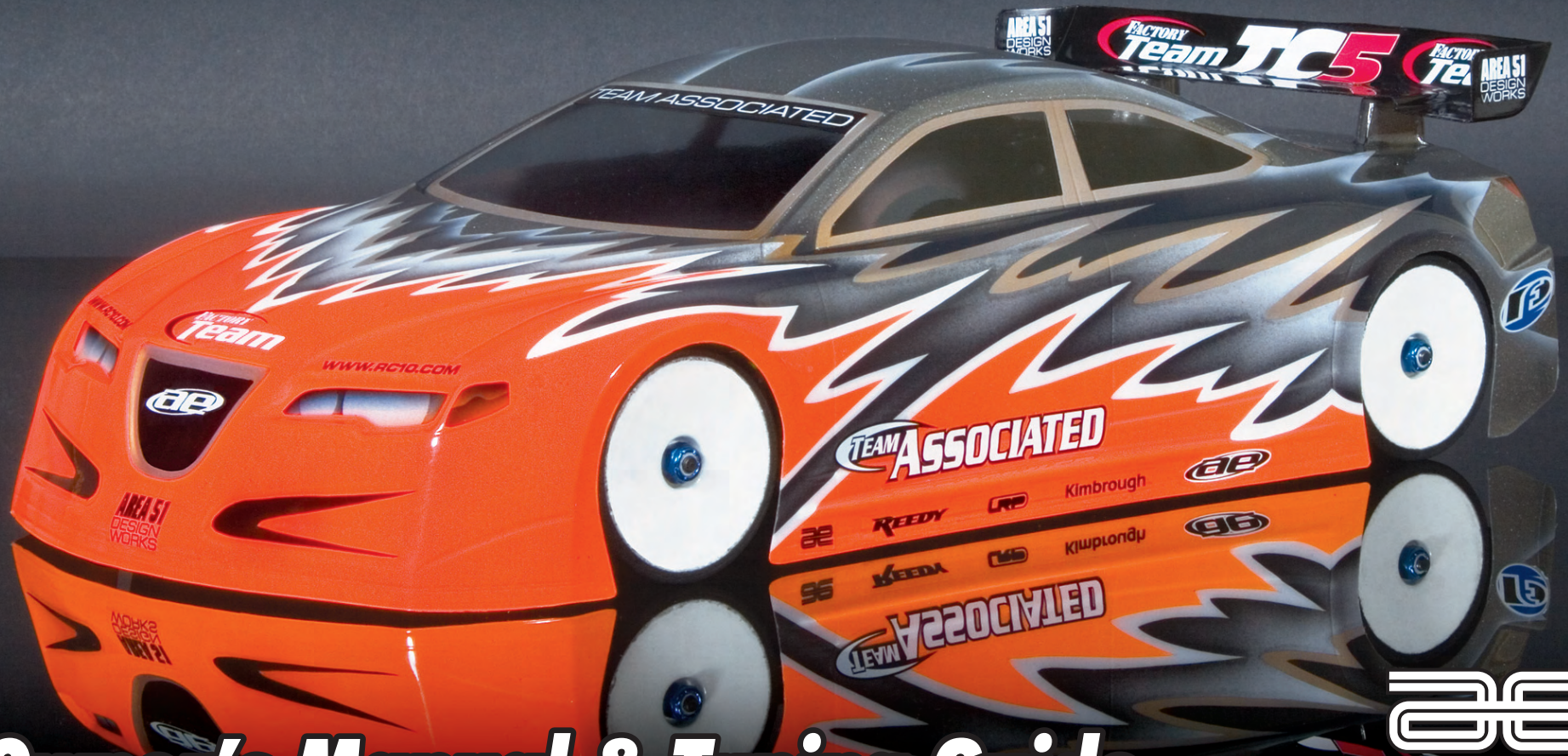


Feb. '07

# TC5 FACTORY Team

## 1:10th Scale 4wd Electric Touring Car Kit



# Owner's Manual & Tuning Guide

**CD**  
Champions  
By Design

**Thank you!** ...for selecting this Team Associated model.

Associated's Factory Team TC5 is Area-51's answer to the most competitive onroad touring car field in history. Starting with a blank sheet of paper, many decades of race winning experience and new ideas, the designers built the TC5 from the ground up producing an entirely new platform. The result is the TC5, an electric touring car that offers the performance and durability to stand up to the highest demands of touring car racing.

