

20C10

1:10 RWD COMPETITION DRIFT KIT

#30134 DC10 Drift Car Kit



1:10 Scale RWD Electric On Road Competition Drift Car Kit Manual



CHAMPIONS *by* DESIGN

TeamAssociated.com

TEAM ASSOCIATED

:: Introduction

Thank you for purchasing this Team Associated product. This assembly manual contains instructions and tips for building and maintaining your new vehicle. Please take a moment to read through the manual and familiarize yourself with the steps. We are continually changing and improving our designs; therefore, actual parts may appear slightly different than the illustrations. New parts will be noted on supplementary sheets located in the appropriate parts bags.

Check each bag for these sheets before you start to build.

Check www.rc10.com for the latest versions of our instruction manuals.

:: DC10 Kit Features

Since 1964, Team Associated has proven to be the leader in competition racing. And with its roots in on-road racing, it makes sense that our Area 51 engineers would develop the ultimate RC drift car, the DC10. In RC drifting, vehicle balance is key. With the many suspension and chassis tuning options of the DC10, drivers can setup their car with precision. From camber, caster, and kingpin inclination (KPI) to motor and battery position, the Team Associated DC10 1:10 Scale RWD Competition Drift Kit has it all!

- Adjustable wheel hexes allow the track width to accommodate a wide variety of body and wheel combinations.
- A convenient quick-release battery box gets you back into the door-to-door tandem action.
- With camber, caster, toe-in, KPI, and more, there are many suspension tuning options.
- The motor position can be mounted high, and battery moved back for more rear weight bias.
- Our race-proven threaded aluminum oil-filled shocks make transitions smooth and reliable.
- Dual servo mounting locations on the carbon fiber upper deck for the perfect weight balance.
- +6mm transmission height adjustment insert allows for higher roll center and larger spur gear capabilities.
- Maximum steering throw provides superior control through drifting turns

:: Additional

Your new DC10 Kit comes unassembled and requires the following items for completion (refer to AssociatedElectrics.com for suggestions):

- | | |
|--|---|
| • RC 2-channel surface frequency radio system | • Battery charger
(a peak detection charger, or LiPo compatible charger) |
| • AA-size batteries for transmitter | • 2-cell LiPo battery pack |
| • Electronic Speed Control ("ESC") | • 1:10 Drift Body |
| • Steering servo | • Polycarbonate specific spray paint |
| • RC electric motor | • Cyanoacrylate glue ("CA") (#1697) |
| • Pinion gear, size determined by type/turn or kV of motor | • Thread locking compound (#1596) |
| | • Tires and Inserts, Fronts and Rears |

:: Other Helpful Items

- | | | | | |
|--|----------------------------------|---------------------------------|-----------------------------|----------------|
| • Silicone Shock Fluid (Refer to AssociatedElectrics.com for complete listings) | • FT Body Scissors (#1737) | • FT Body Reamer (#1499) | • Shock Pliers (#1681) | • Wire Cutters |
| • FT Hex/Nut Wrenches (#1519) | • Needle Nose Pliers | • Calipers or a Precision Ruler | • FT Ballcup Wrench (#1579) | • Hobby Knife |
| • FT Universal Tire Balancer (#1498) | • Green Slime shock lube (#1105) | | • Soldering Iron | |
| • FT Dual Turnbuckle Wrench (#1114) | | | | |

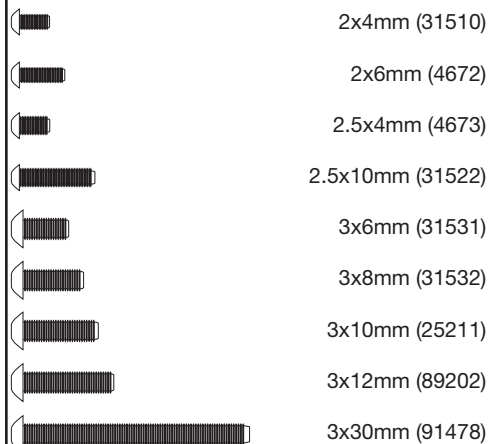
Associated Electrics, Inc.
21062 Bake Parkway.
Lake Forest, CA 92630



Customer Service
Tel: 949.544.7500
Fax: 949.544.7501

Hardware - 1:1 Scale View

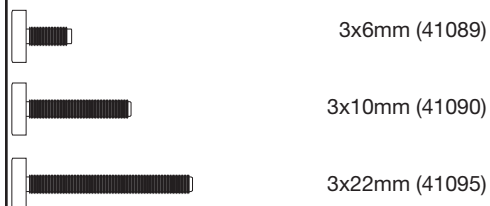
Button Head (bhcs)



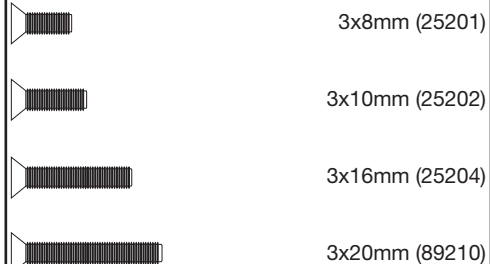
Cap Head (shcs)



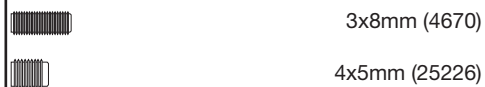
LP Socket Head (lp shcs)



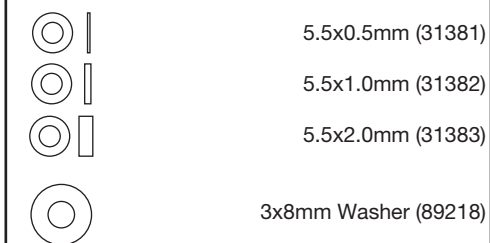
Flat Head (fhcs)



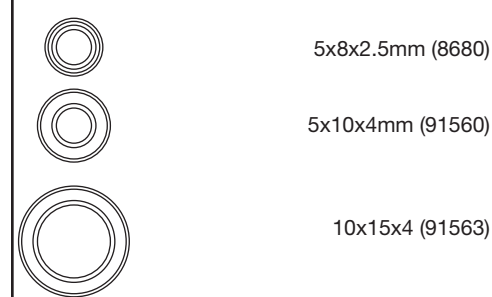
Set Screws



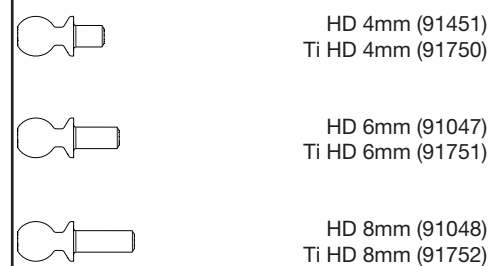
Shims and Washers



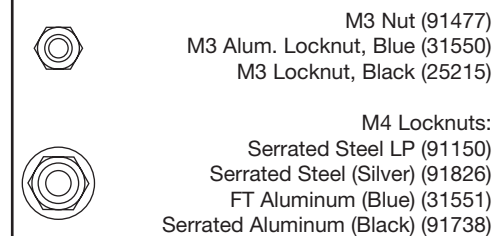
Ball Bearings



Ballstuds



Nuts (lock/plain)



Notes:

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Notes



This symbol indicates a special note or instruction in the manual.

x2

This symbol indicates the number of the same part that is required.

2

This symbol indicates the order within a step to assemble parts.



This symbol indicates there are optional FT parts available



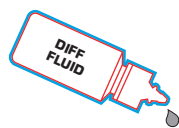
This symbol indicates a Racers Tip.



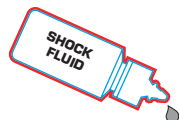
There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardware with the correct drawing until you find the exact size. Each part in the foldout has a number assigned to it for ordering replacement parts.



This symbol indicates where Thread Lock Adhesive should be applied. *not included



This symbol indicates where Diff Fluid should be applied.



This symbol indicates where Shock Fluid should be applied.



This symbol indicates where FT Silicone Grease should be applied. *not included



This symbol indicates where FT Diff Lube should be applied. *not included



This symbol indicates where Black Grease should be applied.



This symbol indicates where Green Slime can be applied. *not included

:: Bag 1 - Step 1

LEFT SIDE

25226
4x5mm
Set Screw

89279
3x45mm
SHCS

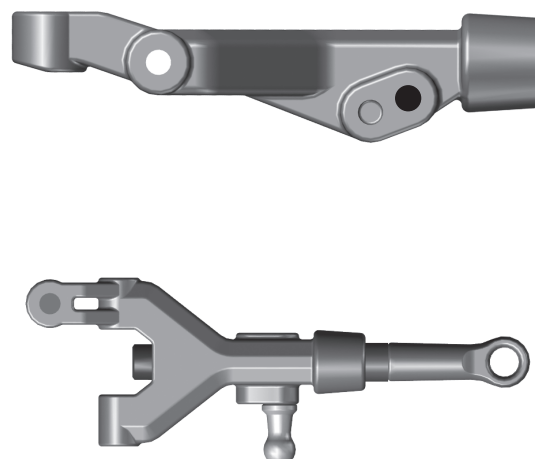
72204
Front Lower
Arm - Left

72232
Shock Mount
Ballstuds

72221
Ball Cup
(3.5mm - 18mm)

72236
Spacer
3x6x6.5mm
Aluminum

Build left and right sides



:: Bag 1 - Step 2

72205
C Block

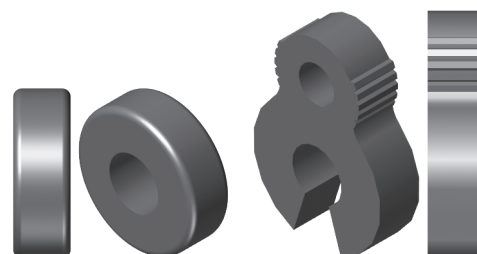
72205
A / B Block

72200
DC10 Chassis
Carbon Fiber

25202 x4
3x10mm
FHCS



You have the option of using standard 2mm washers or 2mm clips for the inner hinge pins and front / rear arm adjustments



:: Bag 1 - Step 3



Factory recommended settings
for wheelbase:

Front Arms: Middle
(2mm spacers front and 2mm spacers rear)

72204 x4
Arm Spacer,
2mm

72230 x4
Hinge Pin
Pivot Ball

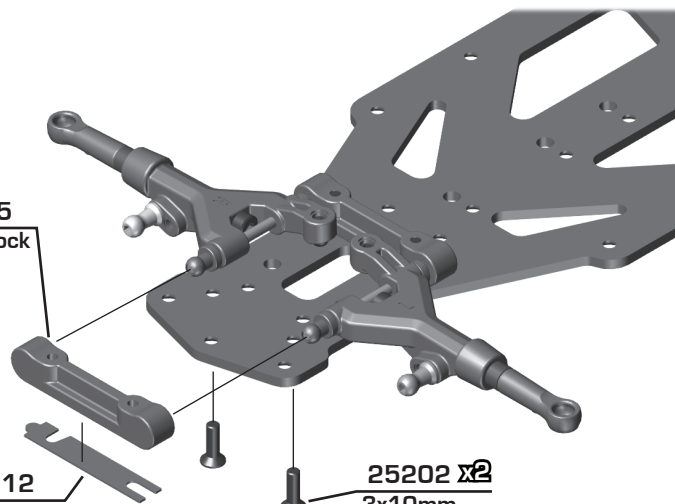
72229 x2
Hinge Pin,
Inner

Build left and right sides

72205
A / B Block

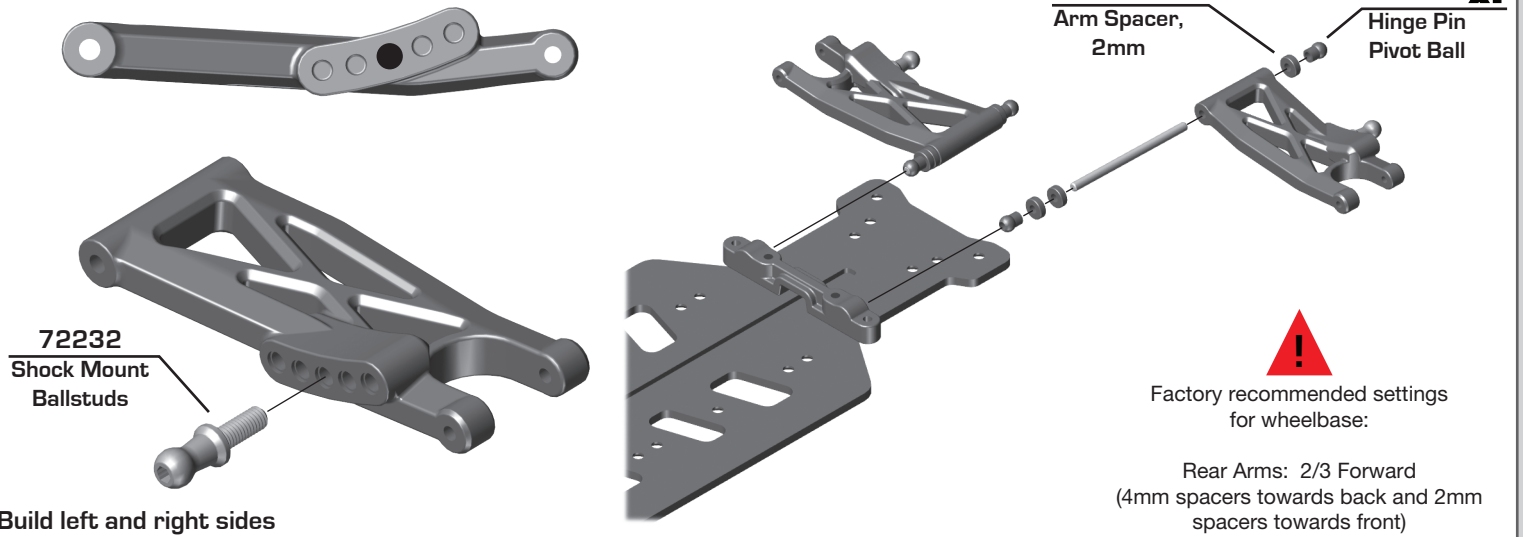
72212
Arm Mount
Spacer, 0.5mm

25202 x2
3x10mm
FHCS

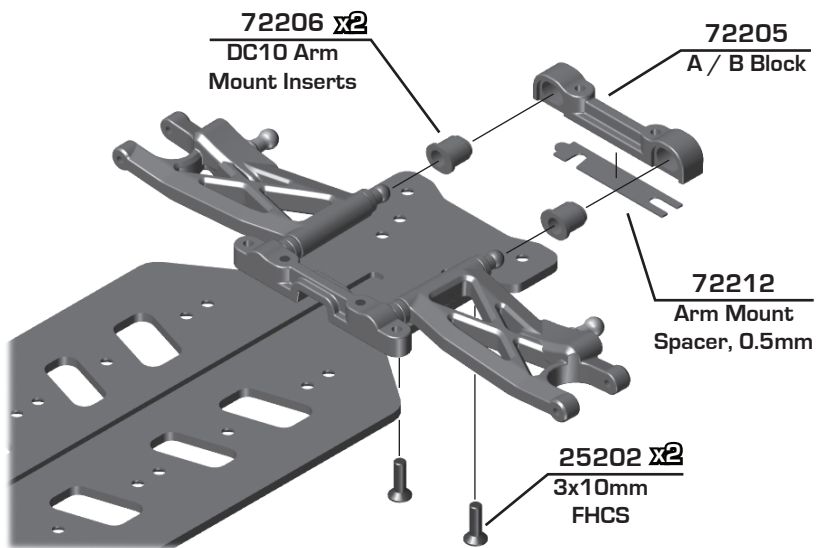


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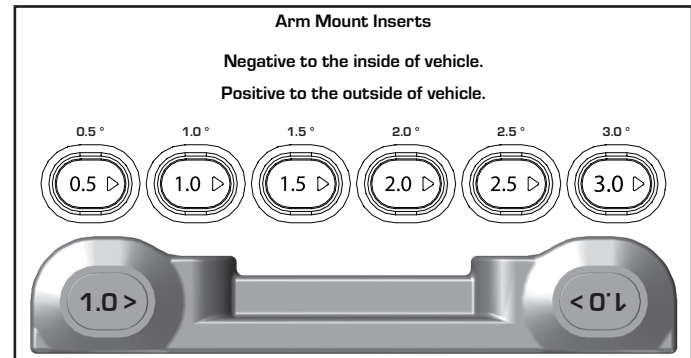
LEFT SIDE



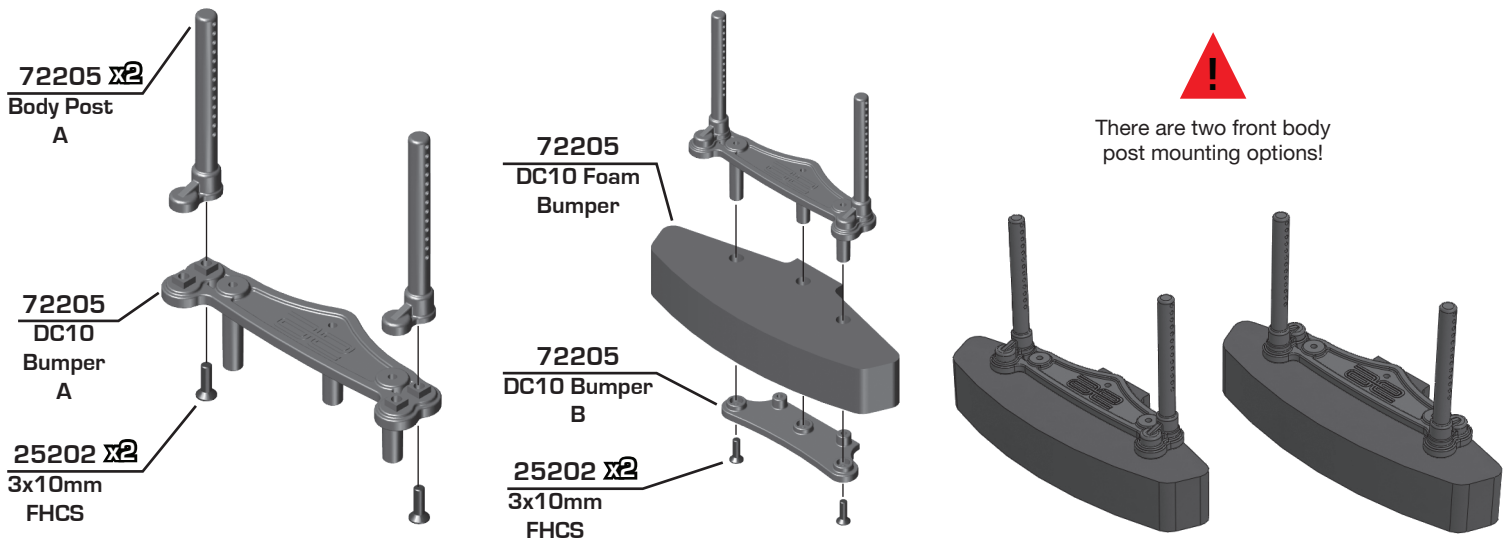
:: Bag 1 - Step 5



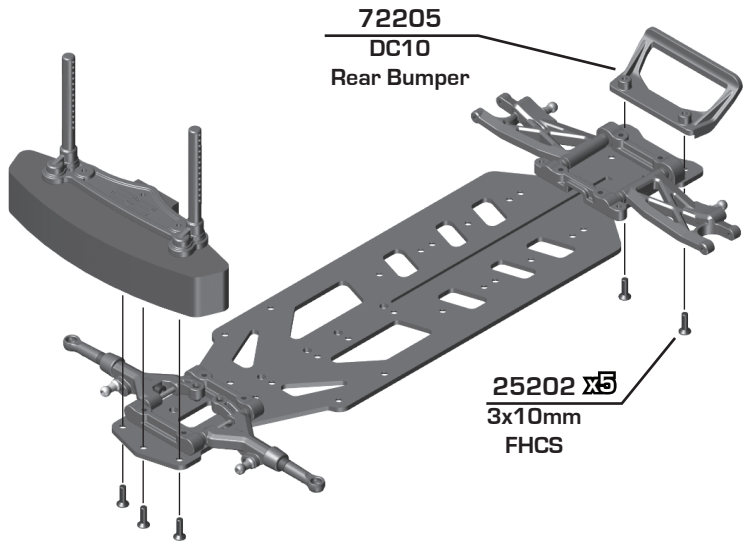
Factory Rear Toe Setting:
1.0 degree - arrow inward.



