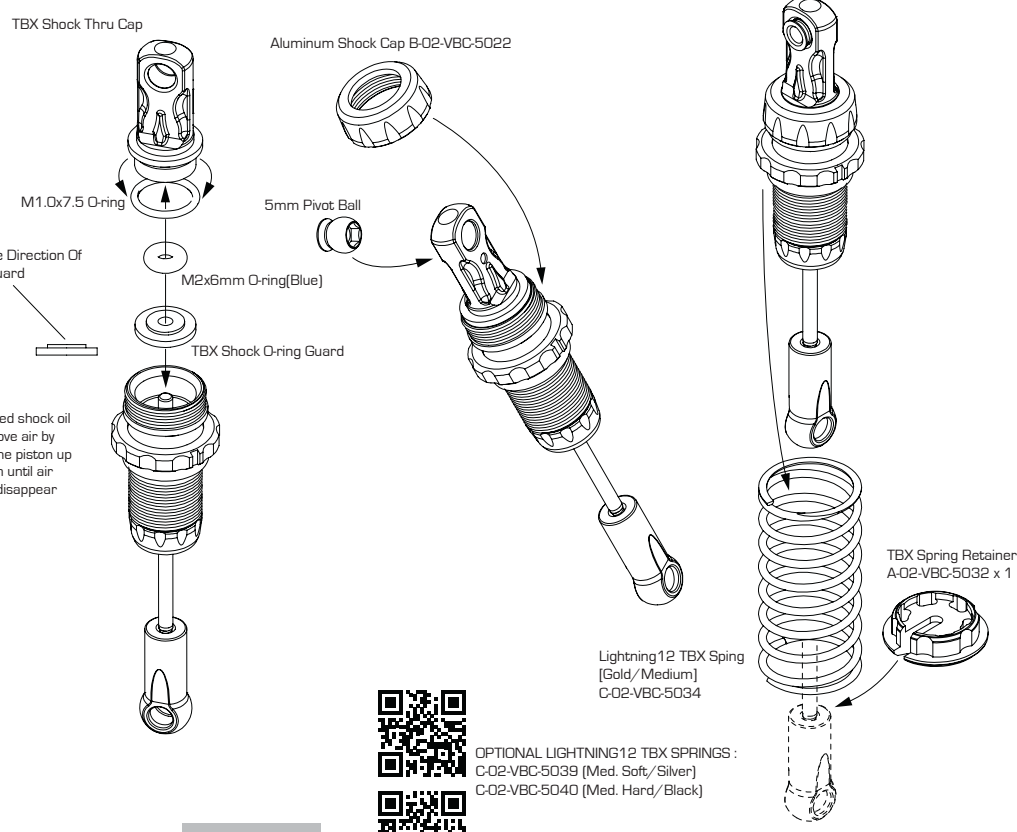
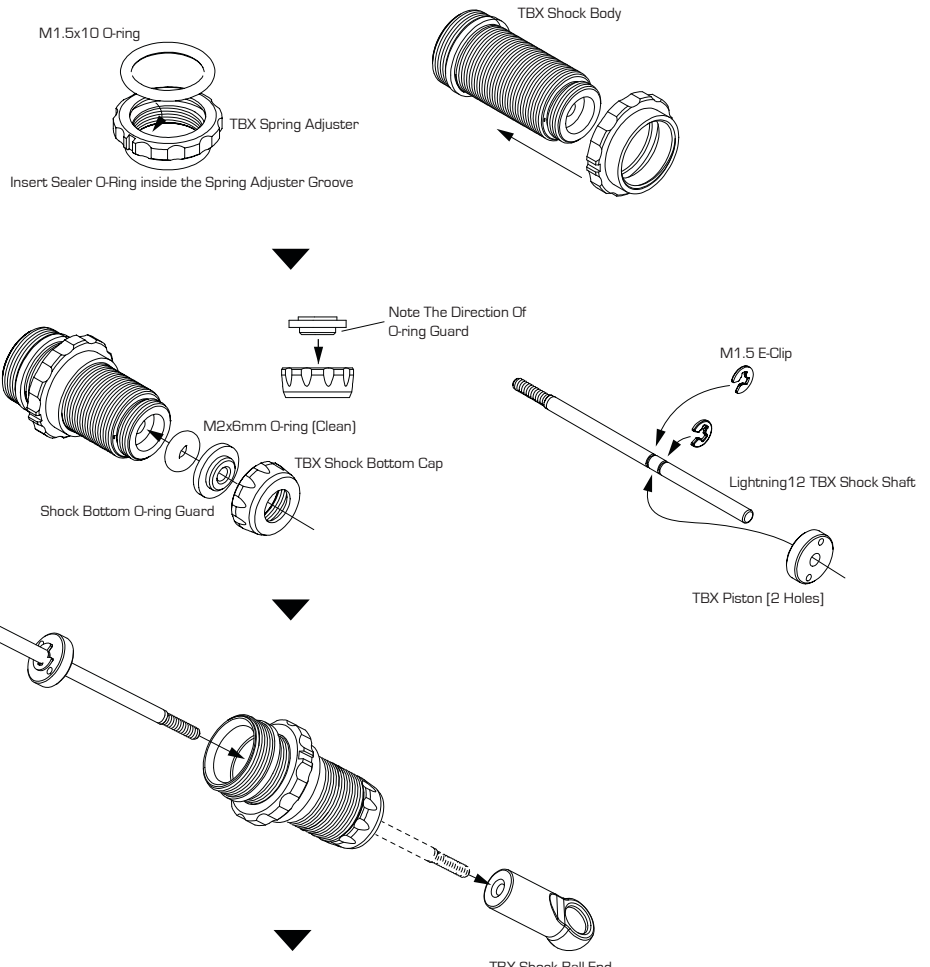