Team Associated wants you to enjoy the process of building, driving and maintaining your new model. If you discover any problems or need help with the assembly of your model, please give us a call and we will do our very best to help you!

## Customer Support

Tel: 949.544.7500  
Fax: 949.544.7501

Hours: Monday-Friday  
8:00am - 4:00pm, pst

Visit the following web sites for tips, setup help and racing information:

[www.RC10.com](http://www.RC10.com)  
[www.TeamAssociated.com](http://www.TeamAssociated.com)  
[www.CompetitionX.com](http://www.CompetitionX.com)



## Manual

Examine each step carefully before building. Special notes will be listed for each step.

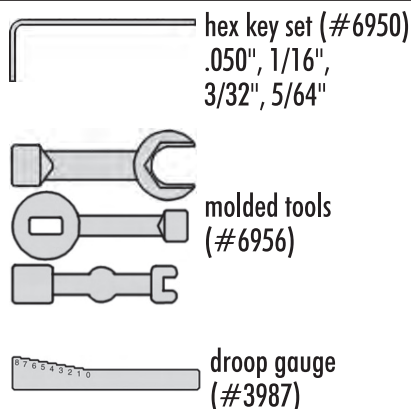
## Bags

Open the bags in order according to each step. Some bags contain a large amount of small parts. We recommend using a small container to keep the parts together.

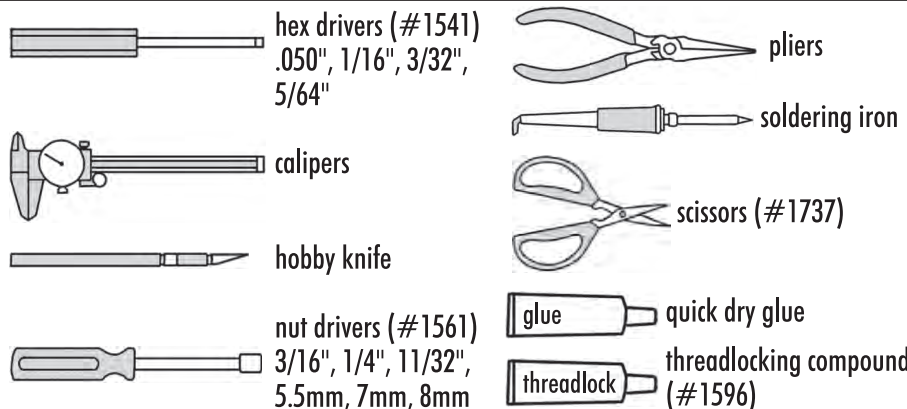
## Suppl.

We are constantly developing new parts to improve our kits. These changes, if any, will be noted on supplementary sheets located in the appropriate parts bags. Check each bag for these sheets before you start to build.

## Supplied



## Recommended



## Items Needed

You will need the following to complete you vehicle:

1. R/C two channel surface frequency radio system.
2. Electronic Speed Control.
3. R/C Electric Motor.
4. Battery pack.
5. Battery charger (peak detection recommended).
6. Pinion gear (see motor gearing chart).
7. 190mm Lexan body.
8. Wheels and tires.