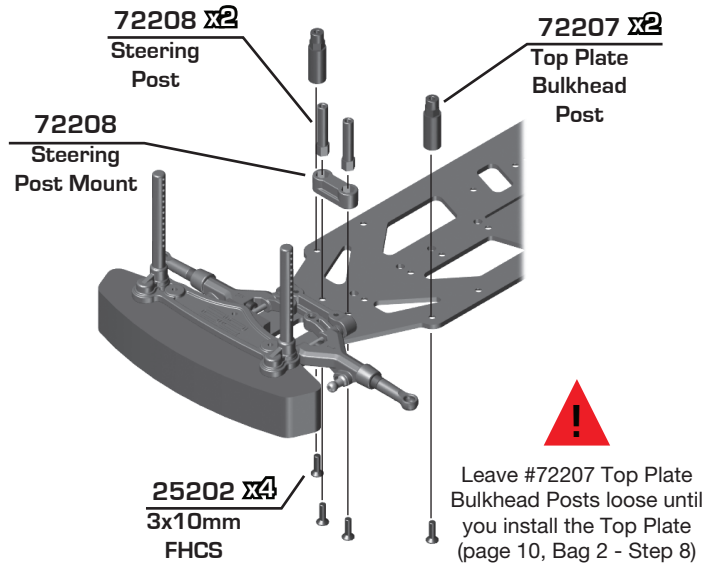
:: Bag 1 - Step 6



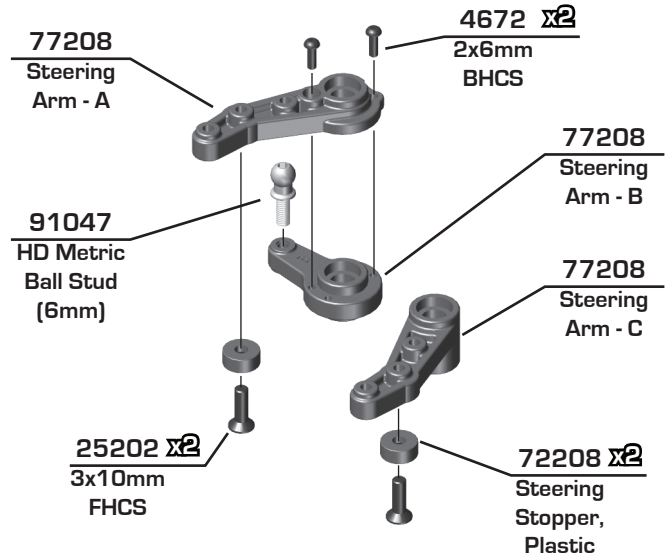
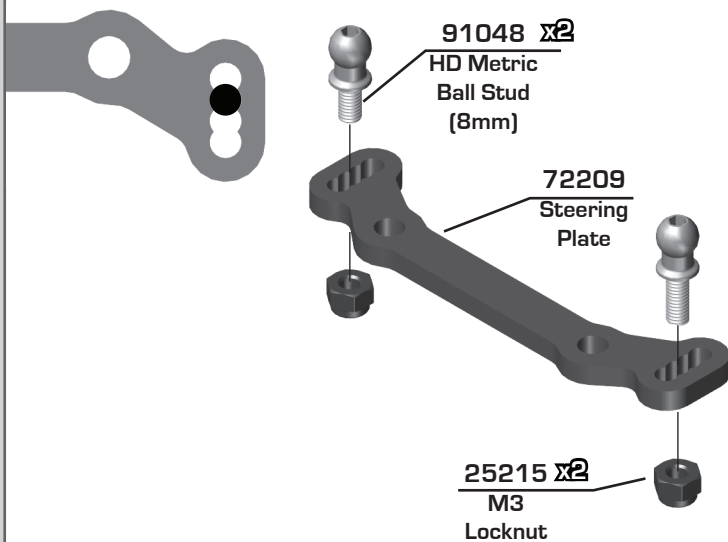
:: Bag 1 - Step 7



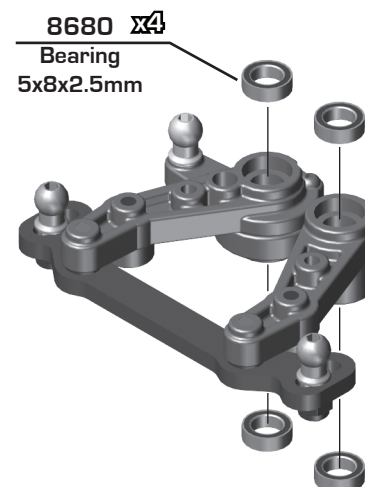
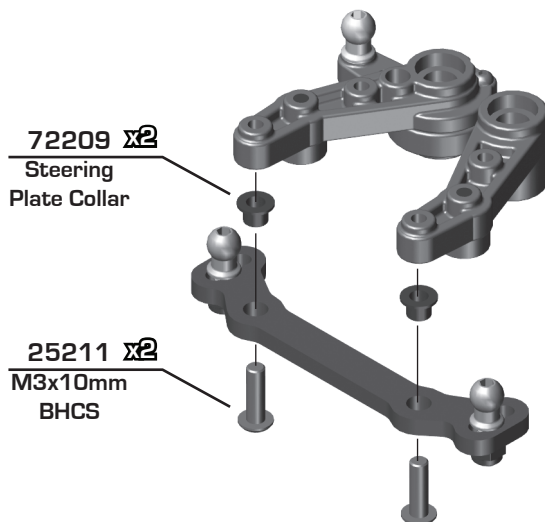
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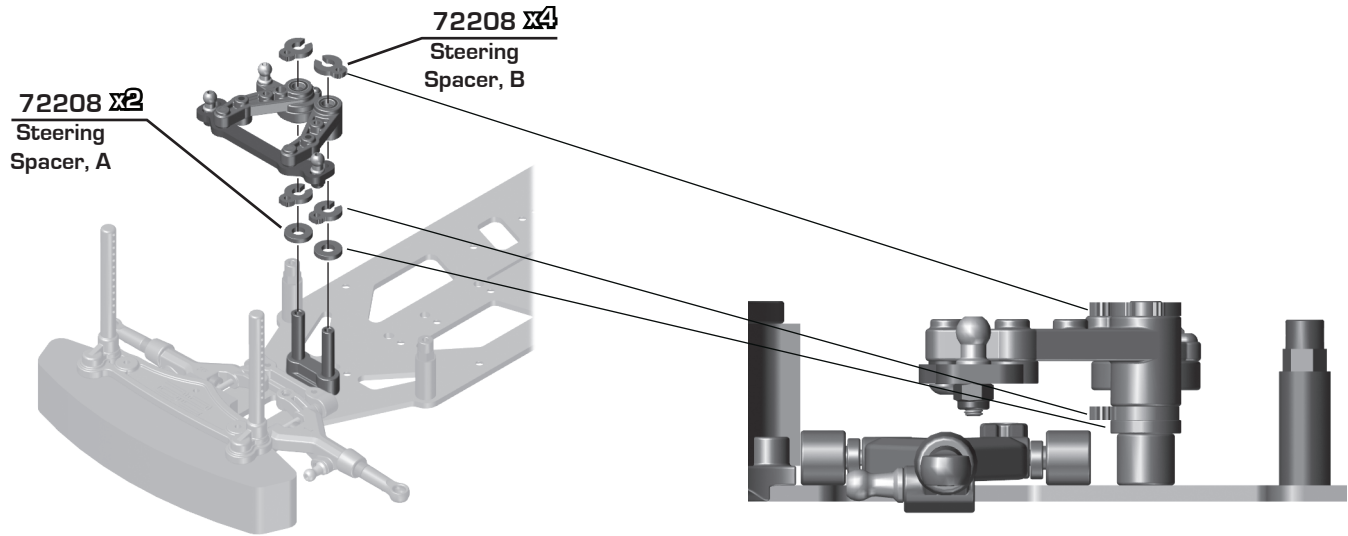
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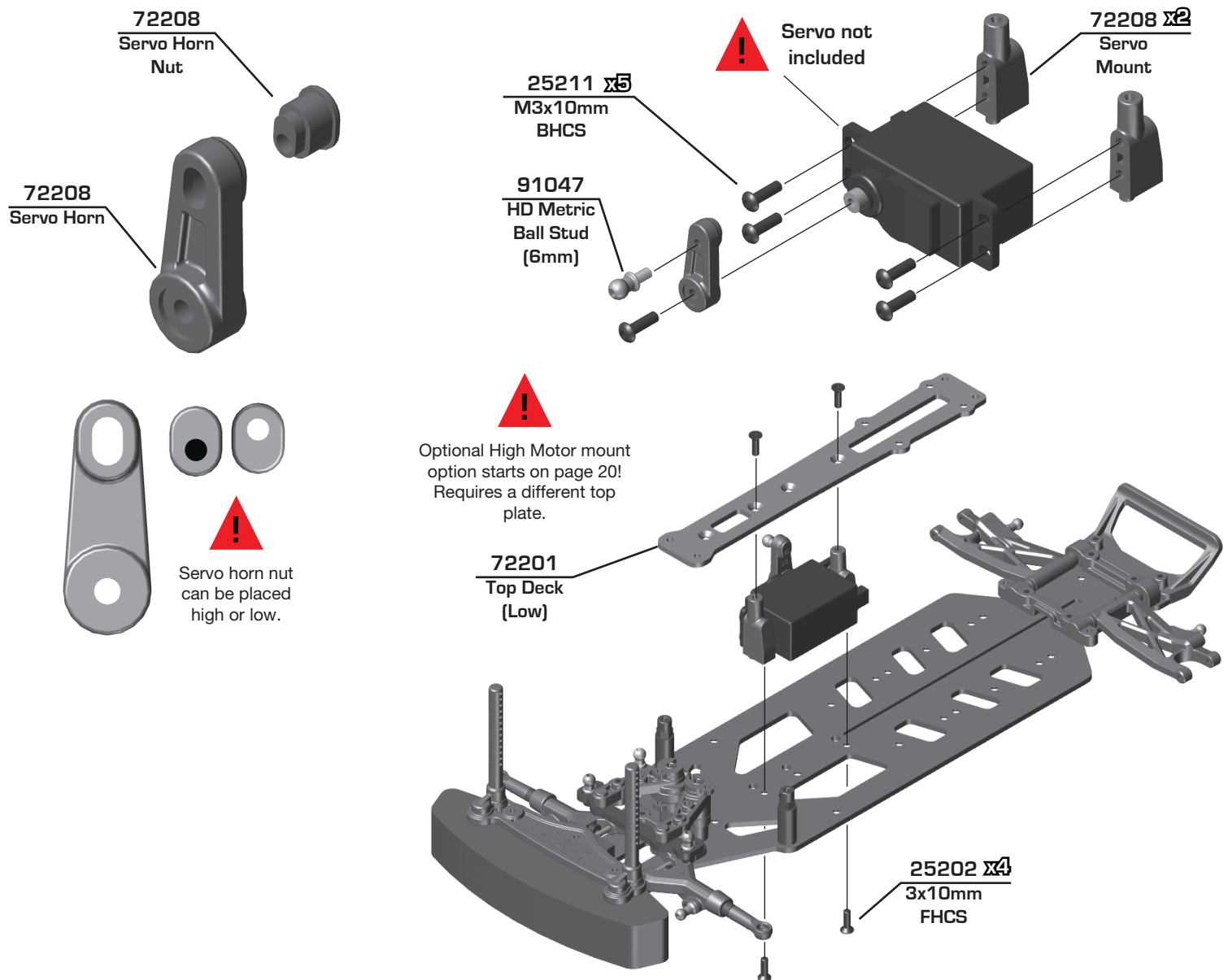
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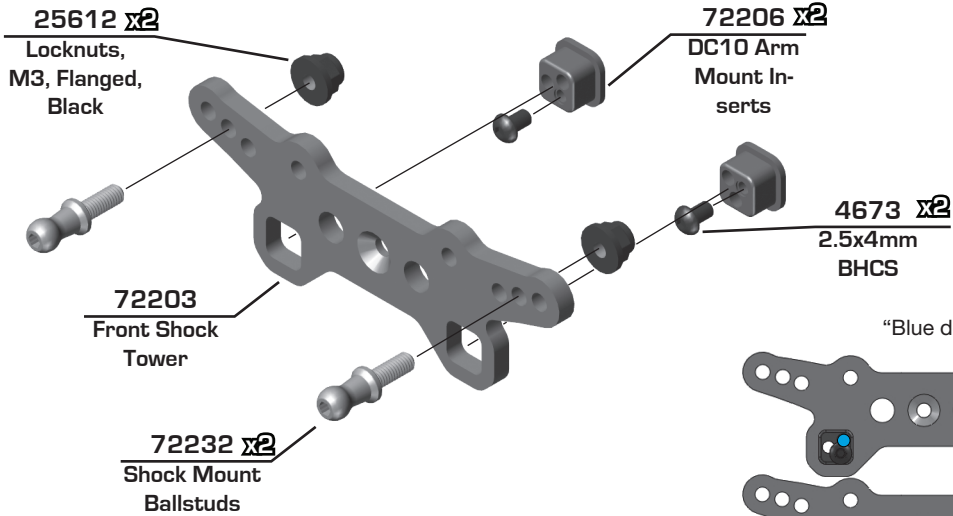
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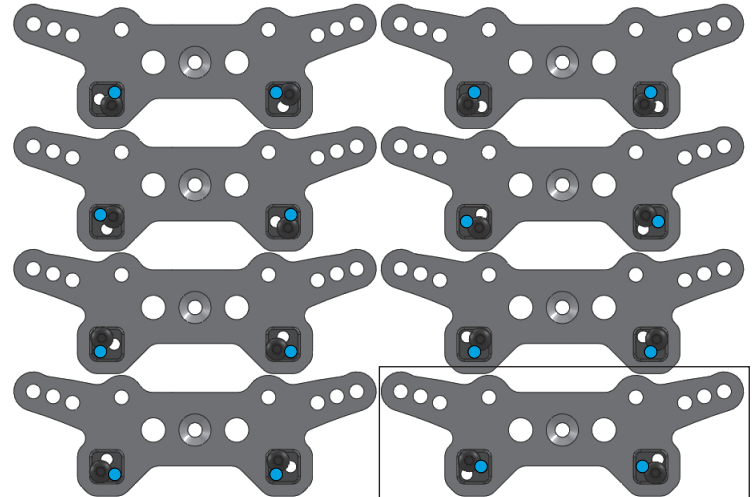
:: Bag 2 - Step 5



:: Bag 1 and 2 - Step 6



"Blue dot designates upper hinge pin location".