Lightning10 Graphite Front Shock Mount Plate A-01-P50208 x 1

# 9

## Assemble TBX Shock

- 
- TBX Shock Body B-02-VBC-5023 x 1
- 
- TBX Spring Adjuster B-02-VBC-5024 x 1
- 
- M1.5x10 O-ring C-02-VBC-5035 x 1
- 
- TBX Shock Bottom Cap B-02-VBC-5025 x 1
- 
- Shock Bottom O-ring Guard A-02-VBC-5030 x 1
- 
- M2x6mm O-ring (Blue) C-02-VBC-5037 x 1
- 
- M2x6mm O-ring (Clean) R-02-P50264 x 1
- 
- TBX Piston [2 Holes] A-02-VBC-5027 x 1
- 
- TBX Piston [3 Holes] A-02-VBC-5028 x 1
- 
- Lightning12 TBX Shock Shaft C-02-VBC-5026 x 1
- 
- M1.5 E-Clip C-02-VBC-5038 x 2
- 
- TBX Shock Ball End B-02-VBC-5033 x 1
- 
- TBX Shock O-ring Guard A-02-VBC-5029 x 1
- 
- TBX Shock Thru Cap A-02-VBC-5031 x 1
- 
- M1.0x7.5 O-ring C-02-VBC-5036 x 1
- 
- 5mm Pivot Ball A-03-VBC-1027 x 1



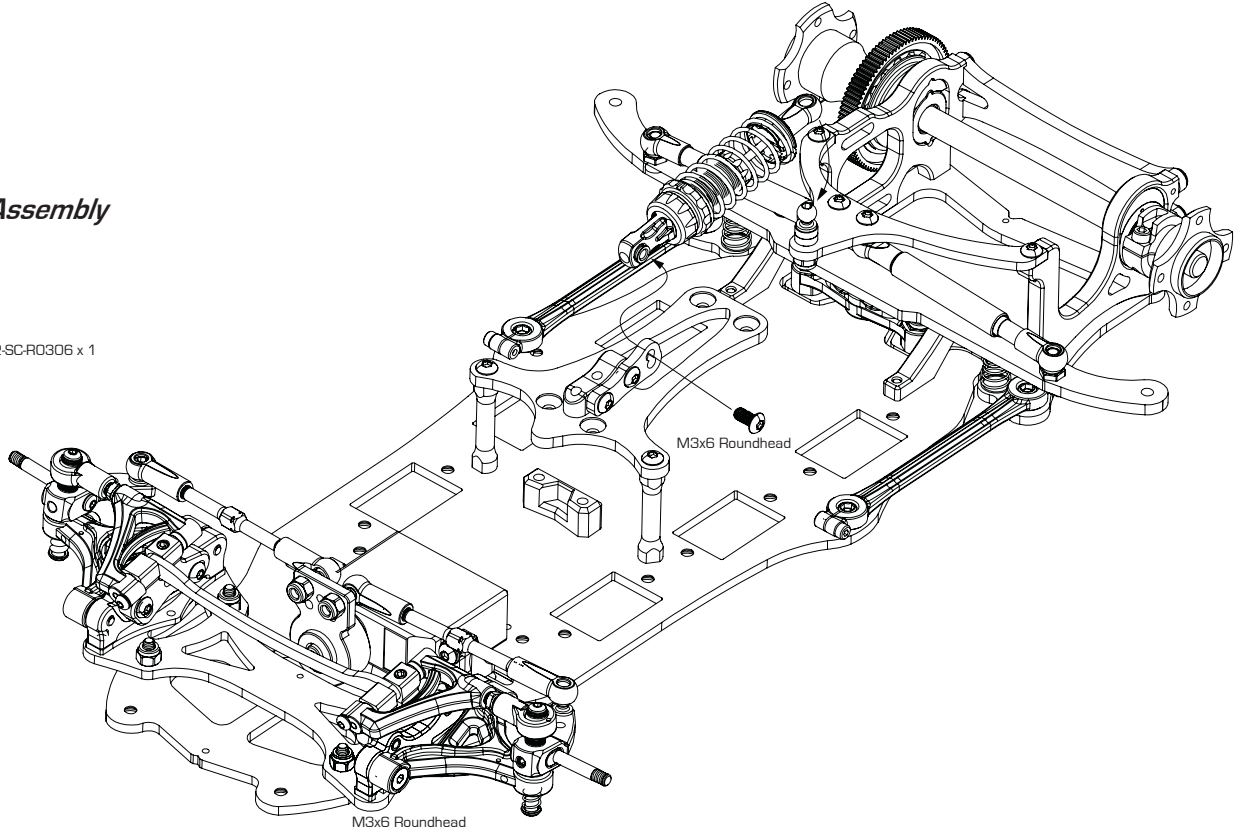
OPTIONAL LIGHTNING12 TBX SPRINGS:  
 C-02-VBC-5039 (Med. Soft/Silver)  
 C-02-VBC-5040 (Med. Hard/Black)