## ASSOCIATED ELECTRICS, INC.

26021 Commercentre Drive  
Lake Forest, CA 92630-8853


## Bag A - Shocks



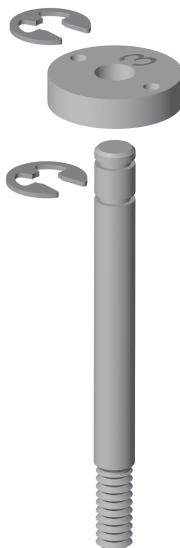
6299, qty 2  
e-clip



6465, qty 1  
#3 piston



31251, qty 1  
.26" gold shock  
shaft



**1:1**



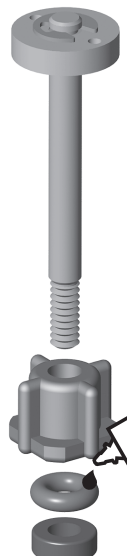
31120, qty 1  
seal retainer



5407, qty 1  
red o-ring



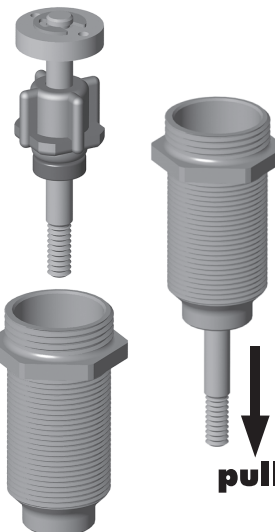
31120, qty 1  
o-ring spacer



**Shock Oil**  
**1 drop**



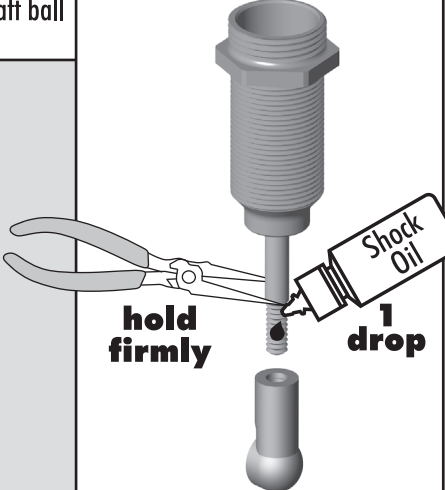
3985, qty 1  
threaded shock  
body




**pull**



31249, qty 1  
shock shaft ball  
cup

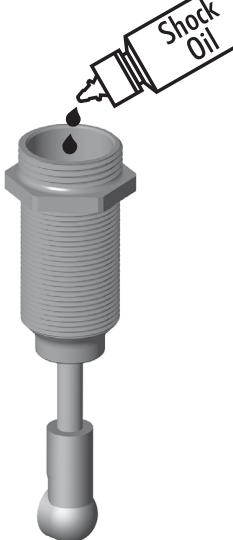


**hold firmly**  
**Shock Oil**  
**1 drop**



5423, qty 1  
40wt shock oil

5436, qty 1  
60wt shock oil



**Shock Oil**

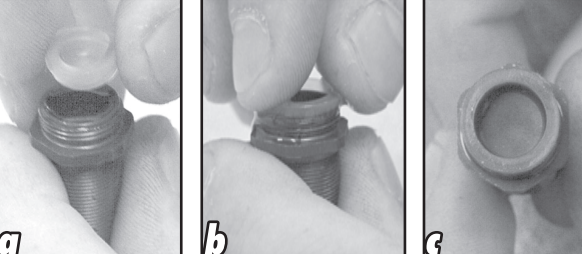
**front: 60wt**  
**rear: 40wt**



31120, qty 1  
VCS2 shock  
bladder



### Bladder installation




**a** **b** **c**


► With the shaft fully extended, place bladder onto the top of the shock body (a), displacing the extra oil (b). Make sure there are no air bubbles under the clear bladder (c). If there are, gently lift one side of the bladder to allow air bubbles to escape.



31120, qty 1  
VCS2 shock cap



31120, qty 1  
VCS2 foam,  
small

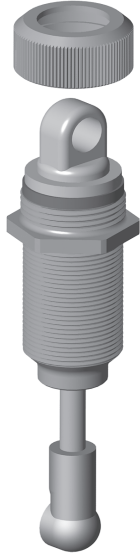


31120, qty 1  
VCS2 foam,  
large





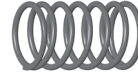
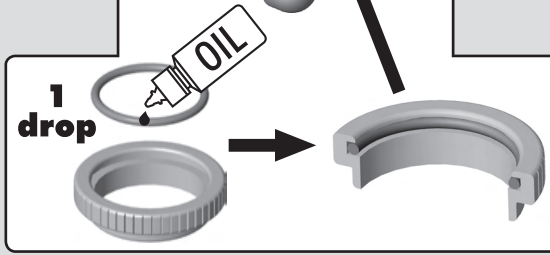
31121, qty 1  
VCS2 aluminum  
cap retainer