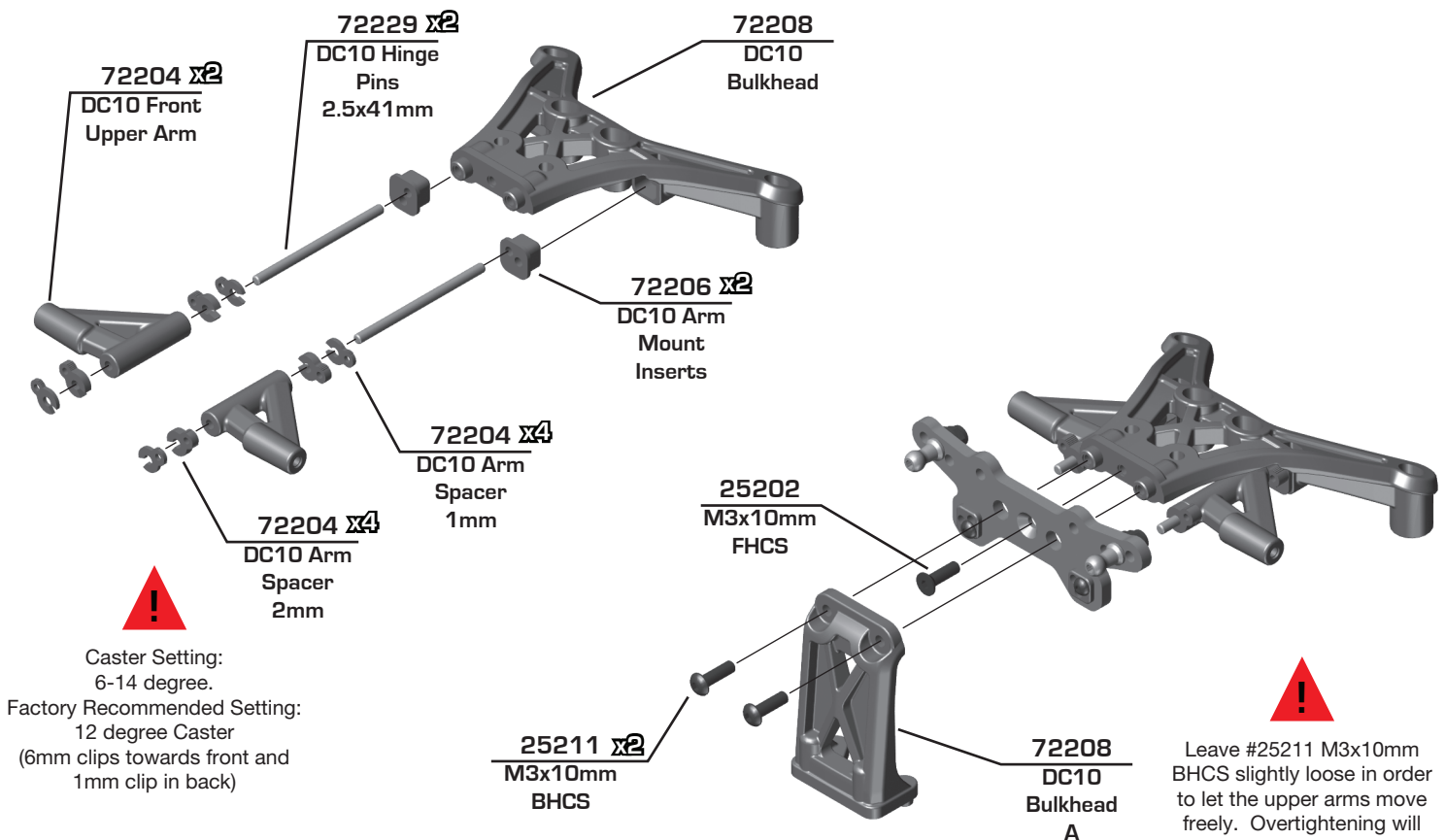


Factory Setting:

Front Upper Arm Roll Center Adjustment:

This is for roll center and track width. The lower the roll center the more stable the car is. The higher the roll center the more reactive the car is. There are no degree settings here, just roll center adjustment.

:: Bag 1 and 2 - Step 7

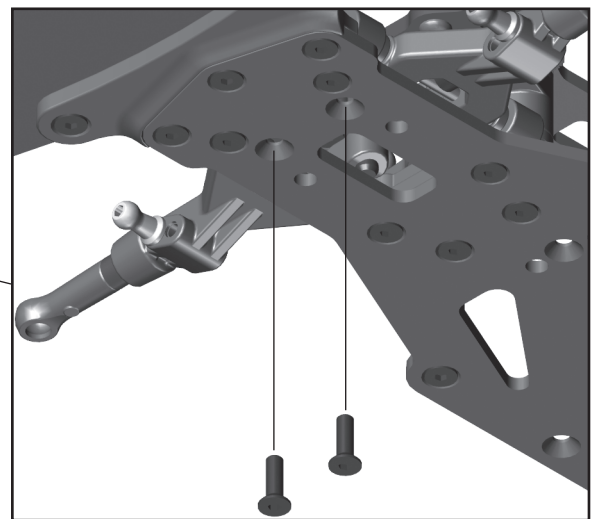
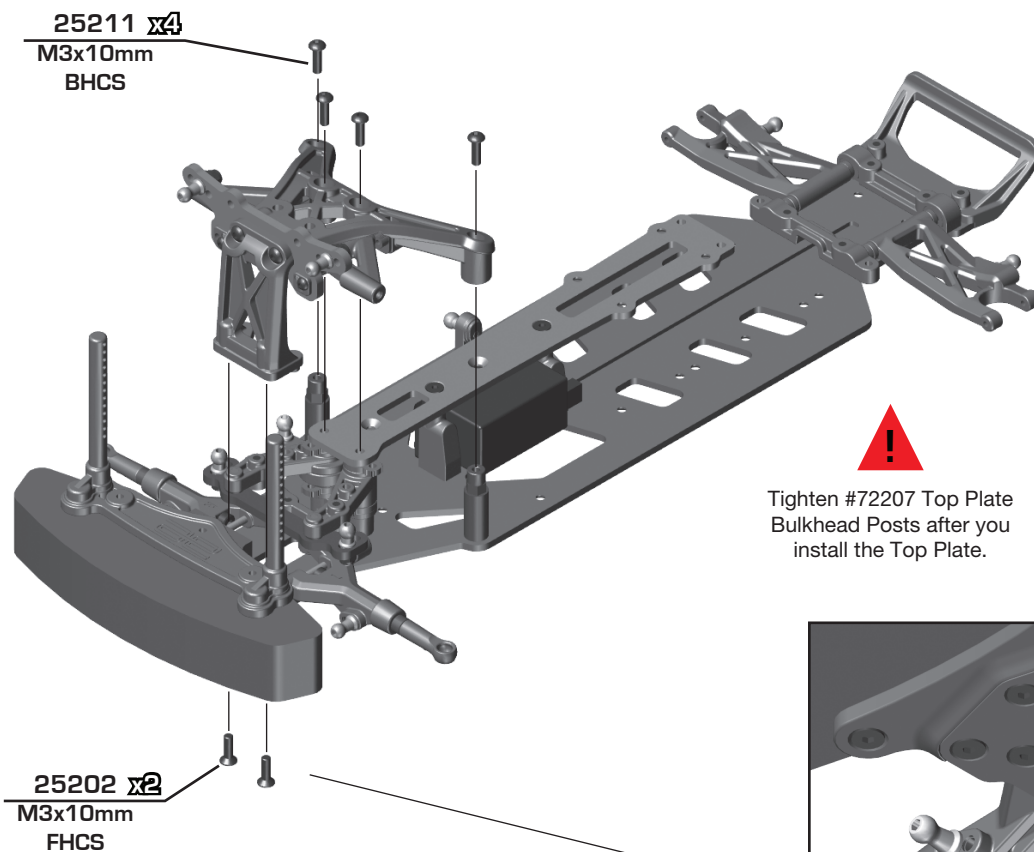


Caster Setting:
6-14 degree.
Factory Recommended Setting:
12 degree Caster
(6mm clips towards front and
1mm clip in back)

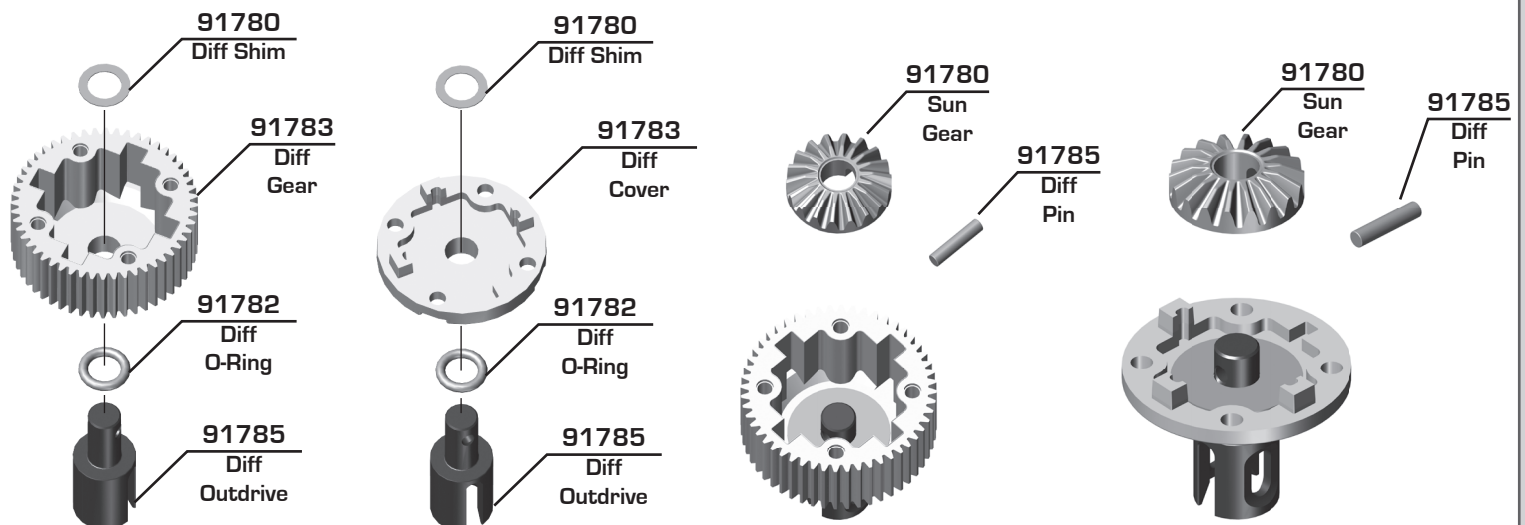


Leave #25211 M3x10mm
BHCS slightly loose in order
to let the upper arms move
freely. Overtightening will
create bind in the arms.