# 9

## TBX Shock Assembly

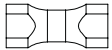


M3x6 Roundhead C-02-SC-R0306 x 1



# 10

## Front Bumper Assembly



14mm Aluminum Standoff B-02-VBC-5073 x 2



M3x6 Roundhead C-02-SC-R0306 x 2



M3x6mm Flat Head Screw C-02-SC-F0306 x 2



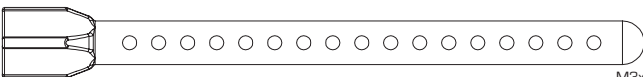
M3x10mm Flat Head Screw C-02-SC-F0310 x 2



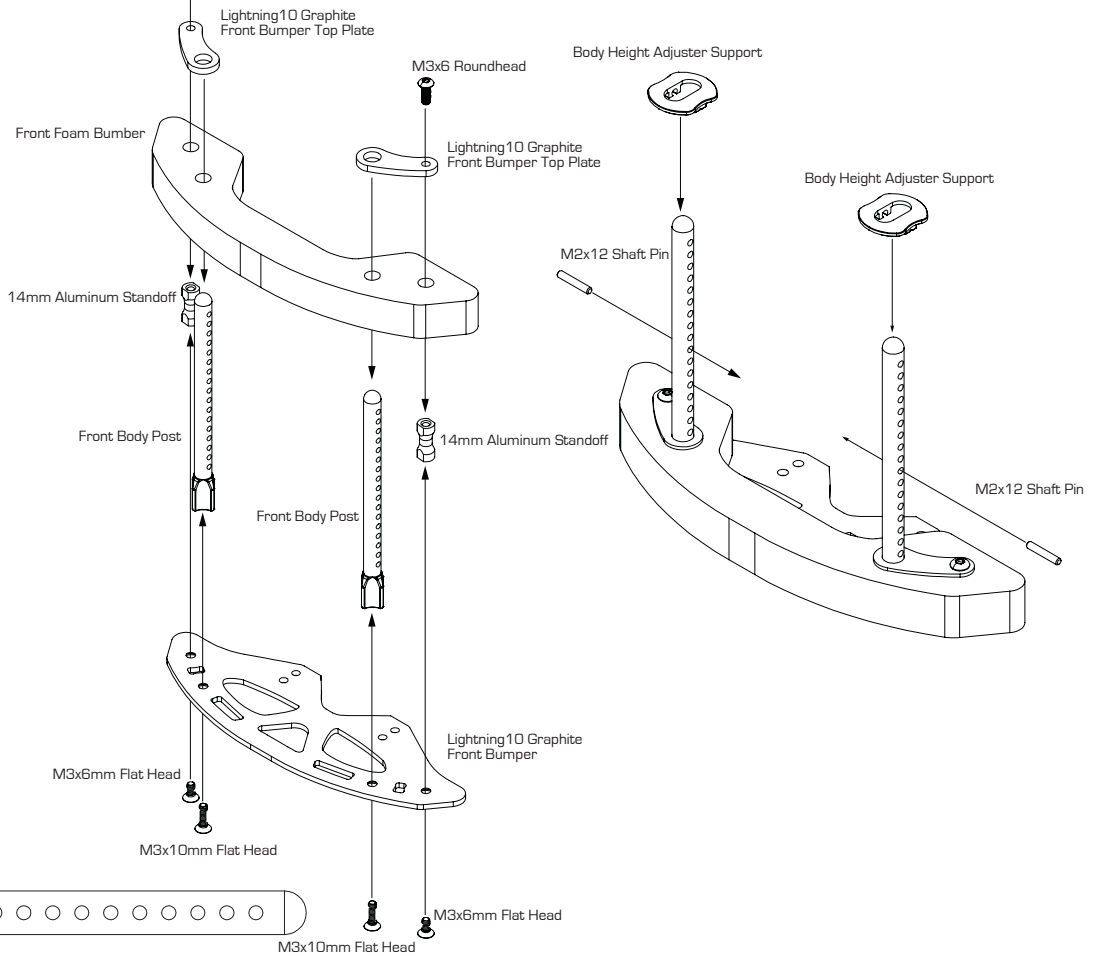
M2x12 Shaft Pin B-02-VBC-0022 x 2