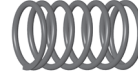
3948, qty 1  
threaded shock  
collar



3959, qty 1  
threaded shock  
collar o-ring



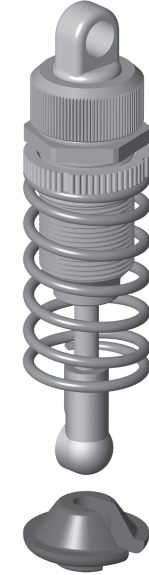
3946, qty 1  
spring, copper,  
25.0lb, **front**



3945, qty 1  
spring, red,  
22.0lb, **rear**



6475, qty 1  
spring cup



**build 4  
shocks**

## Bag B - Differentials

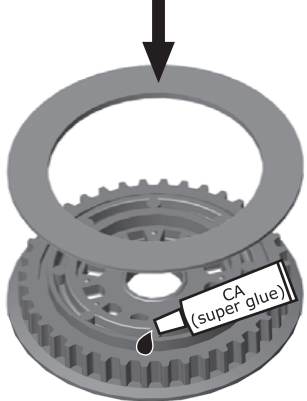


31169, qty 1  
diff pulley, 40T

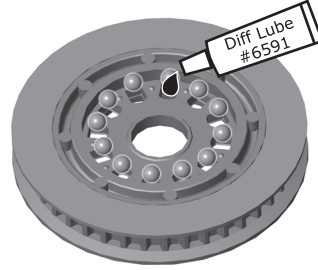


31169, qty 1  
diff pulley  
flange

**flat side up**



6581, qty 12  