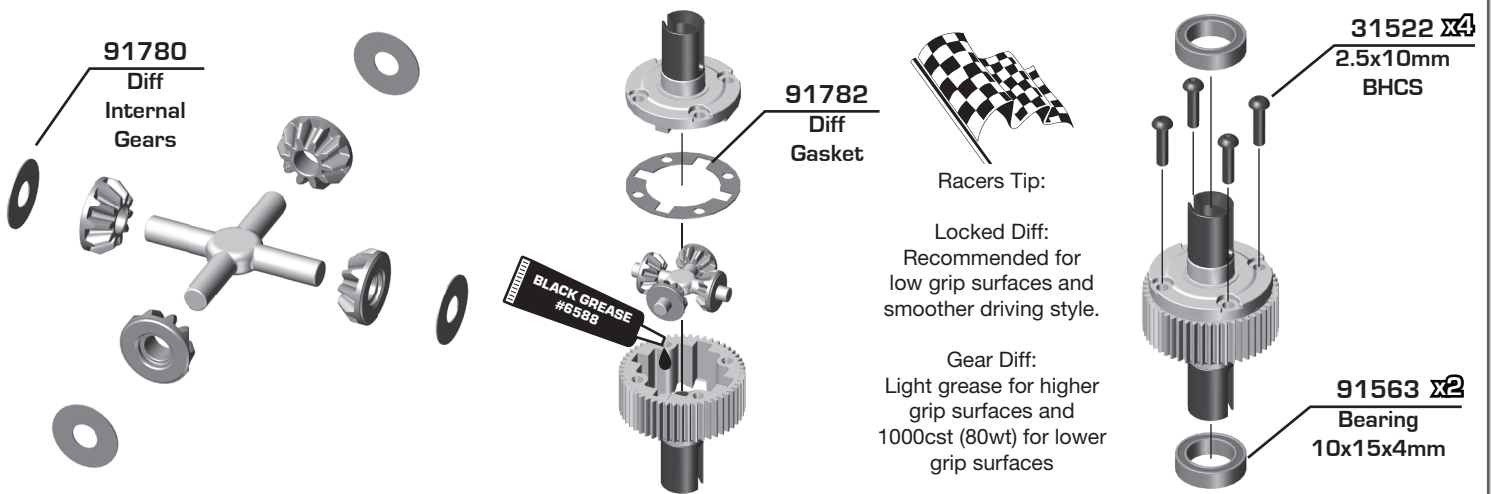
Bag 2 - Step 8



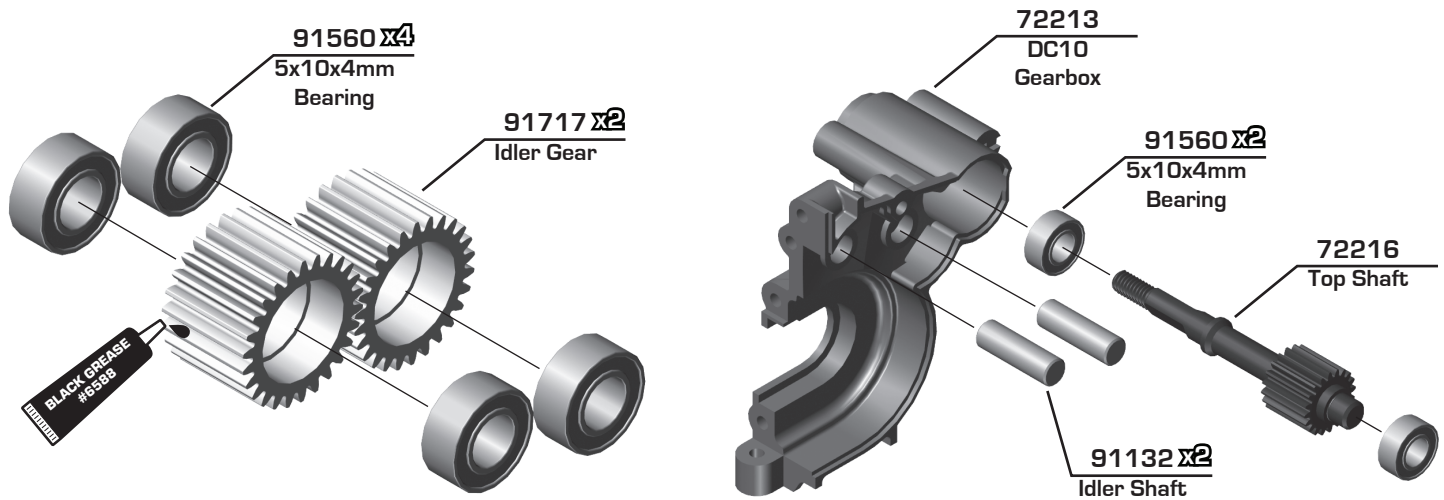
Bag 3 and 9 - Step 1



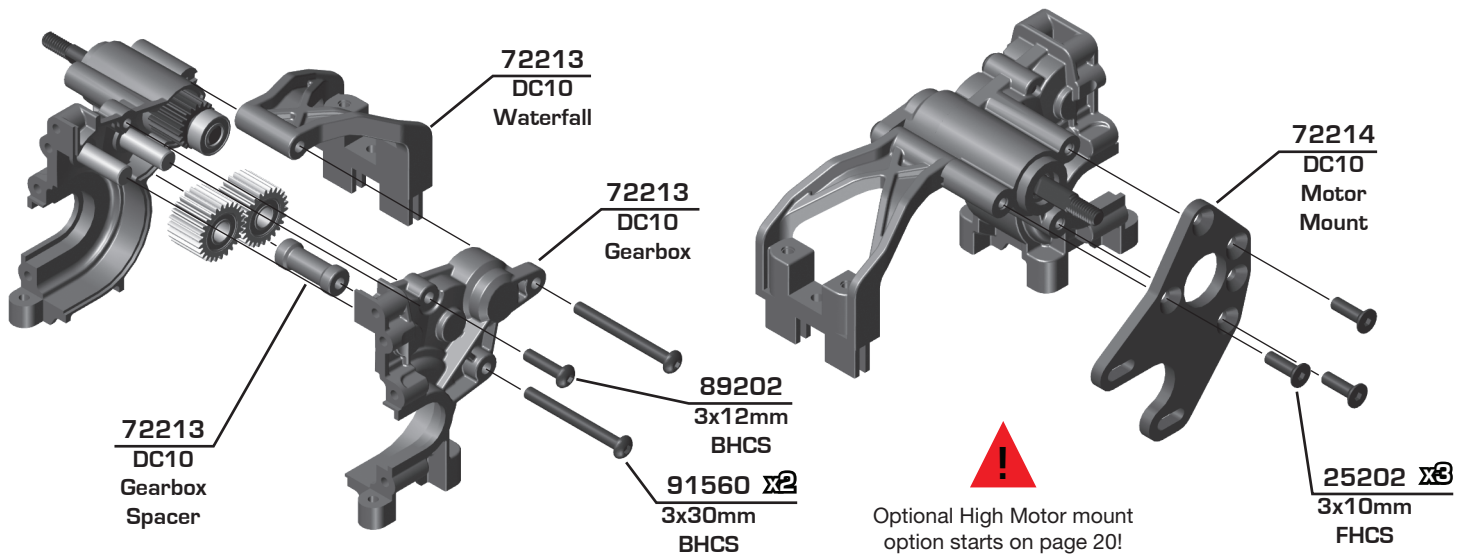
Bag 3 and 9 - Step 2



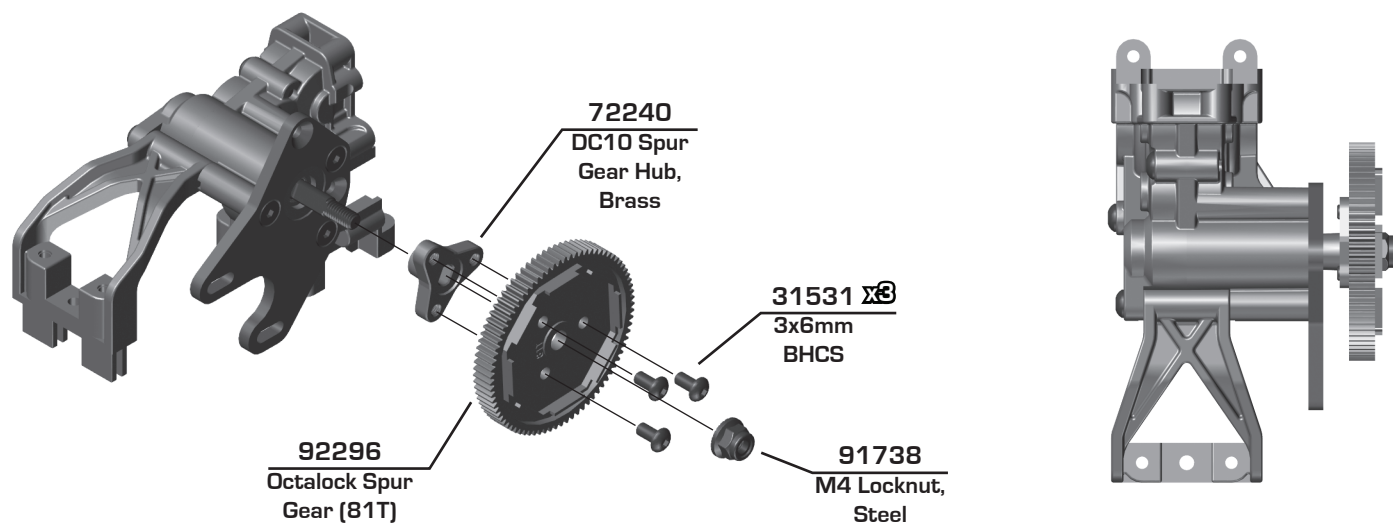
Bag 4 - Step 1



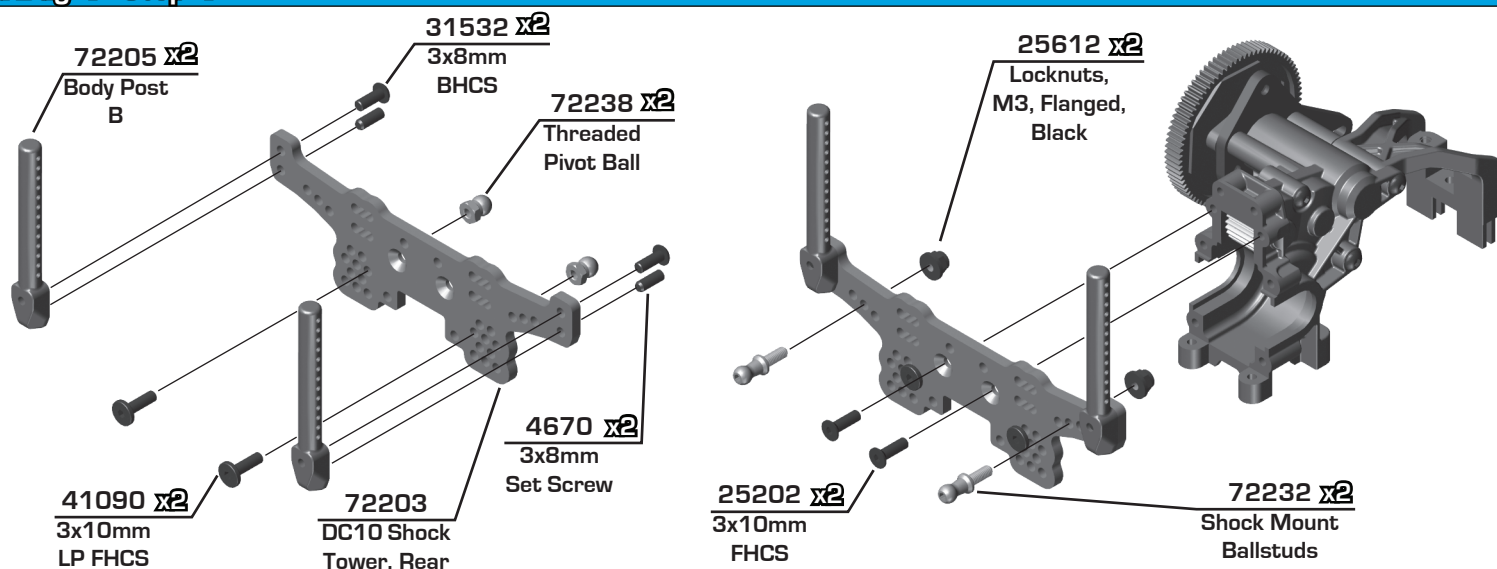
Bag 4 - Step 2



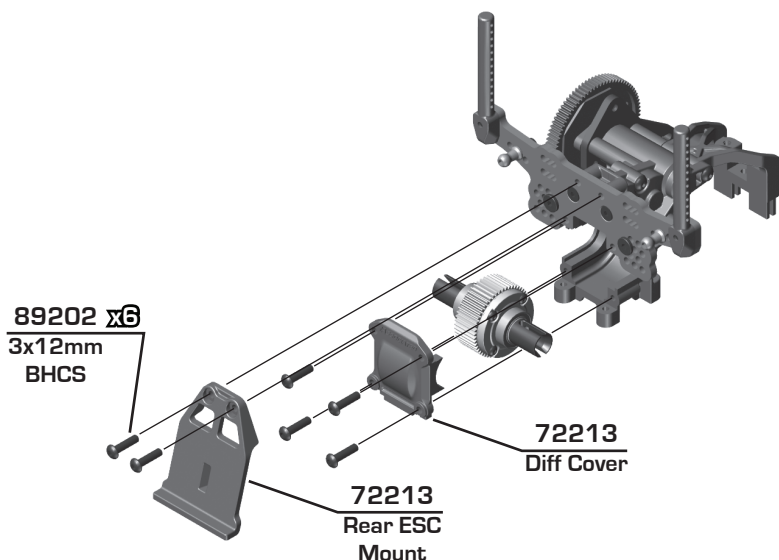
Bag 4 - Step 3



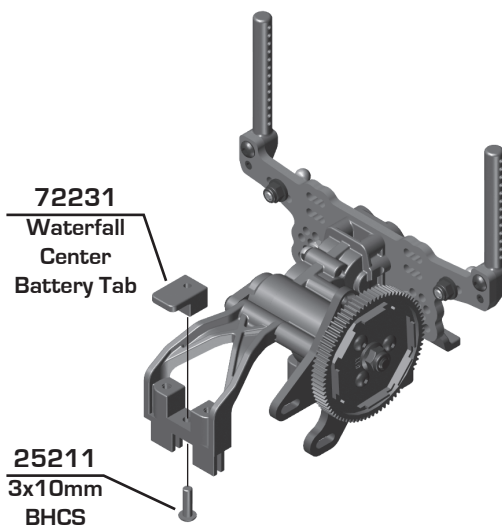
Bag 4 - Step 4



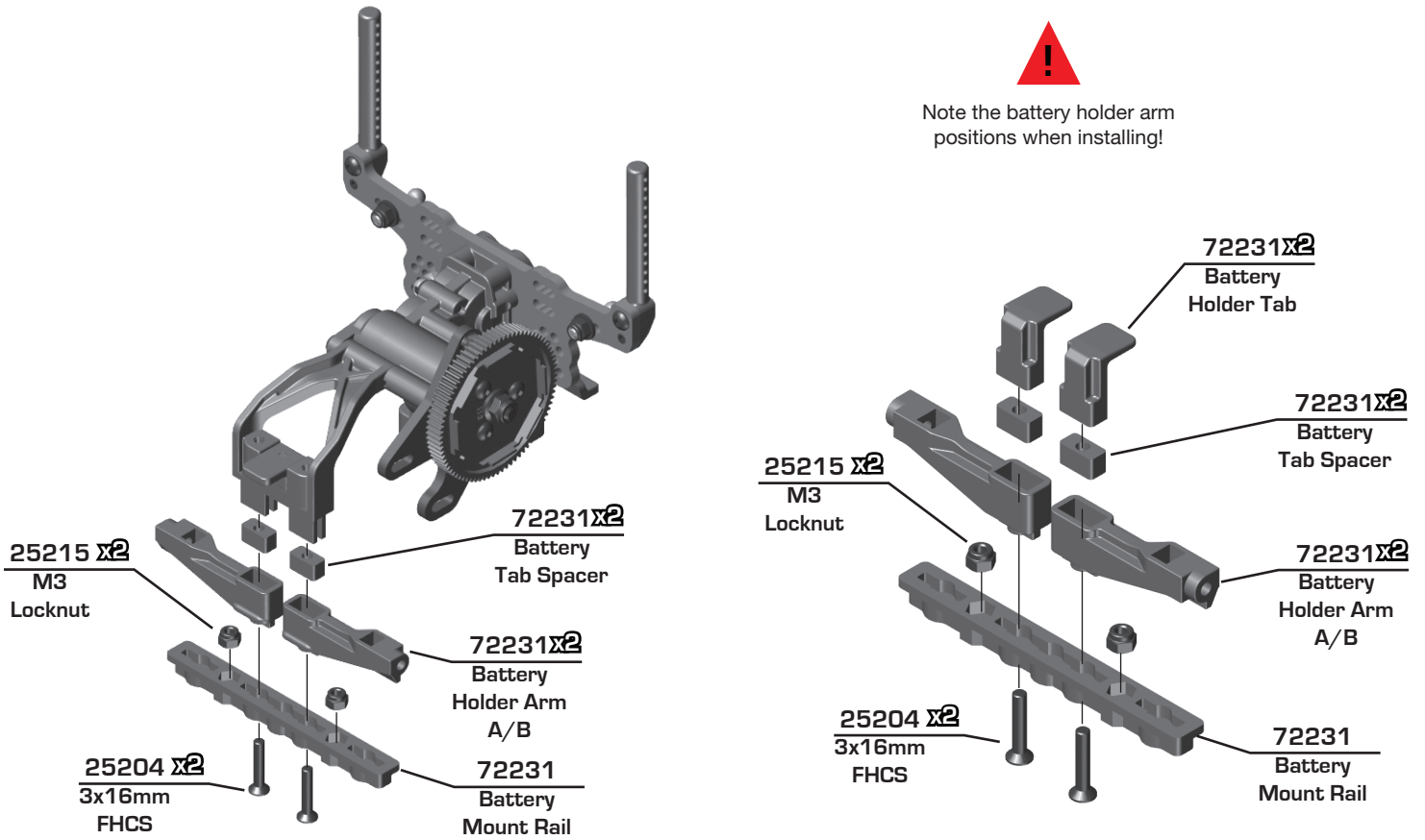
Bag 4 - Step 5



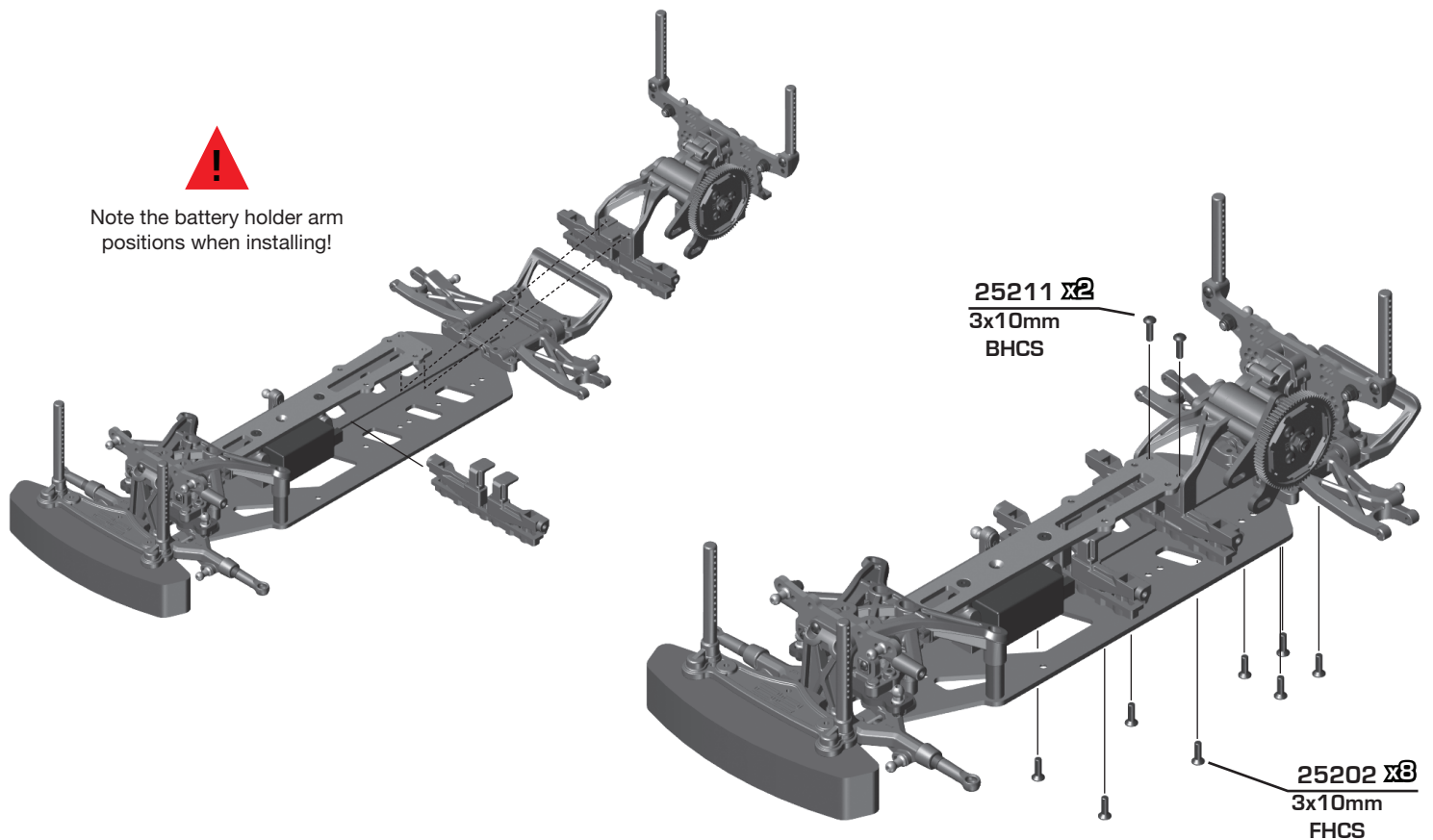
Bag 5 - Step 1



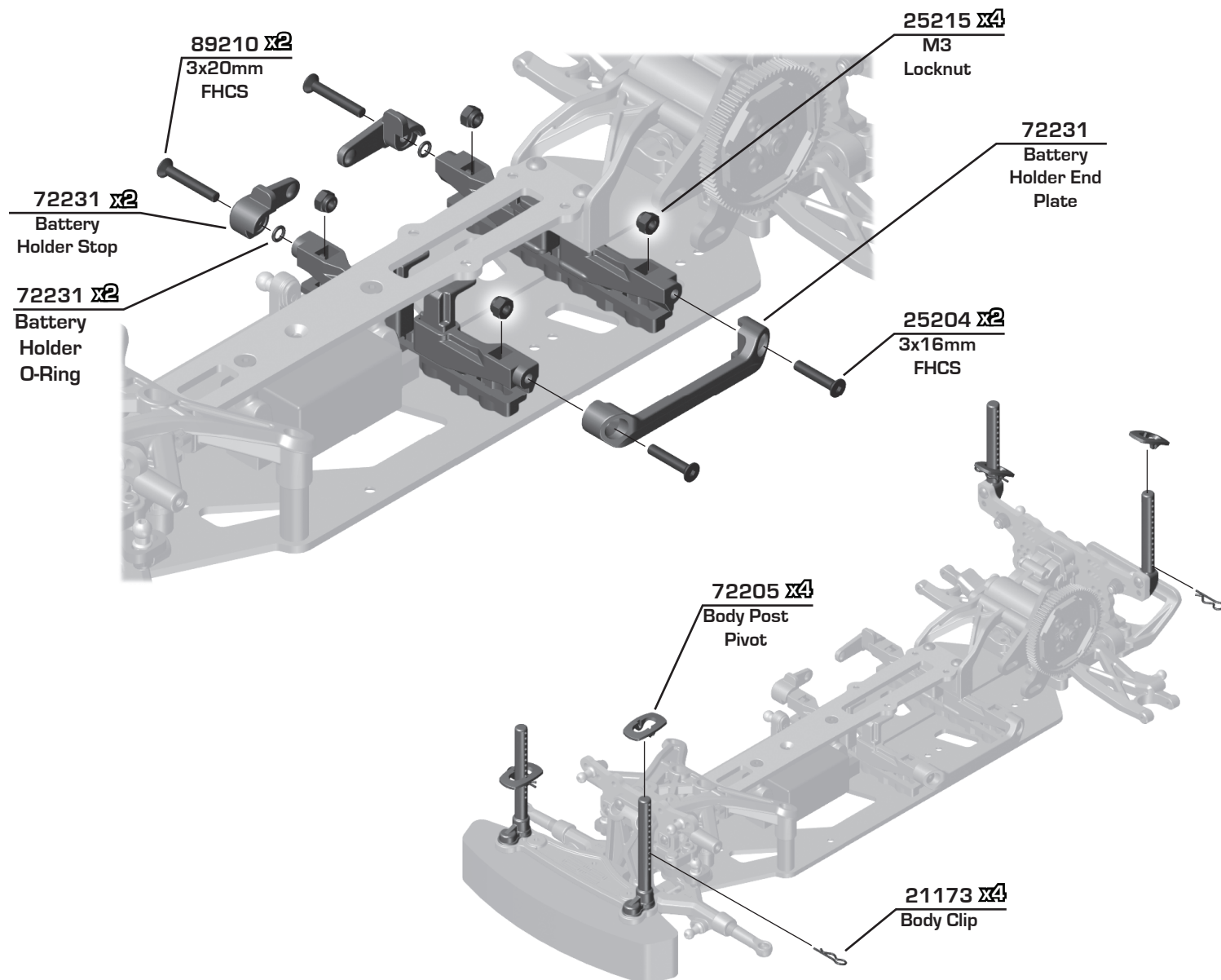
Bag 5 - Step 2