Body Height Adjuster Support A-03-VBC-0015 x 2



Front Body Post A-03-VBC-0013 x 2



# 11

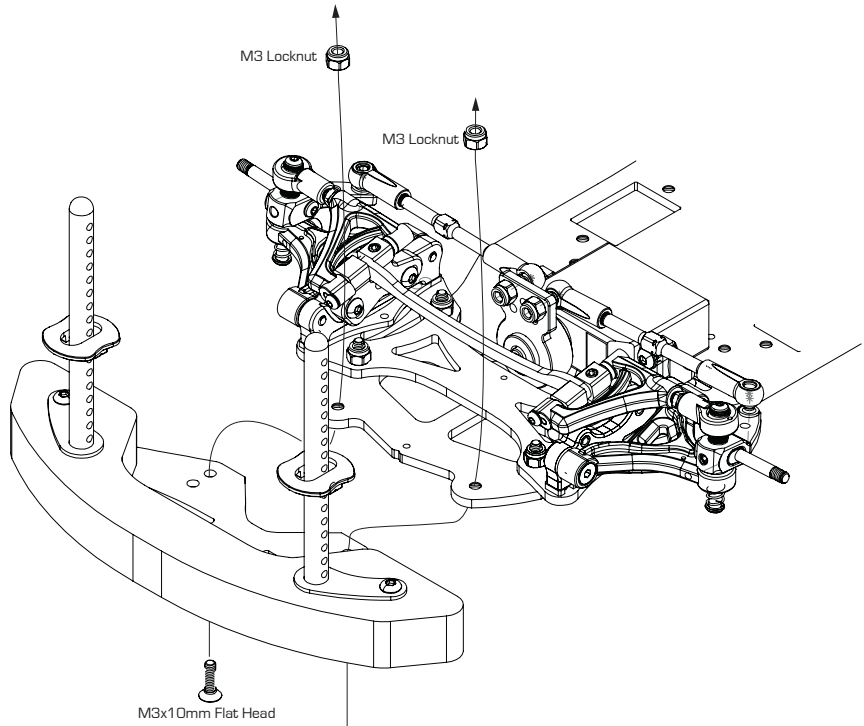
## Installing Front Bumper



M3 Locknut C-02-SC-NN03 x 2



M3x10mm Flat Head Screw C-02-SC-F0310 x 2



# 12

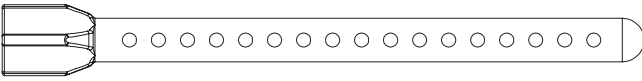
## Rear Body Post Assembly



M2x12 Shaft Pin B-02-VBC-0022 x 2



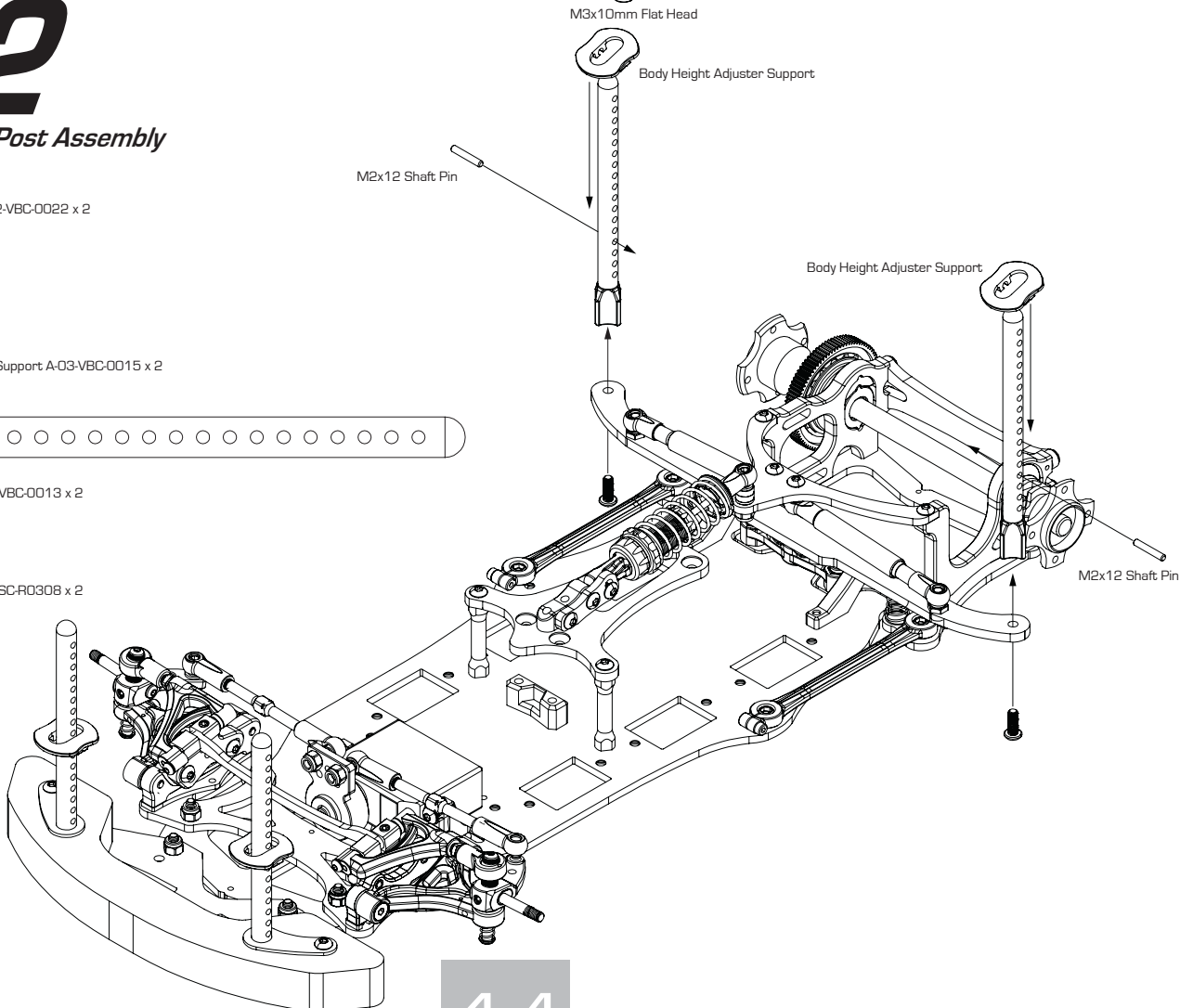
Body Height Adjuster Support A-03-VBC-0015 x 2