3/32" carbide  
diff ball

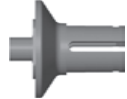


**fill all 12 holes**

• 1:1



3906, qty 2  
diff d-ring

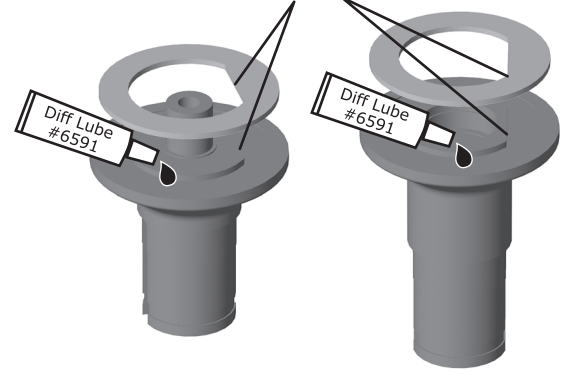


31167, qty 1  
short diff half



31167, qty 1  
long diff half

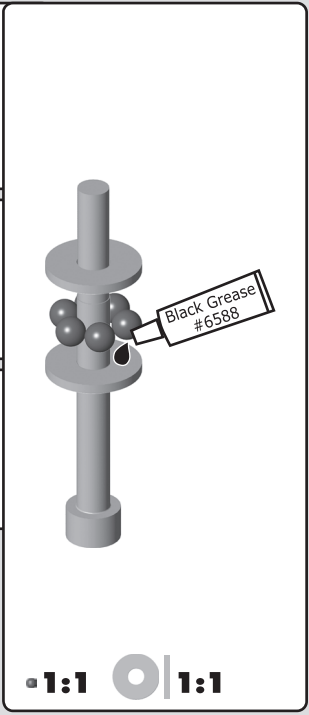
**align notches**



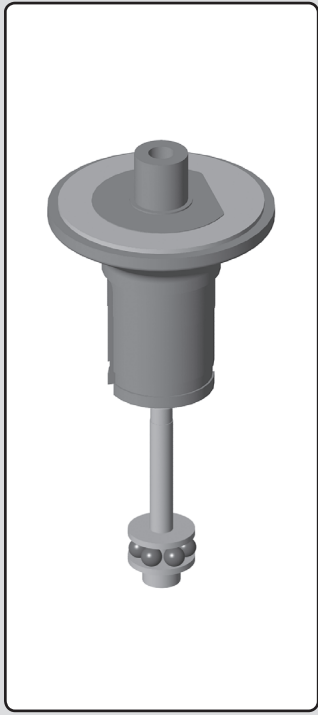
  
6574, qty 6  
5/64" diff thrust ball


  
6573, qty 2  
thrust washer

  
9274, qty 1  
thrust screw




• 1:1  1:1



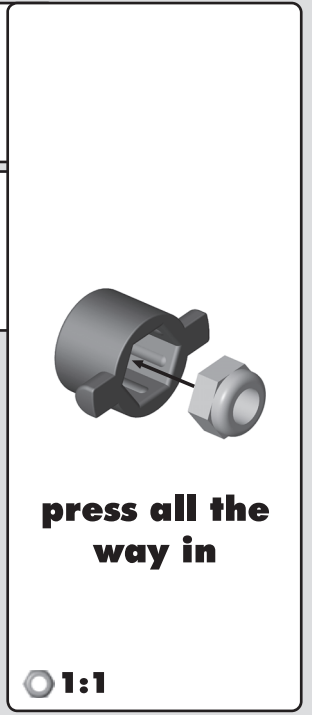
  
31400, qty 2  