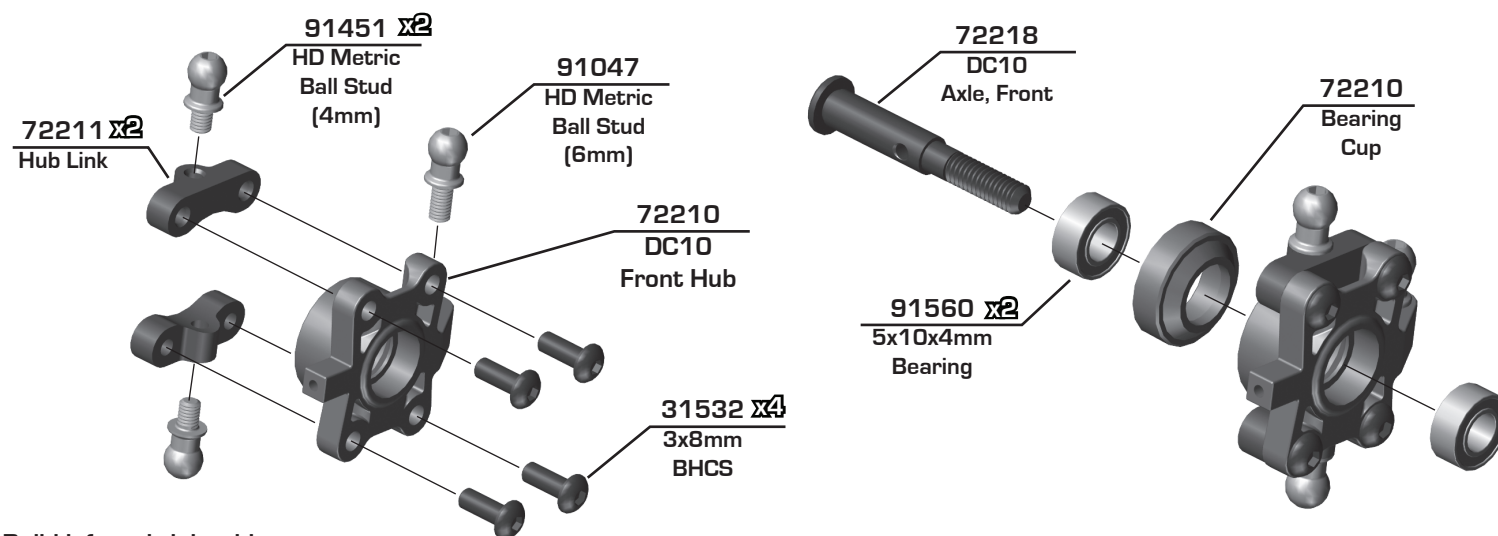
Bag 5 - Step 3



Bag 5 - Step 4

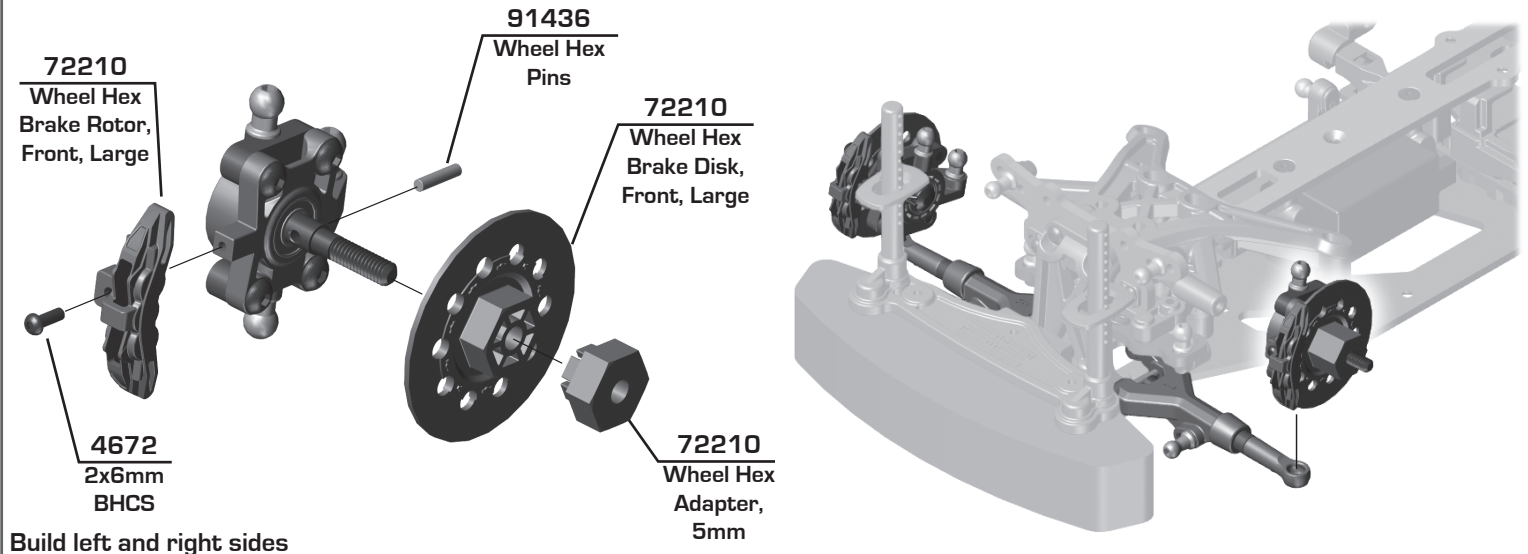


Bag 6 - Step 1

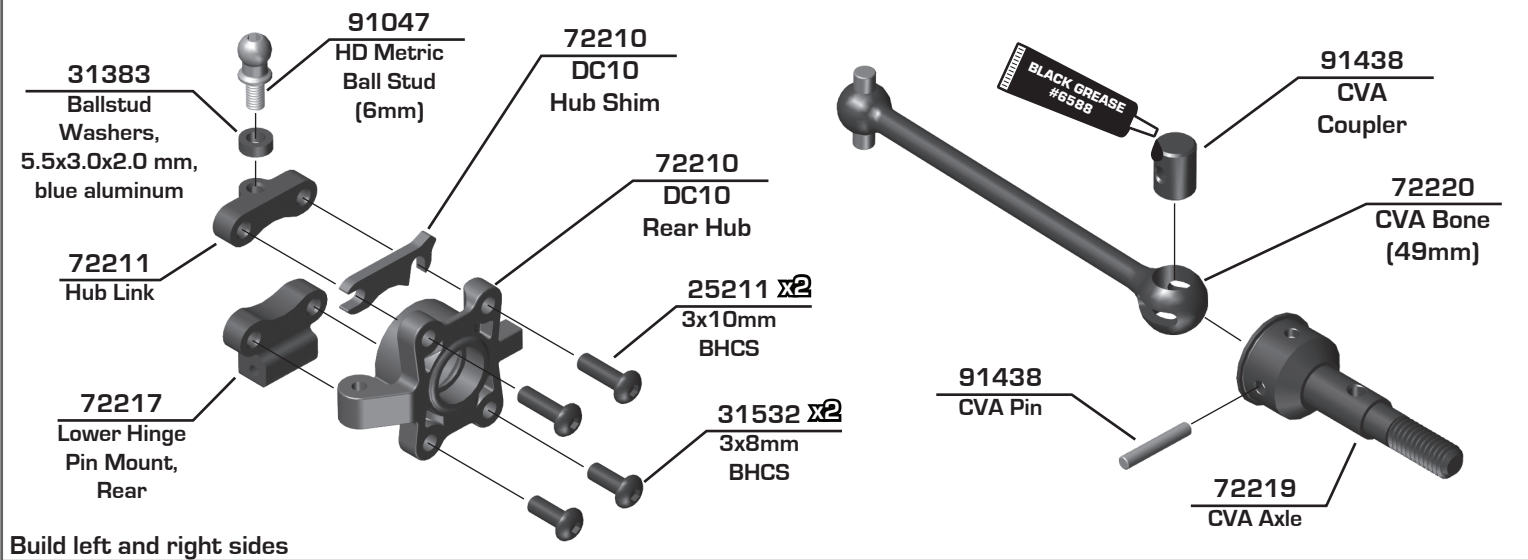


Build left and right sides

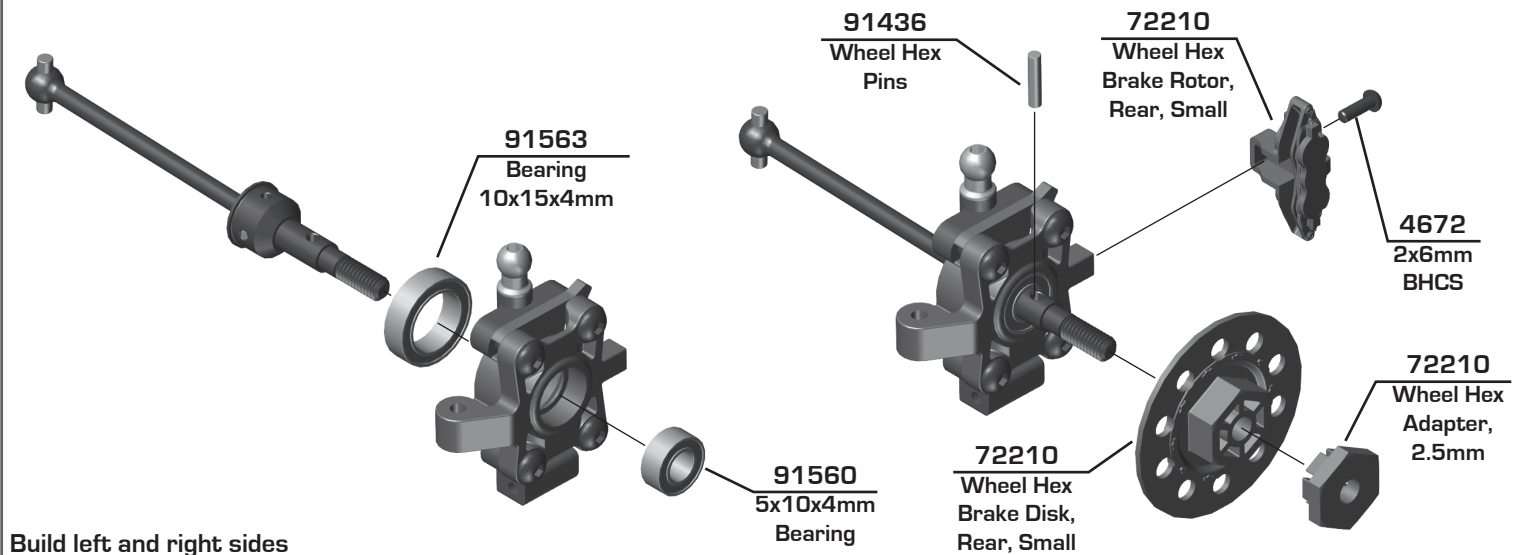
Bag 6 - Step 2



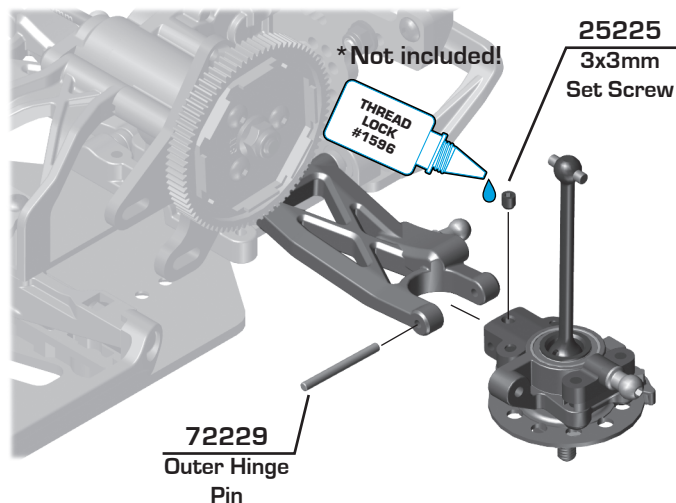
Bag 6 - Step 3



Bag 6 - Step 4



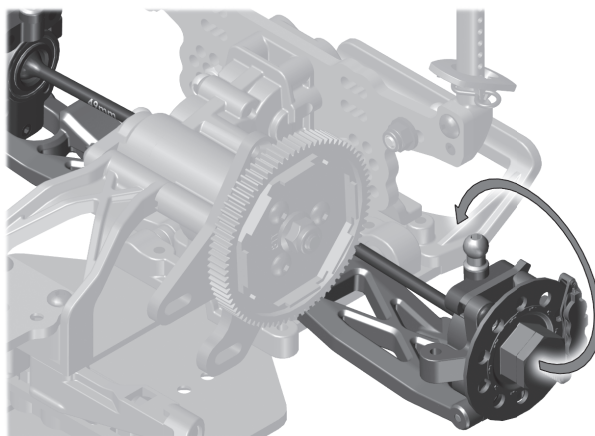
:: Bag 6 - Step 5



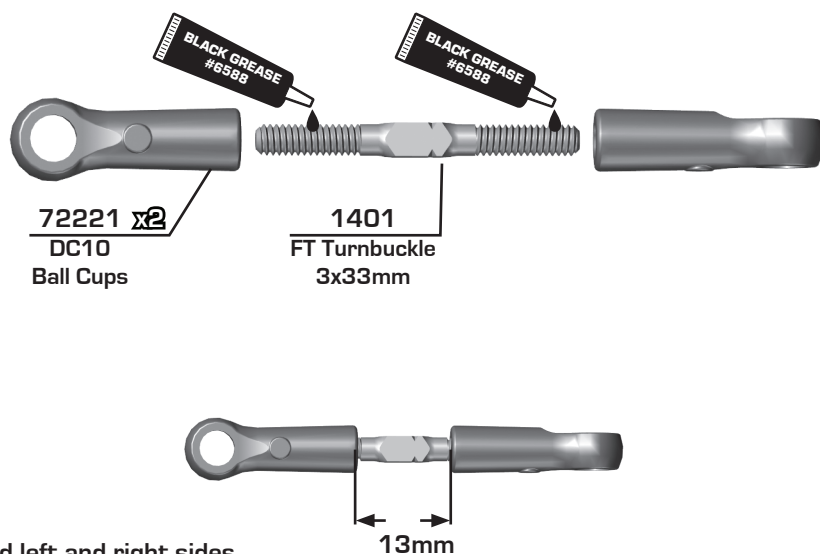
Build left and right sides



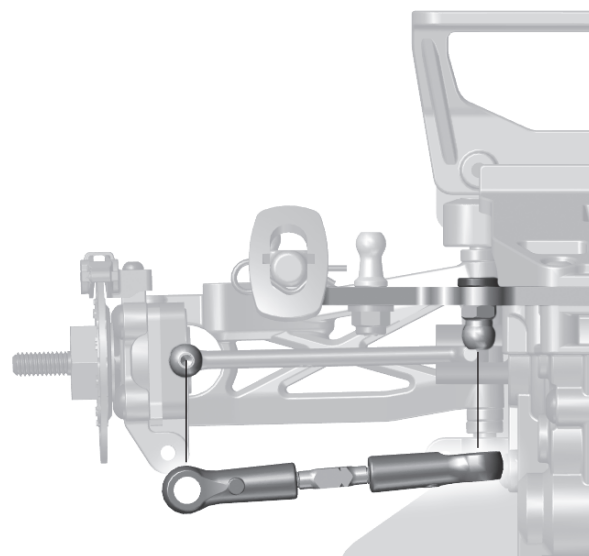
Rotate the rear hub and insert the CVA Bone into the Gear Diff Outdrive.