Front Body Post A-03-VBC-0013 x 2

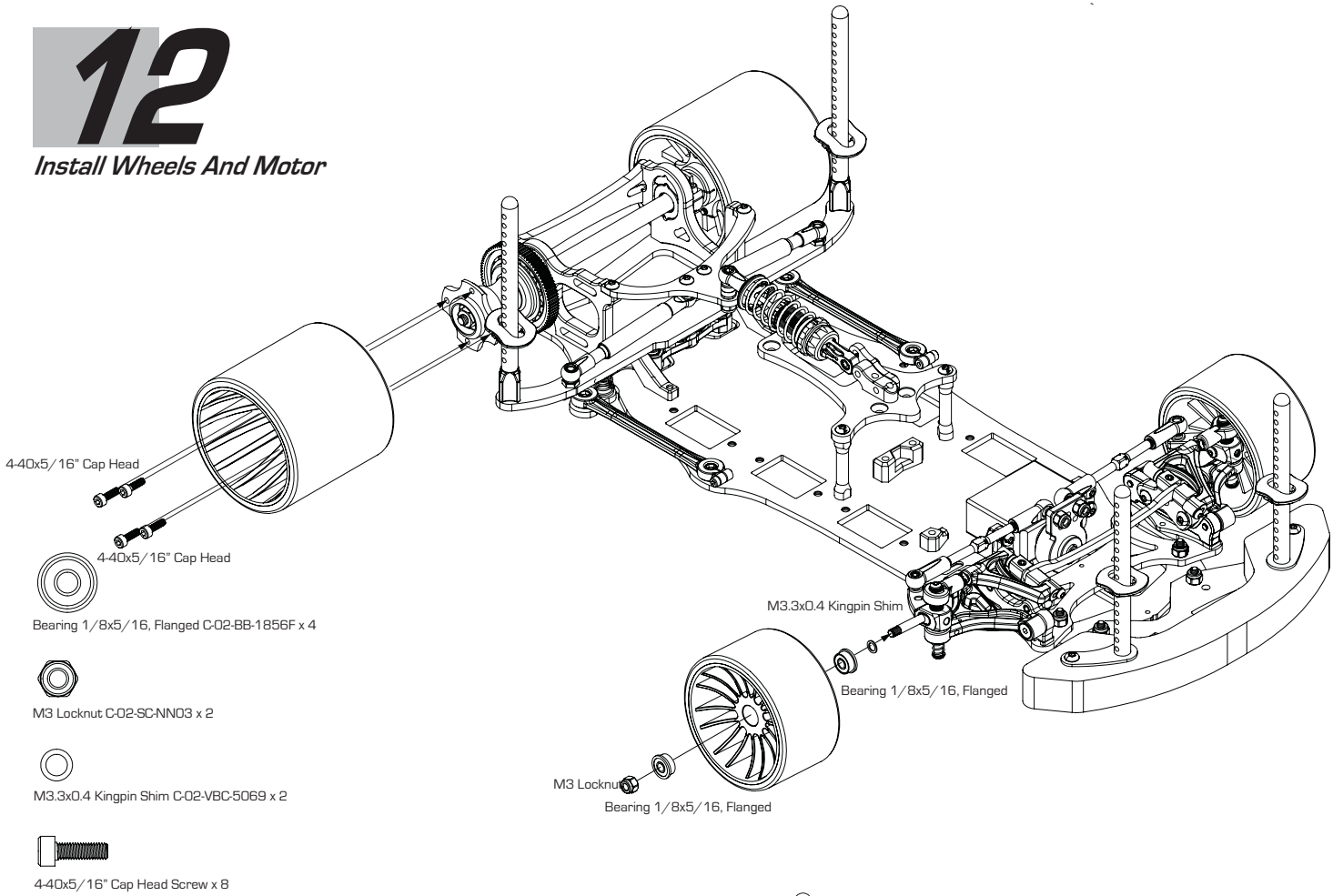


M3x8 Roundhead C-02-SC-R0308 x 2



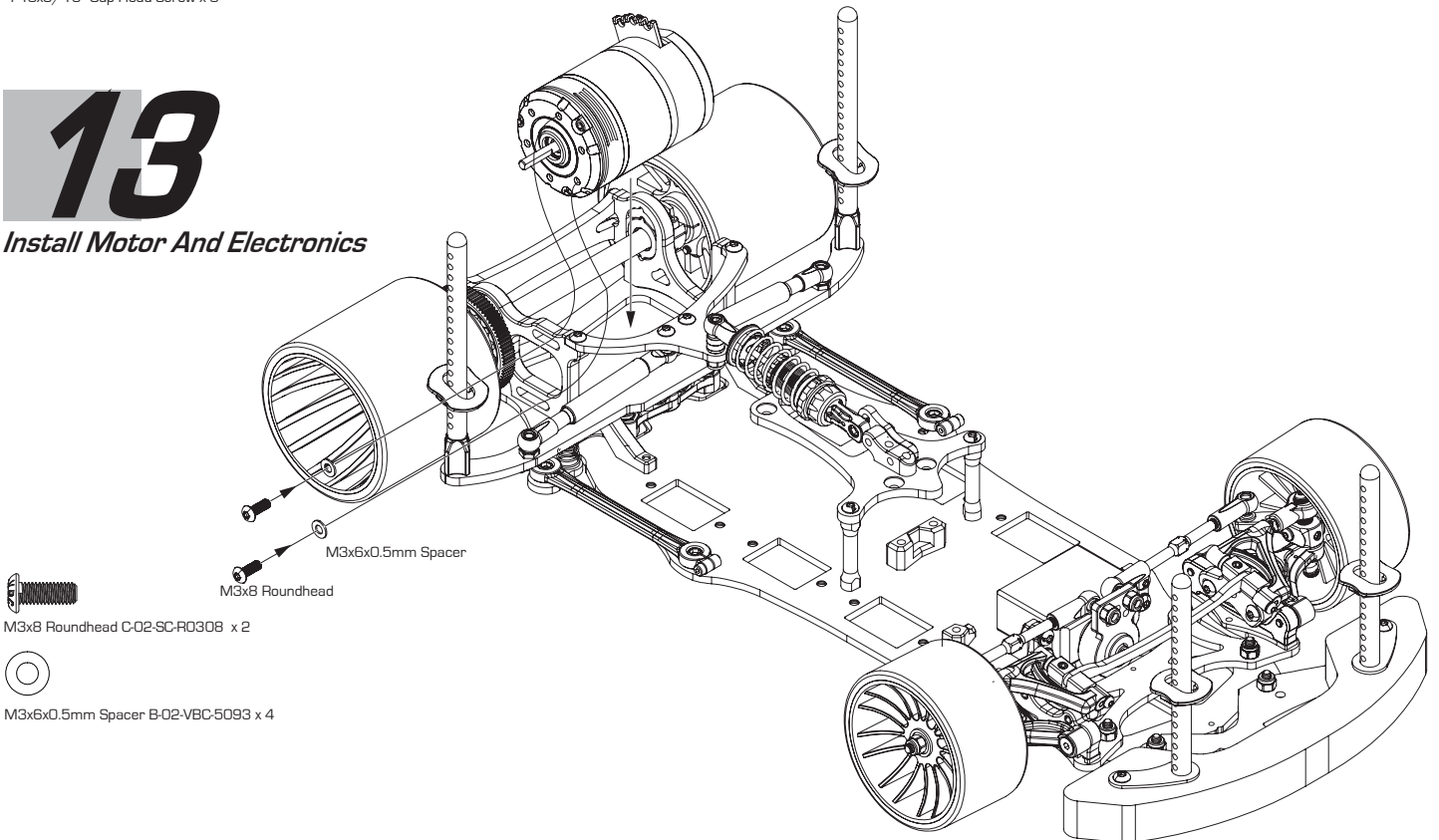
# 12

## Install Wheels And Motor



# 13

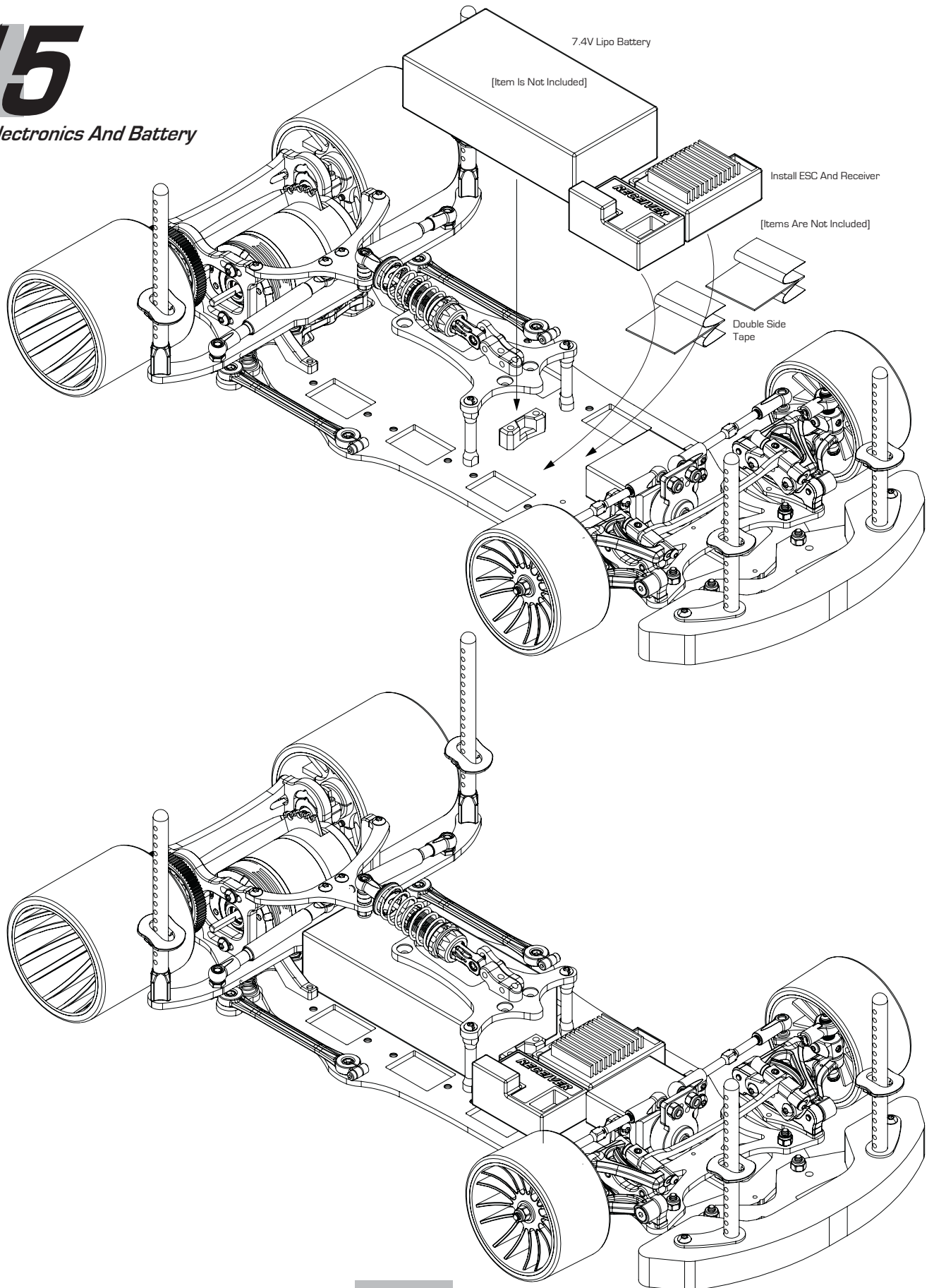
## Install Motor And Electronics





# 15

## Install Electronics And Battery





LIGHTNING10 PARTS LIST

Order Number	Package Descriptions	Part Number	Part Descriptions	Quantity in a Box
A-03-VBC-1047	Slide Spring Set for Lightning/Assoc RS series	A-03-VBC-1047	Slide Spring (Soft)	2
		A-03-VBC-1047	Slide Spring (Medium)	2
		A-03-VBC-1047	Slide Spring (Hard)	2
B-02-VBC-5073	14mm Aluminum Standoff	B-02-VBC-5073	14mm Aluminum Standoff	4
B-02-VBC-5074	Alum Side Spring Retainer for Lightning/Assoc RS s#	B-02-VBC-5074	Aluminum Side Spring Retainer	2
		C-02-BB-3814F	Bearing, 3/8 x 1/4, Flanged	2
		C-02-BB-3814	Bearing, 3/8 x 1/4	2
		A-02-VBC-5075	M4 Nylon Nuts	1
		C-02-VBC-5076	Bevelled Washer	3
		A-03-F-5022	64 Pitch 88 Spur Gear	1
		A-03-F-5022	Bevelled Washer	1
		A-03-F-5022	Lightning 10 Rear Diff Hub	1
		B-02-P50213	Lightning 10 Rear Diff Hub	1
		B-02-P50214	Lightning 10 Rear Diff Hub	1