5x8x2.5 diff bearing




 1:1

  
31166, qty 1  
2-56 locknut

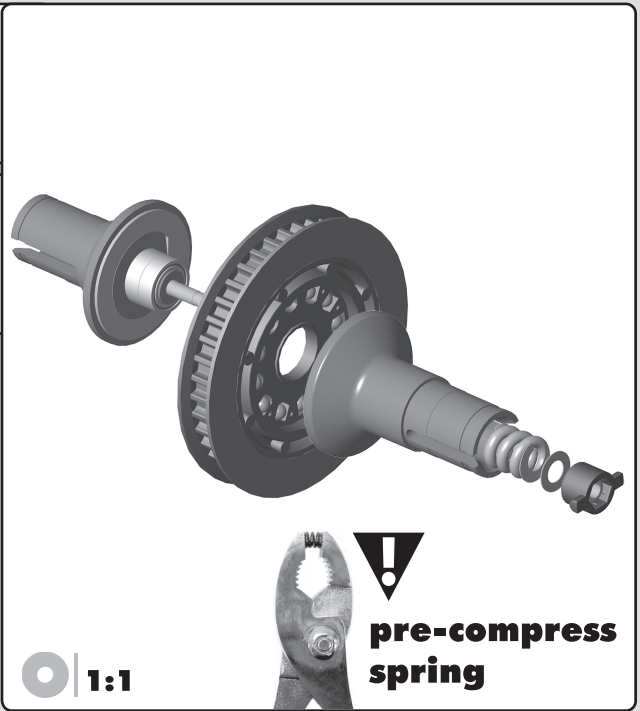
  
31167, qty 1  
diff t-nut



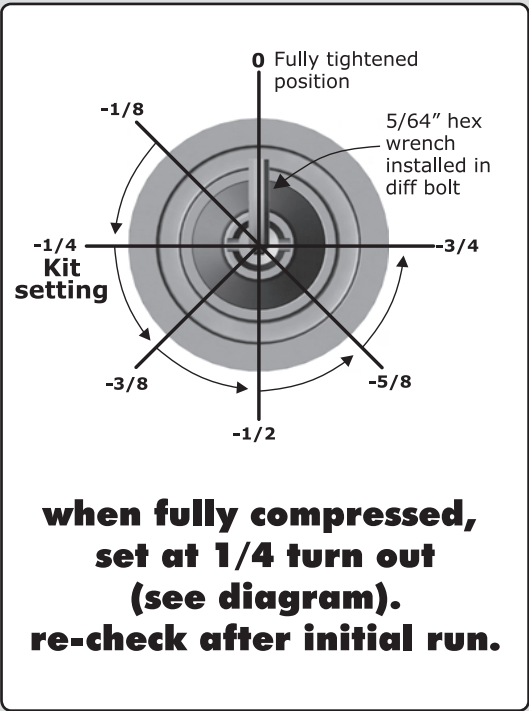
 1:1

  
6582, qty 1  
diff spring

  
31166, qty 1  
washer

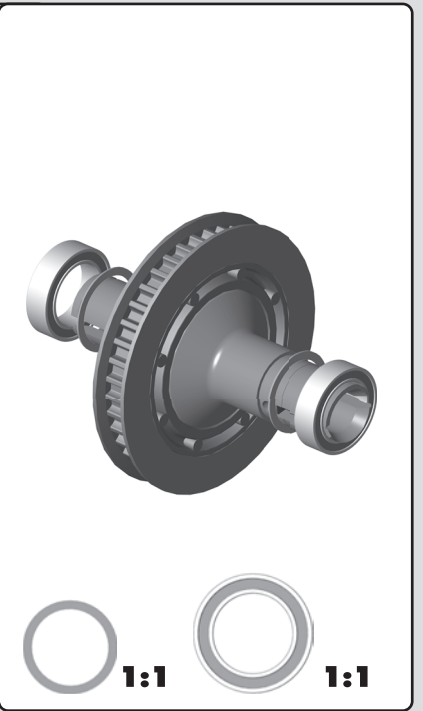


 1:1



  
31162, qty 2  
diff shim

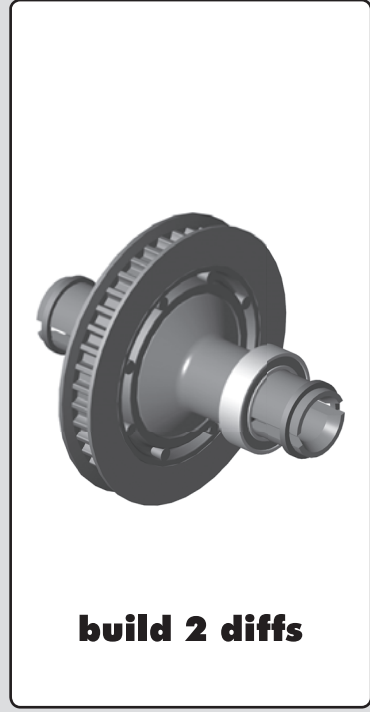
  
31401, qty 2  
10x15x4 bearing



 1:1


 1:1


  
31168, qty 2  
outdrive rings




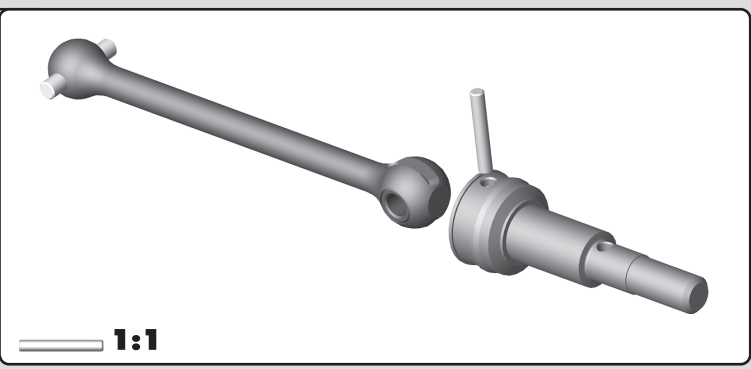
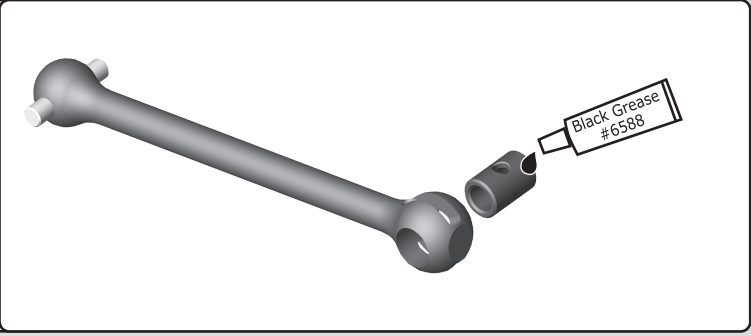
**Bag C - CVA's**