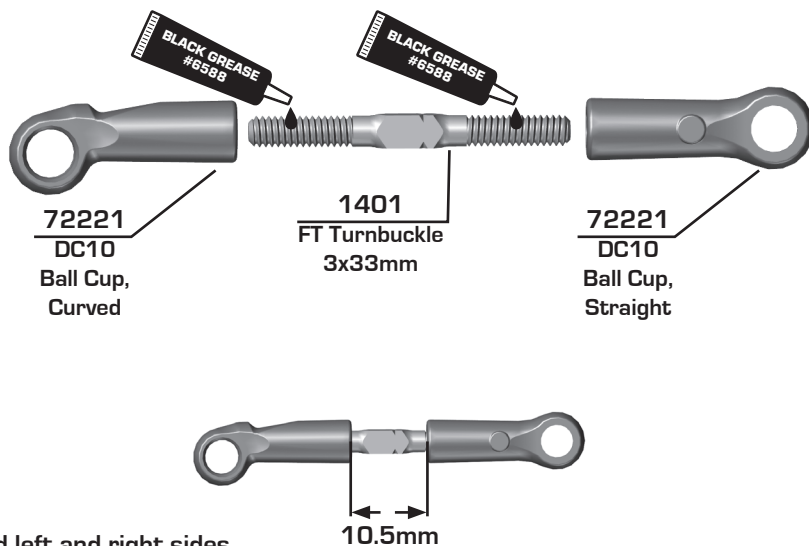
:: Bag 7 - Step 1



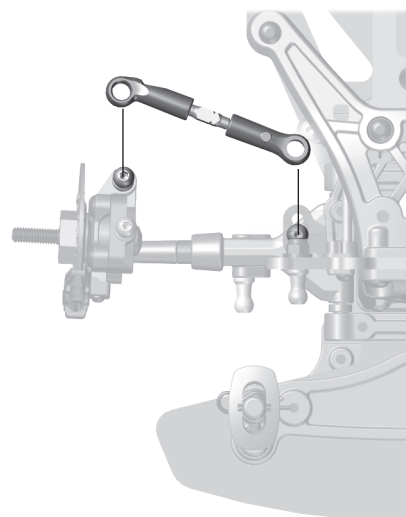
Build left and right sides



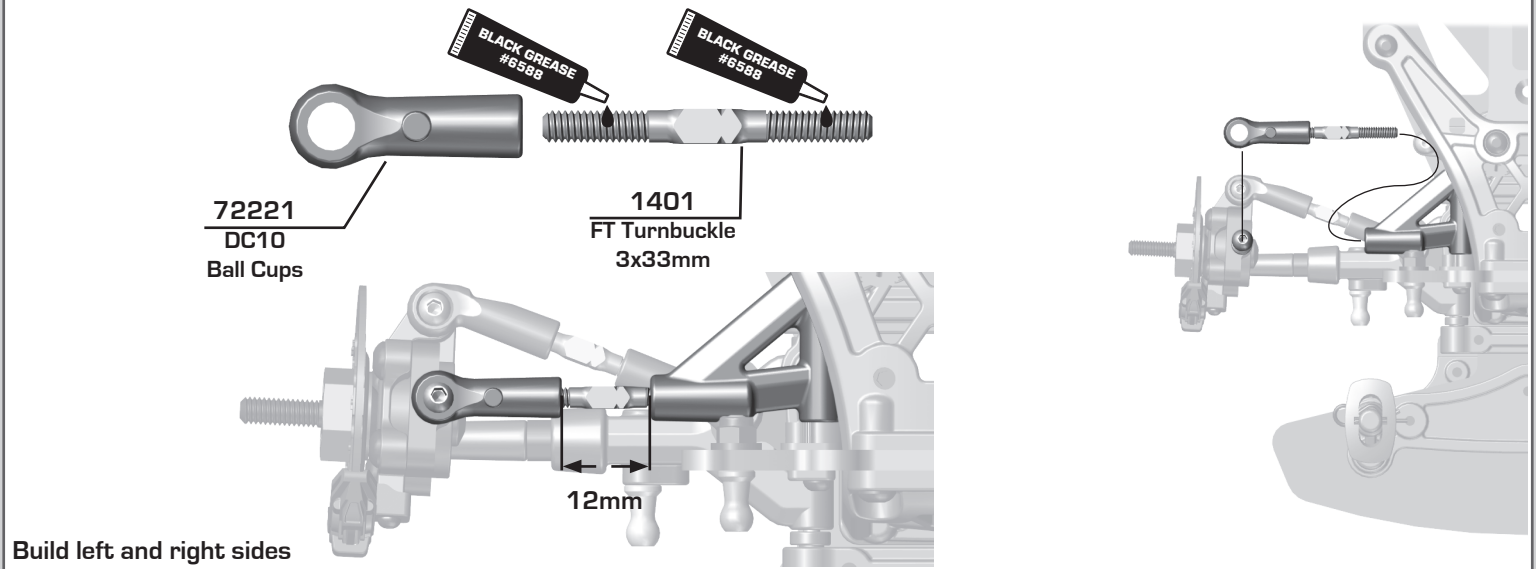
:: Bag 7 - Step 2



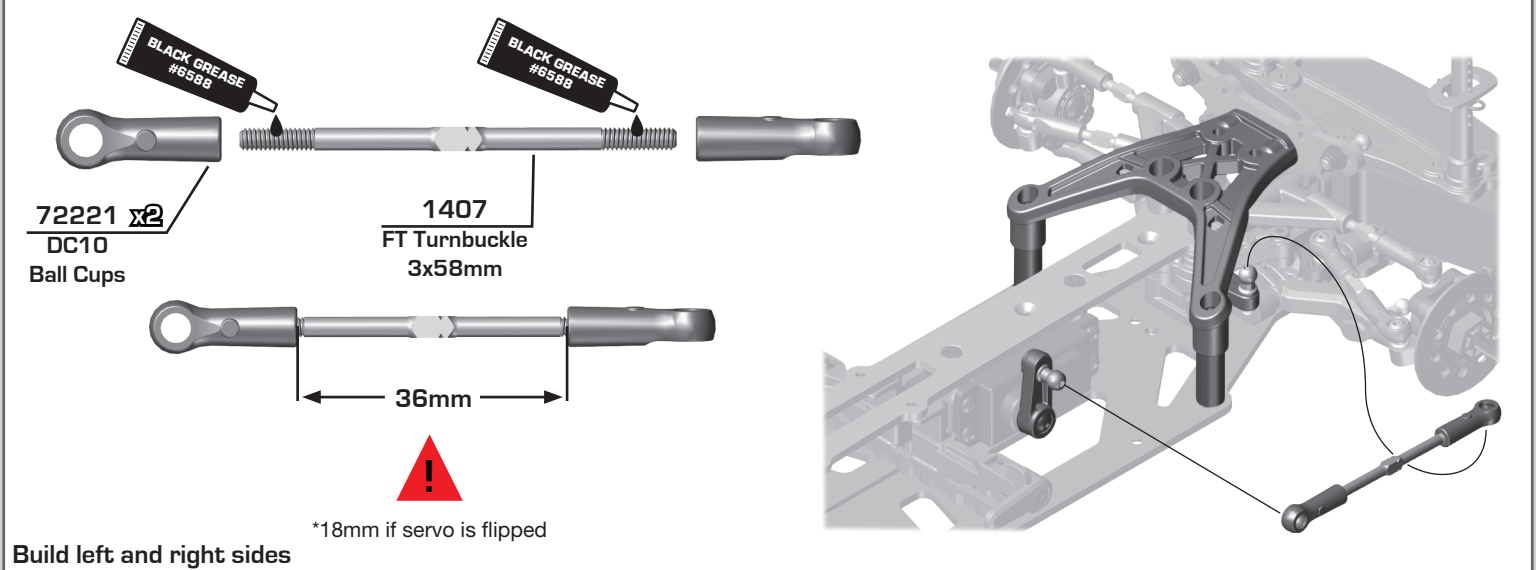
Build left and right sides



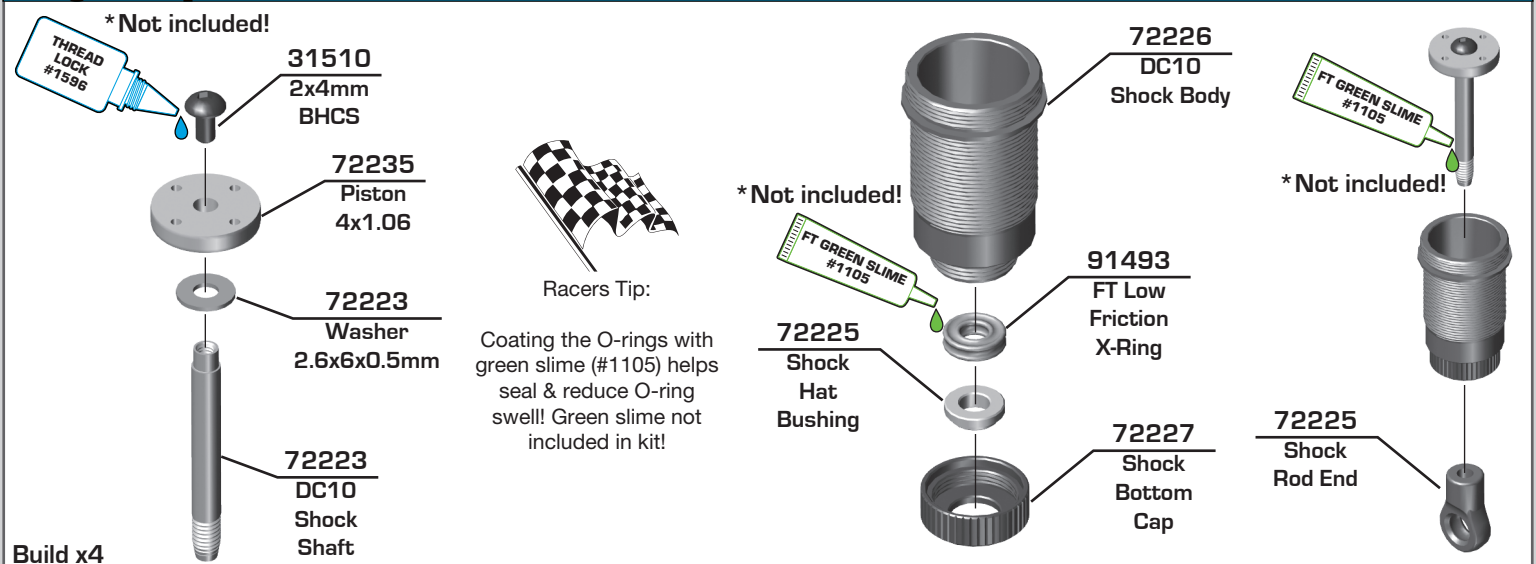
:: Bag 7 - Step 3



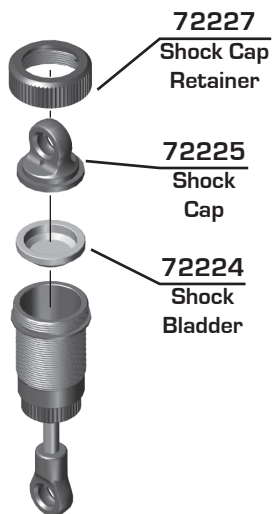
:: Bag 7 - Step 4



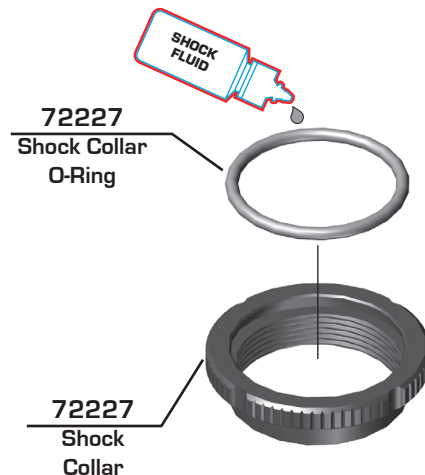
:: Bag 8 - Step 1



:: Bag 8 - Step 2



Compress shock shaft fully. Let shock fluid bleed from cap, then tighten cap. For more rebound, do not compress shock shaft as far before tightening the shock cap.



Build x4

:: Bag 8 - Step 3



Racers Tip:

Surface and Low or High Motor setup will determine what shock springs you should run.

Factory recommended springs for Low Motor setup:

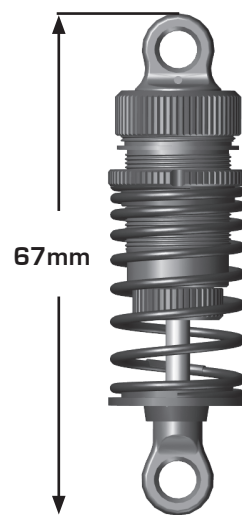
Front: Hard Yellow Spring
Rear: Medium Soft Blue Spring

Factory recommended springs for High Motor setup:

Front: Medium Green Spring
Rear: Medium Soft Blue Spring

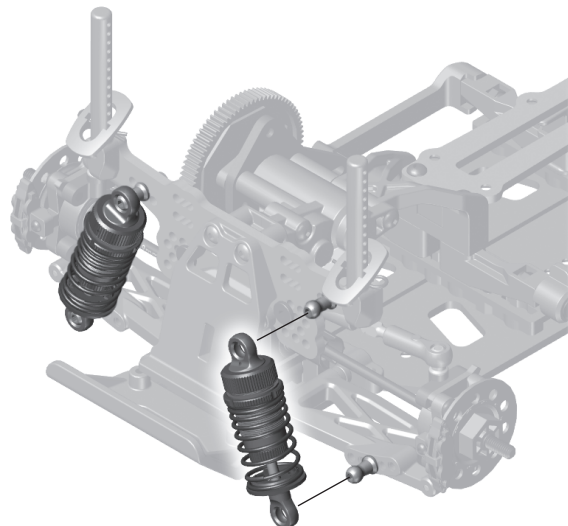
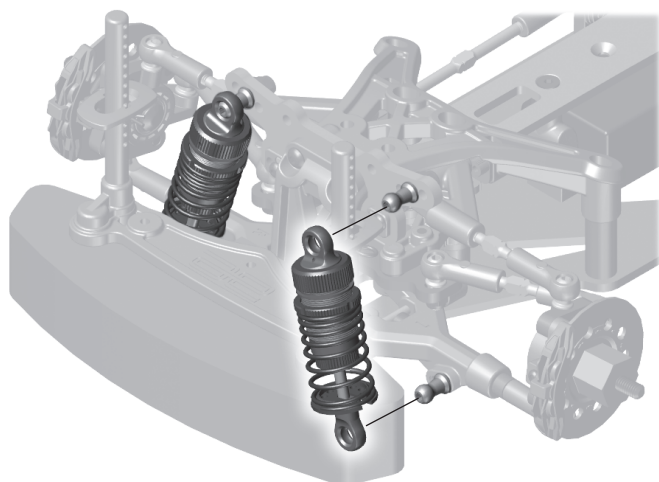


72222 Shock Spring Cup, Aluminum



Build x4

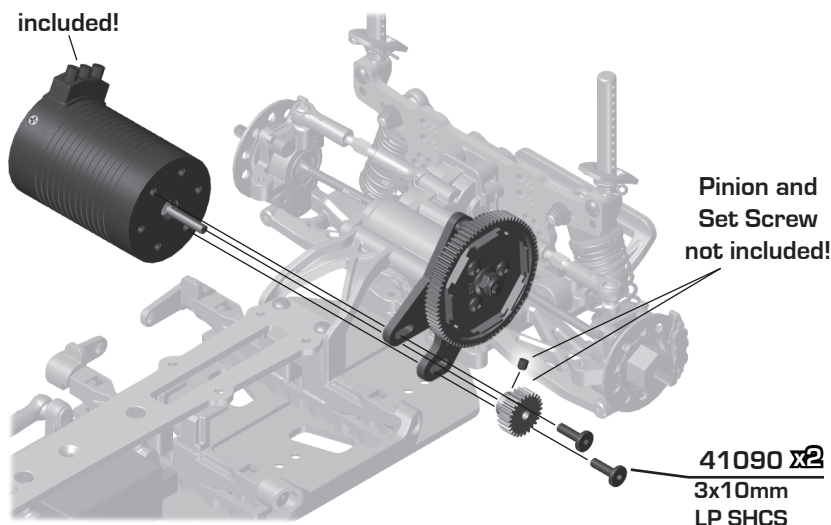
:: Bag 8 - Step 4



Build left and right sides

:: Misc - Step 1

Motor not included!



Set The Gear Mesh:

You should be able to rock the spur gear back and forth in the teeth of the pinion gear without making the pinion gear move. If the spur gear mesh is tight, then loosen the #41090 screws and move the motor away, then try again. A gear mesh that is too tight or too loose will reduce power and damage the gear teeth.

Motor Gearing:

Gearing is dictated by the track surface, layout, motor wind and driver preference. Drifting leans heavily on the motors RPM to gain control.

Higher bite surfaces require a taller gearing for higher RPMs. (More wheel spin)

Recommended Motors for Drifting:

- 17.5: Starting Gearing: 72 spur x 26 pinion
- 17.5 Motors can be tuned to work well for drifting, however they generally have too much torque creating a digital feel at low speeds.
- 13.5: Starting gearing: 78 spur x 24 pinion
- Low torque, higher rpm 13.5 Motors are popular for drifting. This motor wind provides a controllable rpm range for most surfaces.
- 10.5: Starting gearing: 78 spur x 22 pinion
- High RPM 10.5 turn motors are another popular option for drifting. The higher rpms from a 10.5 give a wider tuning window. Usually larger spur gears are used with lower wind motors.

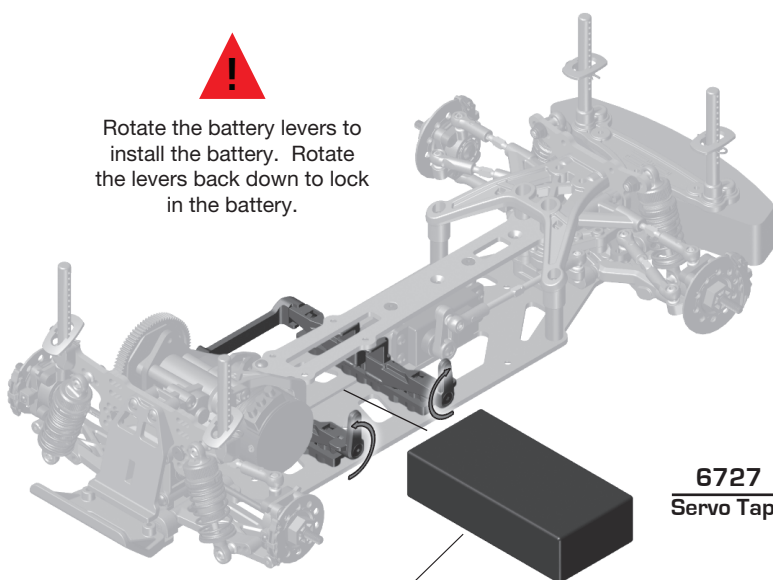
A taller gearing will provide a larger rpm window, warmer motor temps and shorter run times.

Gearing lower provides a smaller rpm window, cooler motor temps and longer run times.

:: Misc - Step 2



Rotate the battery levers to install the battery. Rotate the levers back down to lock in the battery.



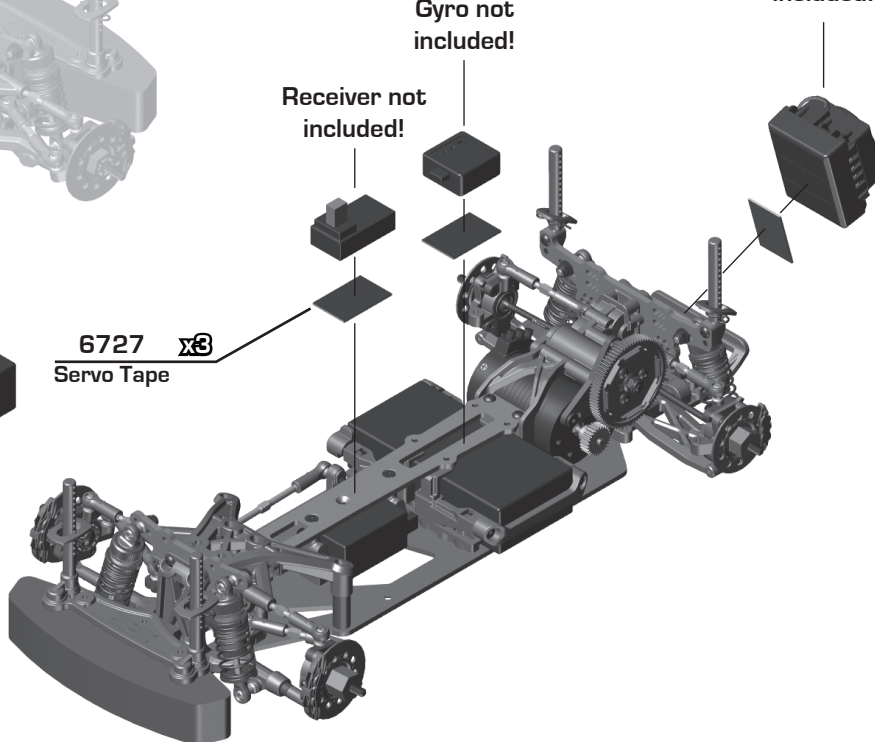
Battery not included!