D-05-VBC-0158	Ball Differential Set for Lightning 10	B-02-VBC-1001	Diff D Ring	16
		B-02-VBC-1001	Diff Seal O-ring	2
A-02-VBC-5075	M4 Nylon Nuts for Lightning/Assoc RS series	A-02-VBC-5075	M4 Nylon Nuts	2
C-02-VBC-5076	Bevelled Washer	C-02-VBC-5076	Bevelled Washer	6
A-03-P50232	64 Pitch 88 Spur Gear	A-03-P50232	64 Pitch 88 Spur Gear	1
B-02-P50231	Lightning 10 Carbon Rear Axle	B-02-P50231	Lightning 10 Carbon Rear Axle	1
B-02-P50213	Lightning 10 Left Rear Wheel Hub	B-02-P50213	Lightning 10 Left Rear Wheel Hub	1
B-02-P50214	Lightning 10 Rear Diff Hub	B-02-P50214	Lightning 10 Rear Diff Hub	1
B-02-VBC-5081	Trust Cone for Lightning/Assoc RS series	B-02-VBC-5081	Trust Cone	1
C-02-DB-0801S	1/8" Diff Balls for Lightning/Assoc RS series	C-02-DB-0801S	1/8" Diff Balls	8
B-02-VBC-1001	Diff D Ring	B-02-VBC-1001	Diff D Ring	2
B-02-VBC-5082	Diff Seal O-ring	B-02-VBC-5082	Diff Seal O-ring	10
A-01-VBC-5083	Lightning Graphite Lower Pod Plate	A-01-VBC-5083	Lightning Graphite Lower Pod Plate	1
A-01-P-50209	Lightning 10 Graphite Rear Shock Mount Plate	A-01-P-50209	Lightning 10 Graphite Rear Shock Mount Plate	1