  
31227, qty 1  
CVA coupler

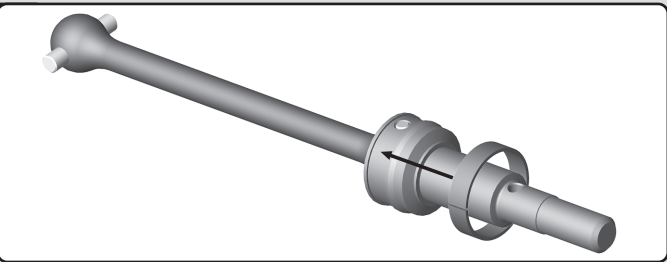
  
31232, qty 1  
CVA bone

  
31227, qty 1  
CVA crosspin

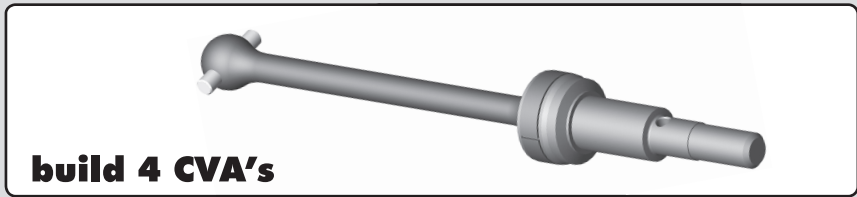
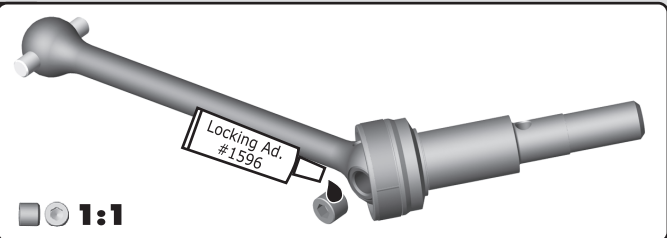
  