Gyro not included!

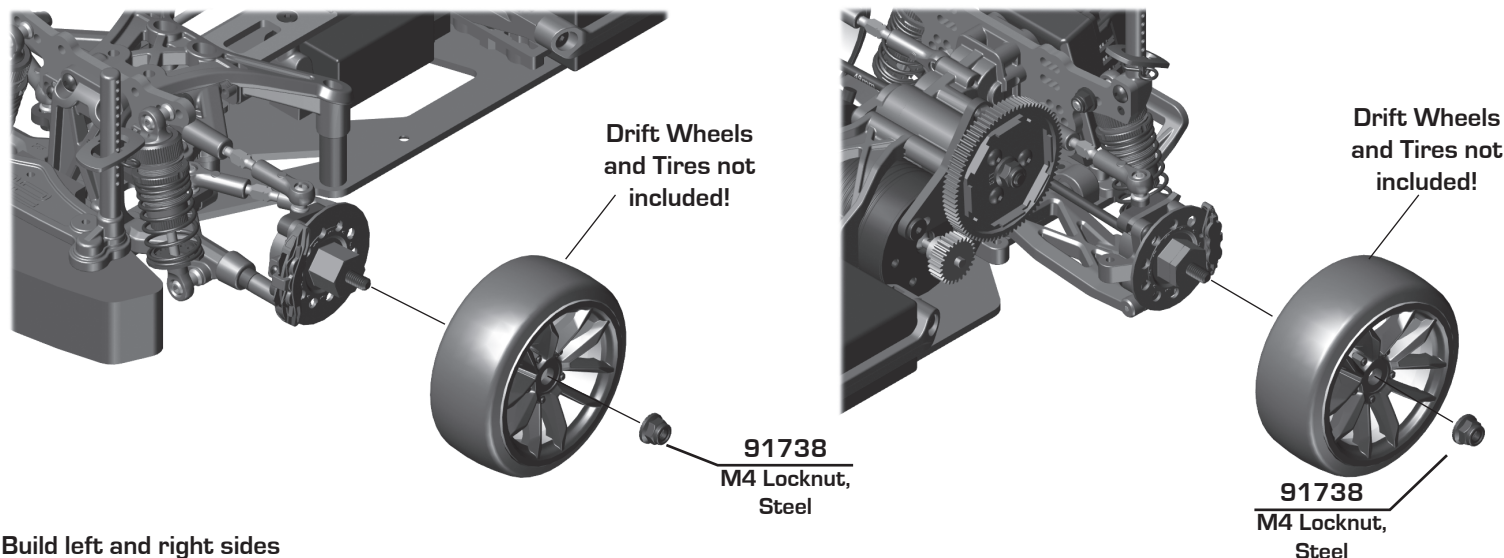
Receiver not included!

ESC not included!

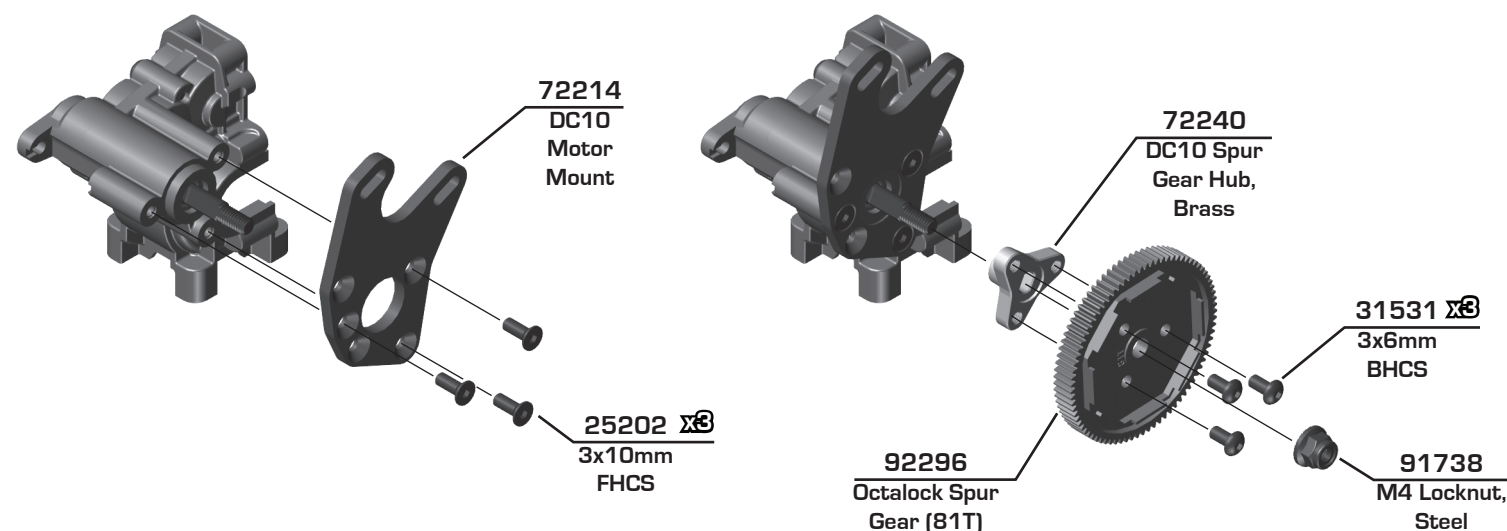
6727 x3
Servo Tape



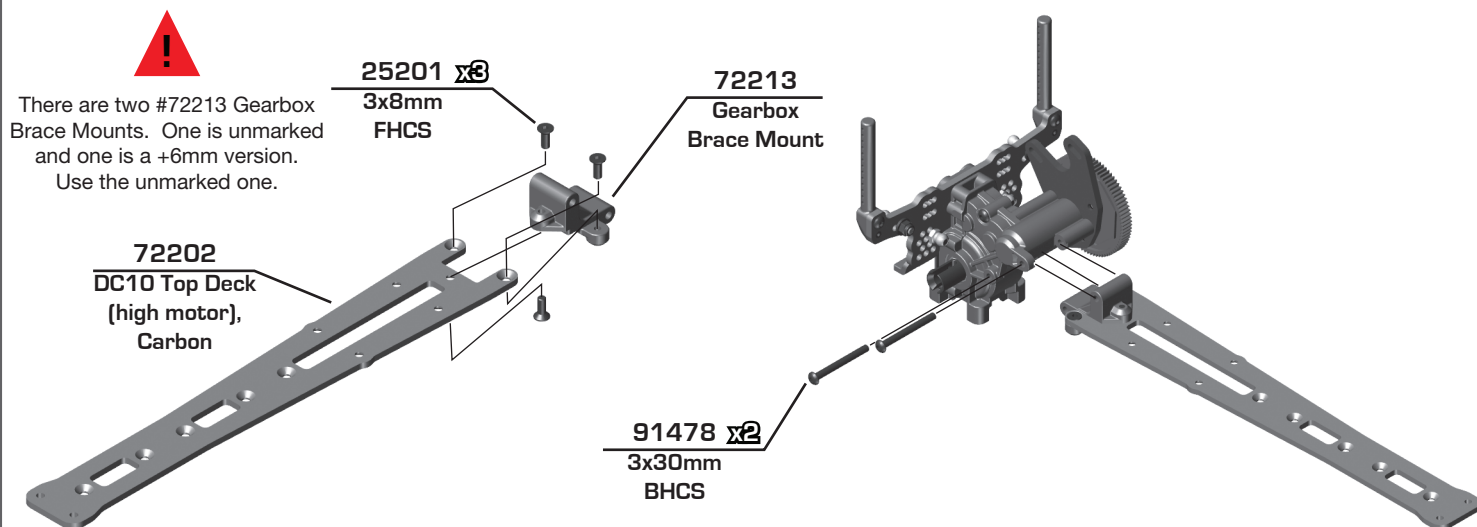
:: Misc - Step 3



:: Optional High Motor Mount - Step 1



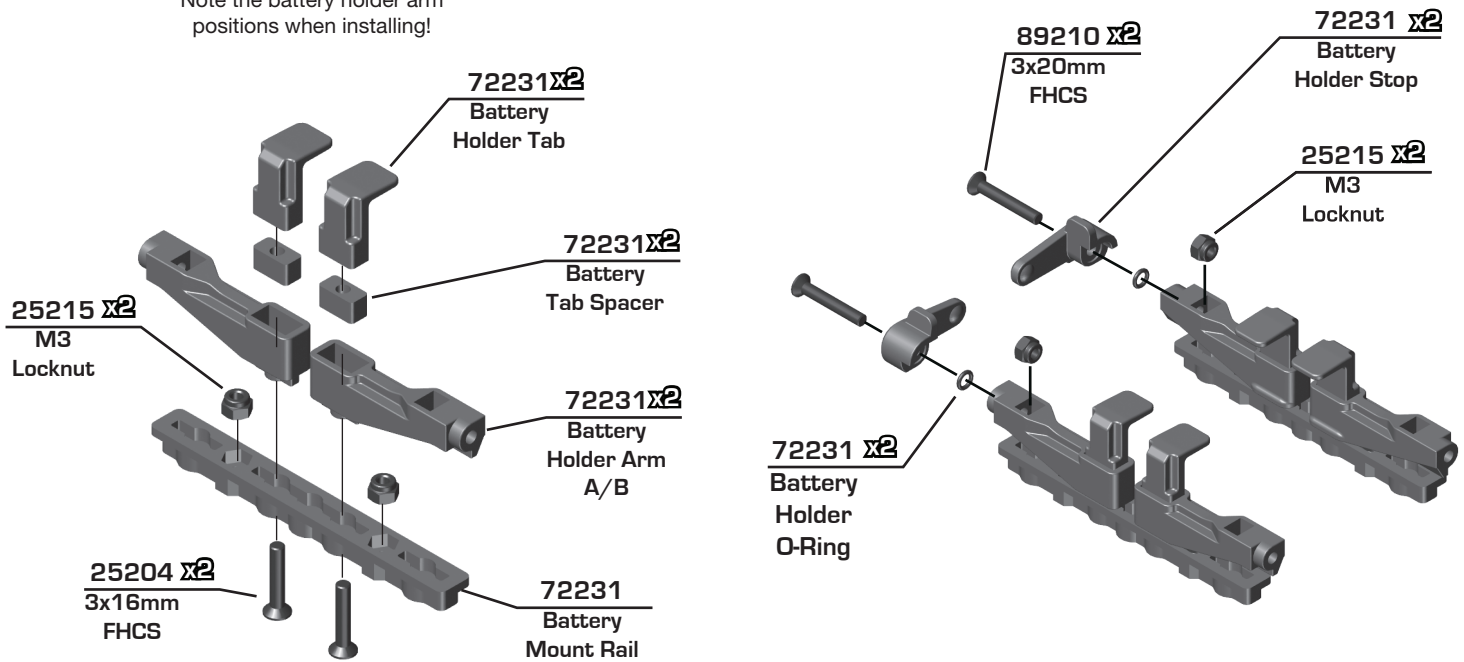
:: Optional High Motor Mount - Step 2



Optional High Motor Mount - Step 3

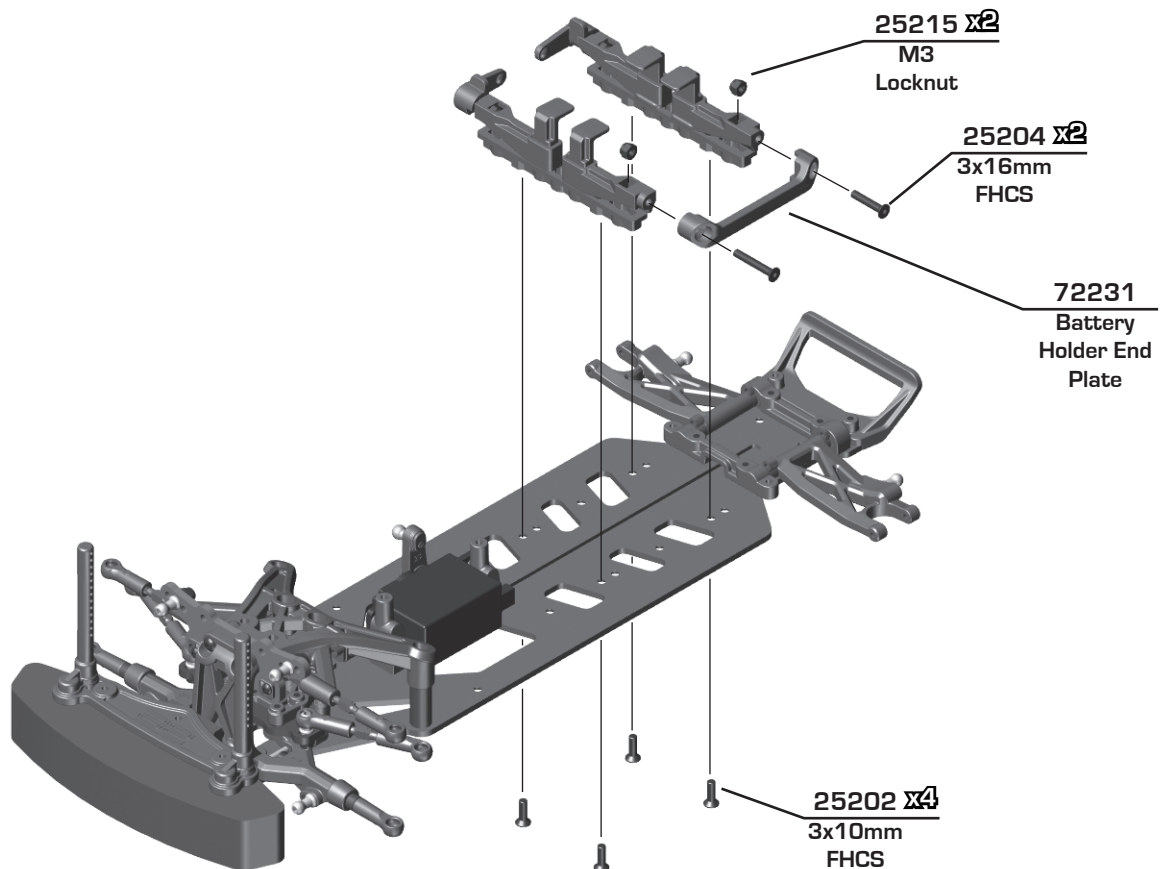


Note the battery holder arm positions when installing!