C-02-BB-1856F	Bearing 1/8 x 5/16, Flanged for Lightning/Assoc RS	C-02-BB-1856F	Bearing 1/8 x 5/16, Flanged	2
C-02-BB-3814	Bearing, 3/8 x 1/4 for Lightning/Assoc RS series	C-02-BB-3814	Bearing, 3/8 x 1/4	2
C-02-BB-3814F	Bearing, 3/8 x 1/4, Flanged for Lightning/Assoc RS s#	C-02-BB-3814F	Bearing, 3/8 x 1/4, Flanged	2
D-05-VBC-0114	Lightning Axle Height Adjuster	A-02-VBC-5085	Axle Height Adjuster #1	2
		A-02-VBC-5086	Axle Height Adjuster #2	2
		A-02-VBC-5087	Axle Height Adjuster #3	2
		A-02-VBC-5088	Axle Height Adjuster #4	2
A-01-VBC-5131	Axle Height Adjuster Spacer	A-01-VBC-5131	Axle Height Adjuster Spacer	2
B-02-VBC-5128	Lightning A17075 Motor Mount	B-02-VBC-5128	Lightning A17075 Motor Mount	1
B-02-VBC-5129	Lightning A17075 Left Bulkhead	B-02-VBC-5129	Lightning A17075 Left Bulkhead	1
A-01-P50206	Lightning 10 Graphite Rear Pod Stud	A-01-P50206	Lightning 10 Graphite Rear Pod Stud	1
A-02-VBC-5092	Ball Connector 4.7x17mm	A-02-VBC-5092	Ball Connector 4.7x17mm	5
B-02-VBC-0019-20	3x5 5x2 Alum Spacer	B-02-VBC-0019-20	3x5 5x2 Alum Spacer	10
B-02-VBC-0019-10	3x5 5x1 Alum Spacer	B-02-VBC-0019-10	3x5 5x1 Alum Spacer	10