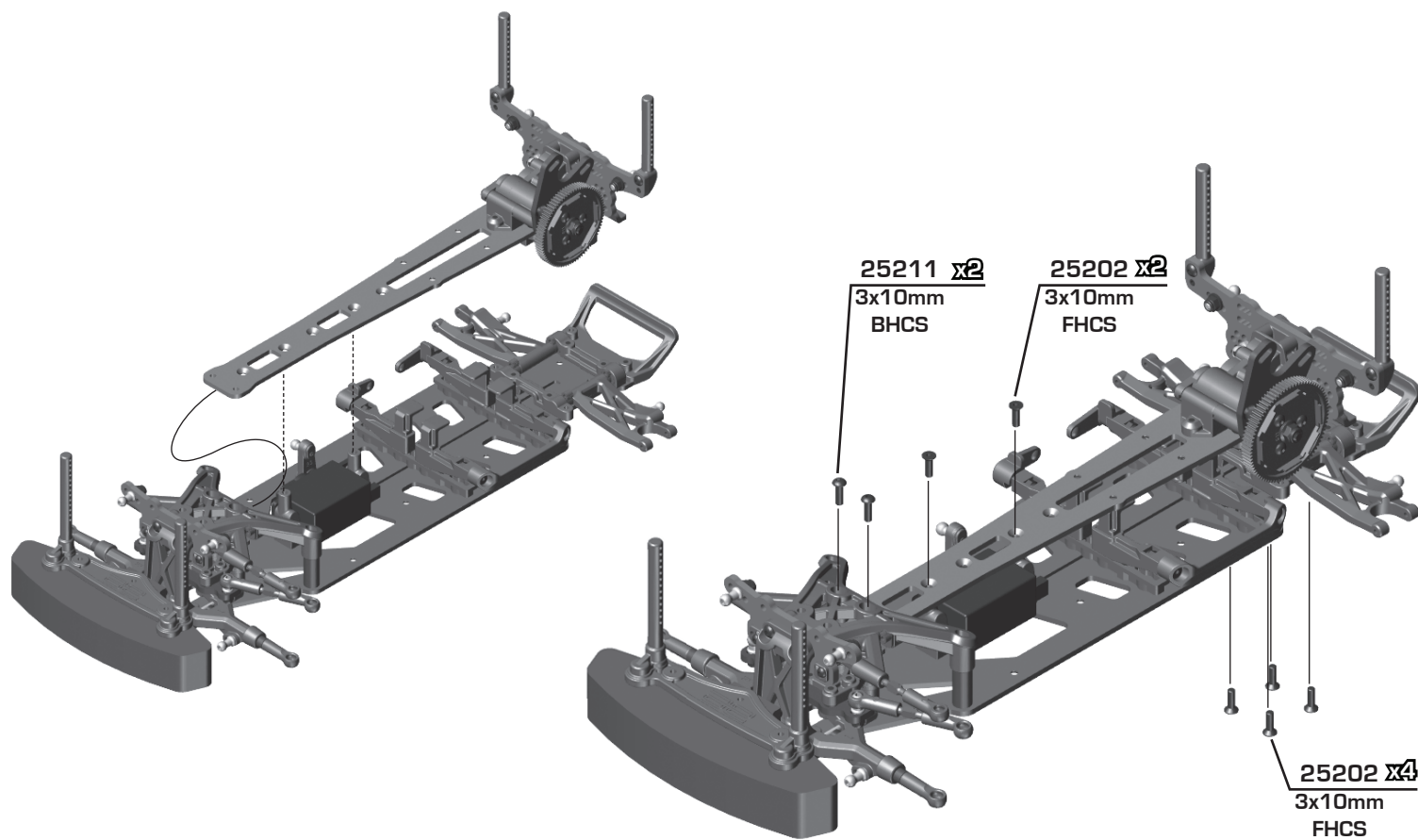


Build x2

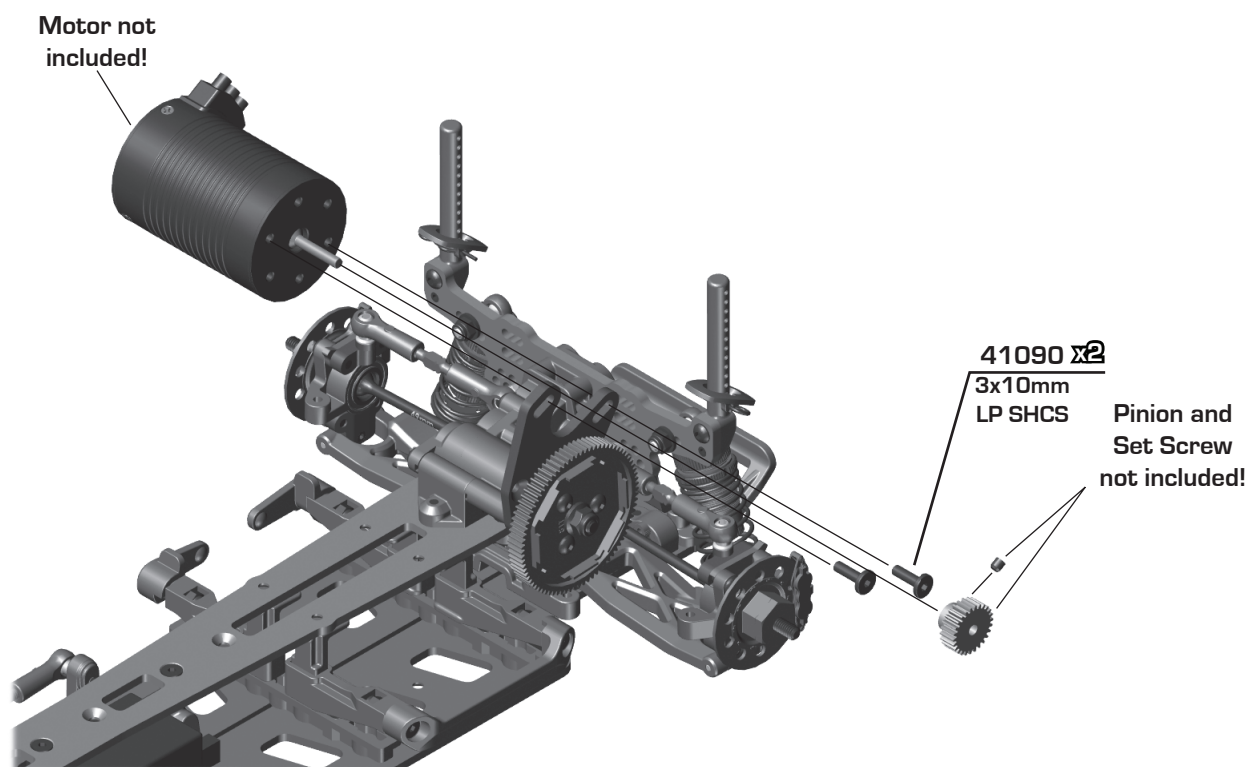
Optional High Motor Mount - Step 4



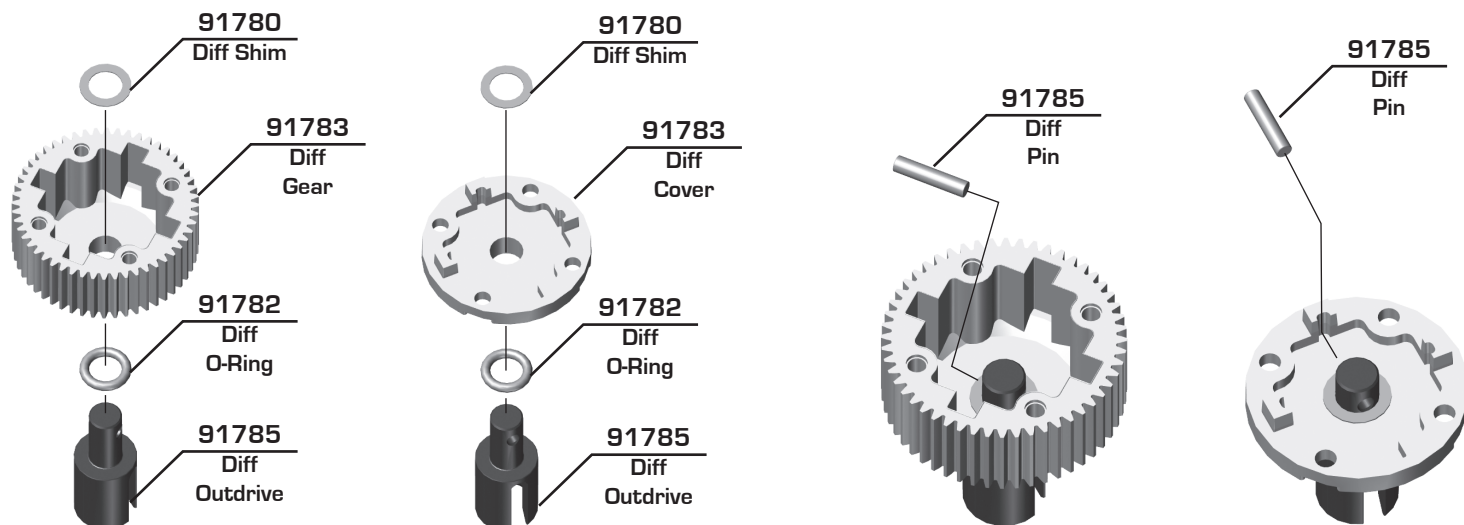
:: Optional High Motor Mount - Step 5



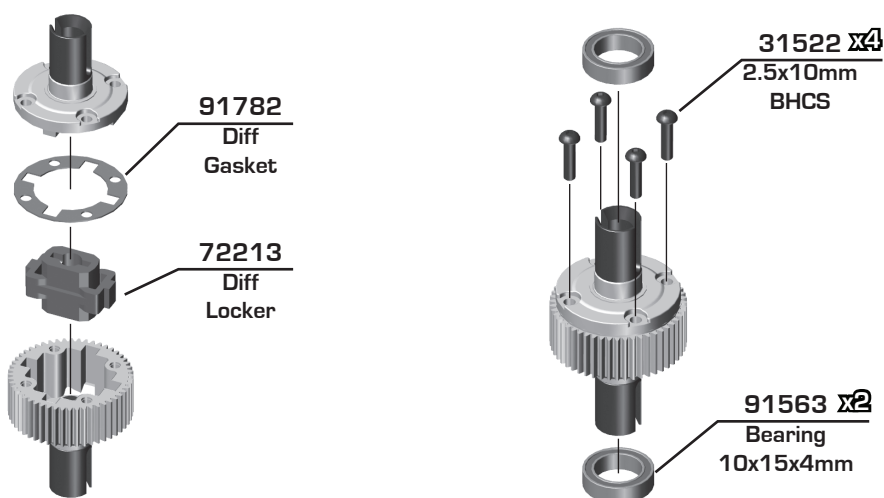
:: Optional High Motor Mount - Step 6



:: Optional Spool Build - Step 1



:: Optional Spool Build - Step 2



Racers Tip:

Locked Diff:
Recommended for
low grip surfaces and
smoother driving style.

Gear Diff:
Light grease for higher
grip surfaces and
1000cst (80wt) for lower
grip surfaces

:: Tuning Tips - Painting, Beginners

Painting:

Your Kit requires a clear polycarbonate body. You will need to prep the body before you can paint it. Wash the INSIDE thoroughly with warm water and liquid detergent (do not use any detergents with scents or added hand lotion ingredients!). Dry the body using a clean, soft, lint-free cloth. Use the supplied window masks to cover the windows from the INSIDE of the body (RC bodies get painted on the inside). Using high quality masking tape, apply tape to the inside of the body to create a design. Spray (use either rattle can or airbrush) the paint on the inside of the body (preferably dark colors first, lighter colors last). NOTE: ONLY use paint that is recommended for (polycarbonate) plastics. If you do not, you can destroy the body! After the paint has completely dried (usually after 24 hours), cut the body along the trim lines. Make sure to drill or use a body reamer to make the holes for the antenna if needed! Use hook and loop tape to secure the body to the side rails of the vehicle.

Tips for Beginners:

Before making any changes to the standard setup, make sure you can get around the track without crashing. Changes to your vehicle will not be beneficial if you can't stay on the track. Your goal is consistent laps. Once you can get around the track consistently, start tuning your vehicle. Make only ONE adjustment at a time, testing it before making another change. If the result of your adjustment is a faster lap, mark the change on the included setup sheet (make additional copies of the sheet before writing on it). If your adjustment results in a slower lap, revert back to the previous setup and try another change. When you are satisfied with your vehicle, fill in the setup sheet thoroughly and file it away. Use this as a guide for future track days or conditions. Periodically check all moving suspension parts. Suspension components must be kept clean and move freely without binding to prevent poor and/or inconsistent handling.

Front Suspension:

Ride Height:	6mm
Camber:	-8 Degrees
Toe:	3 to 4 Degrees toe out
Arm Spacing:	Middle
Tower Type:	Carbon Fiber
Wheel Hex:	FT 6.5mm
Steering Block KPI:	Block Facing Out
Caster Block Spacing:	5mm fr, 1mm rr
Notes:	

Upper Arm Insert:	Steering Bellcrank Position: Up <input checked="" type="checkbox"/> Down <input type="checkbox"/>	Steering Spacing: 2mm		
	Steering Spacing: 4mm			
	Bump Steer Spacing: 0	Ball Stud Spacing: 2mm		
	Ball Stud Spacing: 0	Ball Stud Spacing: 0		
	Axle Height: +3 <input type="checkbox"/> +2 <input checked="" type="checkbox"/> +1 <input type="checkbox"/> +0 <input type="checkbox"/>	Lower Arm Length: +2mm		Front Kickup Shim: FF: None FR: None

Rear Suspension:

Ride Height:	6mm
Camber:	-2 Degrees
Arm Spacing:	4mm back, 2mm front
Tower Type:	Carbon Fiber
Wheel Hex:	FT 6mm Steel #42076
Hub Spacing:	None
Notes:	

	Front Arm Spacing: 2mm front, 2mm rear	Rear Arm Spacing: 4mm back, 2mm front	
Low Motor: <input type="checkbox"/>	High Motor: <input checked="" type="checkbox"/>	Ball Stud Spacing: 1mm	
D Mount: Aluminum <input type="checkbox"/> Plastic <input checked="" type="checkbox"/>			
			Rear Kickup Shim: None

Electronics:

Radio:	
Servo:	Reedy High Sped
EPA: Throttle:	% Brake: %
ESC:	Reedy Black Box 610
ESC Settings:	40 Boost
Motor / Wind:	10T / 12.0 Rotor
Timing:	
Pinion:	20t
Spur:	81t
Motor Position:	High Motor
Battery:	L.P. 4800
Weight:	Reedy 34g
Battery Position:	Back
Fwd: <input type="checkbox"/> Back: <input checked="" type="checkbox"/> High: <input type="checkbox"/> Low: <input type="checkbox"/> Other: <input type="checkbox"/>	
Notes:	
Gyro:	FT CS-1
Gyro Settings:	
Gyro Mode:	Normal Mode
Limit Gain:	65%
Notes:	

Drivetrain:

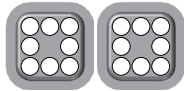
Differential:	Ball Diff: <input checked="" type="checkbox"/>
Gear Diff: <input type="checkbox"/> Gear Diff Locked: <input type="checkbox"/>	
Diff Setting:	Set Looser with FT #6636 Grease
Notes:	
Tires:	
Front Tires:	AE Drift Tire
Front Compound:	
Rear Tires:	AE Drift Tire
Rear Compound:	
Wheel (F/R):	+8mm Offset f/r
Notes:	
Body, Chassis, Weight:	
Body:	
Rear Wing:	
Chassis Type:	Carbon Fiber
Chassis Weights:	Reedy 34g
Total Vehicle Weight:	1500g w/ body

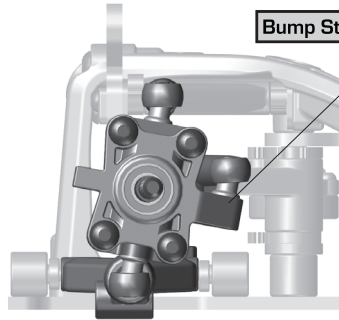
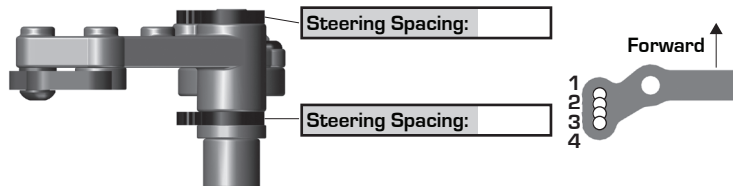
Shocks:

	Front	Rear
Piston:	4 hole x 1.06mm	4 hole x 1.06mm
Thickness:	2mm Flat	2mm Flat
Fluid:	10wt	10wt
Spring:	Blue	Green
Limiters:	Int: 0 Ext: 0	Int: 0 Ext: 0
Stroke:	14mm	14mm
Shock Length:	66mm	66mm
Eyelet Length:	0 <input type="checkbox"/> +3 <input checked="" type="checkbox"/> +6 <input type="checkbox"/>	0 <input type="checkbox"/> +3 <input checked="" type="checkbox"/> +6 <input type="checkbox"/>
Alum. Bodies:	<input checked="" type="checkbox"/>	Chrome Shafts: <input checked="" type="checkbox"/> Machined Spacers: <input type="checkbox"/>
Notes:		
Vehicle Comments:		
Notes:		

Front Suspension:

Ride Height: _____
 Camber: _____
 Toe: _____
 Arm Spacing: _____
 Tower Type: _____
 Wheel Hex: _____
 Steering Block KPI: _____
 Caster Block Spacing: _____
 Notes: _____

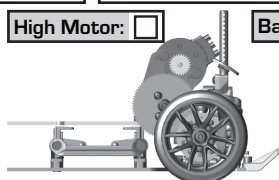
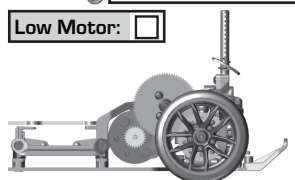
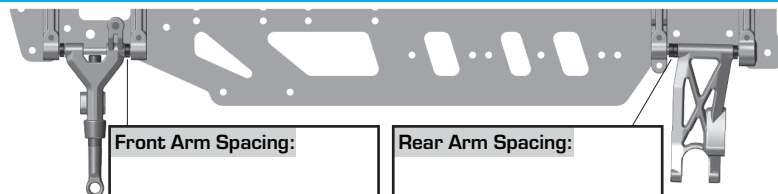
Upper Arm Insert:  Steering Bellcrank Position: Up ☐ Down ☐




Ball Stud Spacing: _____
 Ball Stud Spacing: _____
 Axle Height: +3 ☐ +2 ☐ +1 ☐ +0 ☐
 Lower Arm Length: _____
 Front Kickup Shim: _____
 3 2 1
 B A

Rear Suspension:

Ride Height: _____
 Camber: _____
 Arm Spacing: _____
 Tower Type: _____
 Wheel Hex: _____
 Hub Spacing: _____
 Notes: _____



D Mount: Aluminum ☐ Plastic ☐


Ball Stud Spacing: _____
 3 2 1
 3 2 1
 6 5 4
 49mm
 E D C B A
 Rear Kickup Shim: _____

Electronics:

Radio: _____
 Servo: _____
 EPA: Throttle: _____ % Brake: _____ %
 ESC: _____
 ESC Settings: _____
 Motor / Wind: _____ Timing: _____
 Pinion: _____ Spur: _____
 Motor Position: _____
 Battery: _____ Weight: _____
 Battery Position: Fwd: ☐ Back: ☐ High: ☐ Low: ☐ Other: ☐
 Notes: _____
 Gyro: _____
 Gyro Settings: _____
 Gyro Mode: _____
 Limit Gain: _____
 Notes: _____

Drivetrain:

Differential: Ball Diff: ☐
 Gear Diff: ☐ Gear Diff Locked: ☐
 Diff Setting: _____
 Notes: _____
Tires:
 Front Tires: _____
 Front Compound: _____
 Rear Tires: _____
 Rear Compound: _____
 Wheel (F/R): _____
 Notes: _____

Body, Chassis, Weight:

Body: _____
 Rear Wing: _____
 Chassis Type: _____
 Chassis Weights: _____
 Total Vehicle Weight: _____

Shocks:

	Front	Rear
Piston:	_____	_____
Thickness:	_____	_____
Fluid:	_____	_____
Spring:	_____	_____
Limiters:	Int: _____ Ext: _____	Int: _____ Ext: _____
Stroke:	_____	_____
Shock Length:	_____	_____
Eyelet Length:	0 <input type="checkbox"/> +3 <input type="checkbox"/> +6 <input type="checkbox"/>	0 <input type="checkbox"/> +3 <input type="checkbox"/> +6 <input type="checkbox"/>
Alum. Bodies:	<input type="checkbox"/>	Chrome Shafts: <input type="checkbox"/> Machined Spacers: <input type="checkbox"/>
Notes:	_____	

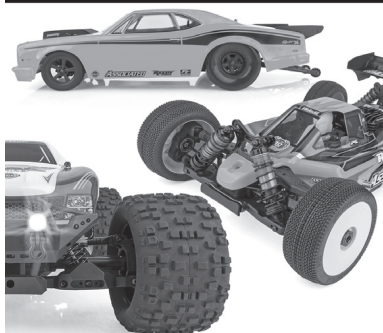
Stroke ↑

Vehicle Comments:

Notes: _____

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