Order Number	Package Descriptions	Part Number	Part Descriptions	Quantity in a Box
C-02-SC-0040	4-40x5/16 Cap Head Screw	C-02-SC-0040	4-40x5/16 Cap Head Screw	20
C-02-SC-H2504	M2.5x8mm Roundhead Screw	C-02-SC-H2504	M2.5x8mm Roundhead Screw	20
C-02-SC-H2508	M2.5x10mm Cap Head Screw	C-02-SC-H2508	M2.5x10mm Cap Head Screw	20
C-02-SC-H2.0x6	M2.0x6mm Cap Head Screw	C-02-SC-H2.0x6	M2.0x6mm Cap Head Screw	20
C-02-SC-H2.0x8	M2.0x8mm Cap Head Screw	C-02-SC-H2.0x8	M2.0x8mm Cap Head Screw	20
C-02-SC-NND3	M3 Locknut	C-02-SC-NND3	M3 Locknut	20
B-02-VBC-5093	M3x6x0.5 Spacer	B-02-VBC-5093	M3x6x0.5 Spacer	20
C-02-SC-F0310	M3x10mm Flathead Screw	C-02-SC-F0310	M3x10mm Flathead Screw	20
C-02-SC-F0312	M3x12mm Flathead Screw	C-02-SC-F0312	M3x12mm Flathead Screw	20
C-02-SC-F0306	M3x6mm Roundhead Screw	C-02-SC-F0306	M3x6mm Roundhead Screw	20
C-02-SC-F0308	M3x8mm Roundhead Screw	C-02-SC-F0308	M3x8mm Roundhead Screw	20
C-02-SC-F0306	M3x6mm Roundhead Screw	C-02-SC-F0306	M3x6mm Roundhead Screw	20
C-02-SC-S5-0308	M3x8mm Set Screw	C-02-SC-S5-0308	M3x8mm Set Screw	20
Option Items for Lightning 10				
C-02-VBC-5099	TBX Spring(Lead-Soft) for Lightning/Assoc RS series	C-02-VBC-5099	Lightning TBX Spring (Lead Soft)	2
C-02-VBC-5040	TBX Spring (Lead-Hard) for Lightning/Assoc RS series	C-02-VBC-5040	Lightning TBX Spring (Lead Hard)	2
C-02-VBC-5041	Front Springs (Soft) for Lightning/Assoc RS series	C-02-VBC-5041	Front Springs (Soft) for Lightning 1/12	2
C-02-VBC-5043	Front Springs (Hard) for Lightning/Assoc RS series	C-02-VBC-5043	Front Springs (Hard) for Lightning 1/12	2
D-05-VBC-0108	Lightning 12 Height Adjust Spacer Set (0.5, 1.0mm)	A-01-VBC-5046	Lightning 12 Height Adjust Spacer, 0.5mm	2
		A-01-VBC-5047	Lightning 12 Height Adjust Spacer, 1.0mm	2
D-05-VBC-0109	Lightning 12 Front Upper Arm Spacer Set (0.5, 1.0mm)	A-01-VBC-5049	Lightning 12 Front Upper Arm Spacer, 0.5mm	2
		A-01-VBC-5050	Lightning 12 Front Upper Arm Spacer, 1.0mm	2
A-03-VBC-1047	Slide Spring Set for Lightning/Assoc RS series	A-03-VBC-1047	Slide Spring (Soft)	2
		A-03-VBC-1047	Slide Spring (Medium)	2
		A-03-VBC-1047	Slide Spring (Hard)	2
C-02-G-50254	TIN Coated 2mm Upper Pin for Lightning Series	C-02-G-50254	TIN Coated 2mm Upper Pin for Lightning Series	2
C-02-G-50255	TIN Coated 4mm Upper Pin for Lightning Series	C-02-G-50255	TIN Coated 4mm Upper Pin for Lightning Series	2
C-02-G-50256	TIN Coated TBX Shock Shaft	C-02-G-50256	TIN Coated TBX Shock Shaft	2
C-02-G50222	Low CG Brass Weight 23.5gm	C-02-G50222	Low CG Brass Weight 23.5gm	2
C-02-P90211	Lightning Inline Front Axle	C-02-P90211	Lightning Inline Front Axle	2