31231, qty 1  
CVA axle



  
31237, qty 1  
CVA crosspin  
retaining clip




  
31500, qty 1  
M3x2.5 setscrew




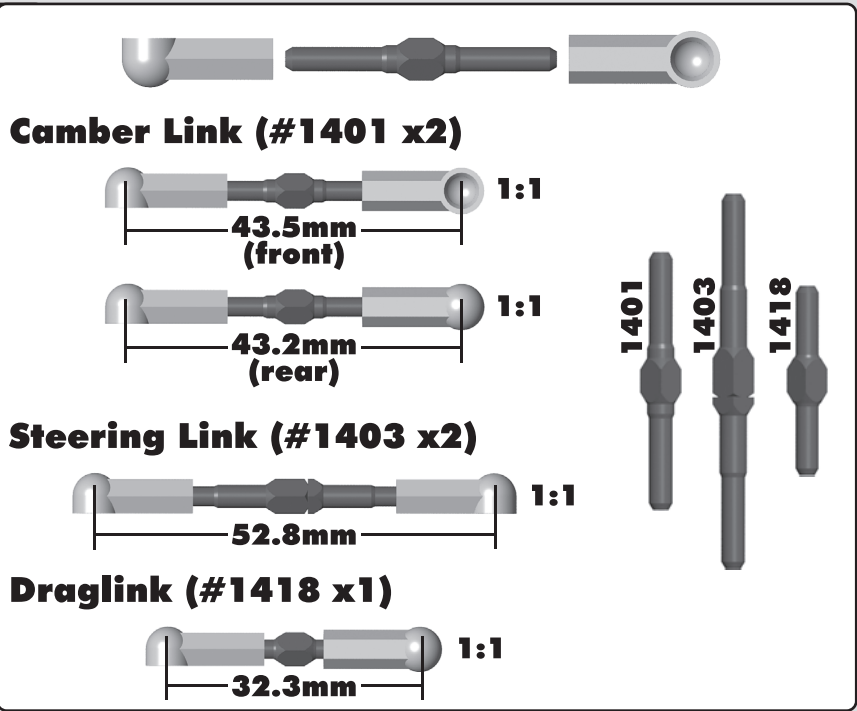
**Turnbuckles**

  
6274, qty 14  
ballcup

  
1401, qty 4  
ti turnbuckle,  
1.33", camber

  
1403, qty 2  
ti turnbuckle,  
1.65", steering

  
1418, qty 1  
ti turnbuckle,  
0.825", draglink



## Steering



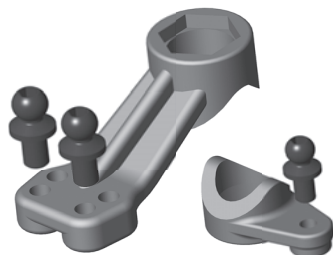
31280, qty 3  
ballstud, black,  
5mm



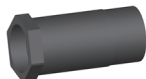
31245, qty 1  
steering  
bellcrank



31245, qty 1  
steering servo  
saver



31403, qty 2  
4x7x2.5 bearing



31241, qty 1  
servo saver tube



31243, qty 1  
servo saver  
spring washer

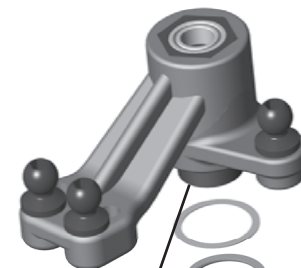


31243, qty 1  
servo saver  
spring



31242, qty 1  
servo saver  
knurled nut

**pre-compress spring  
with pliers before  
installing**



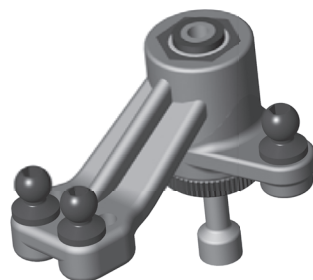
**tighten until flush**



31244, qty 1  
steering post  
spacer

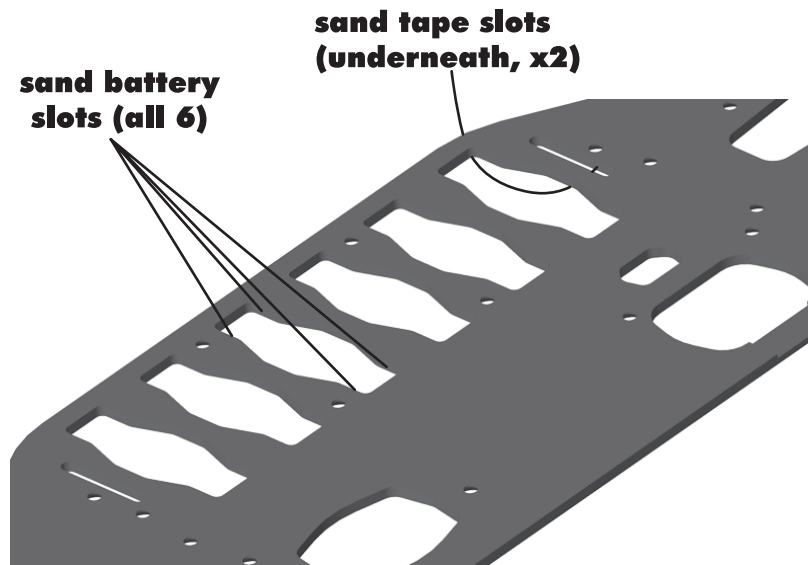


31240, qty 1  
steering  
bellcrank post



31138, qty 1  
lower chassis


## Chassis Prep



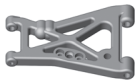
## Bag D - Bulkheads



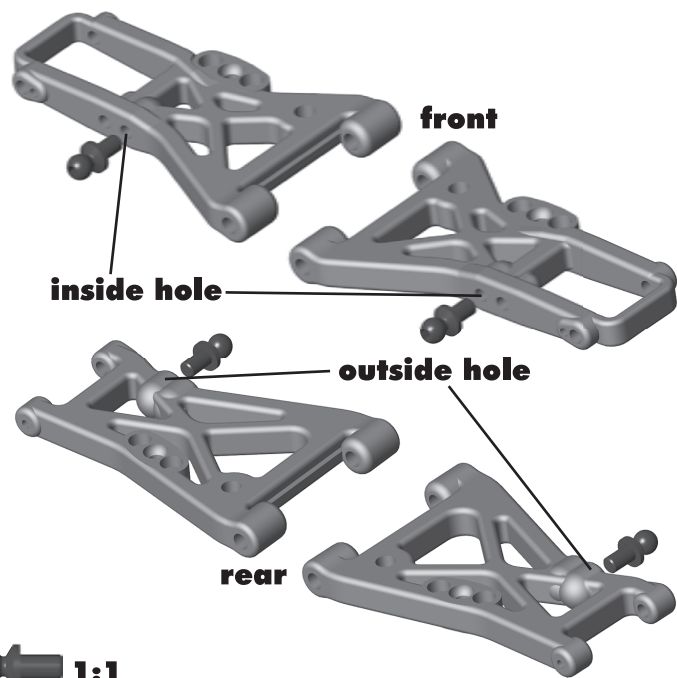
31280, qty 4  
ballstud, black,  
5mm



31205, qty 2  
suspension arm,  
front



31206, qty 2  
suspension arm,  
rear




**front**

**inside hole**

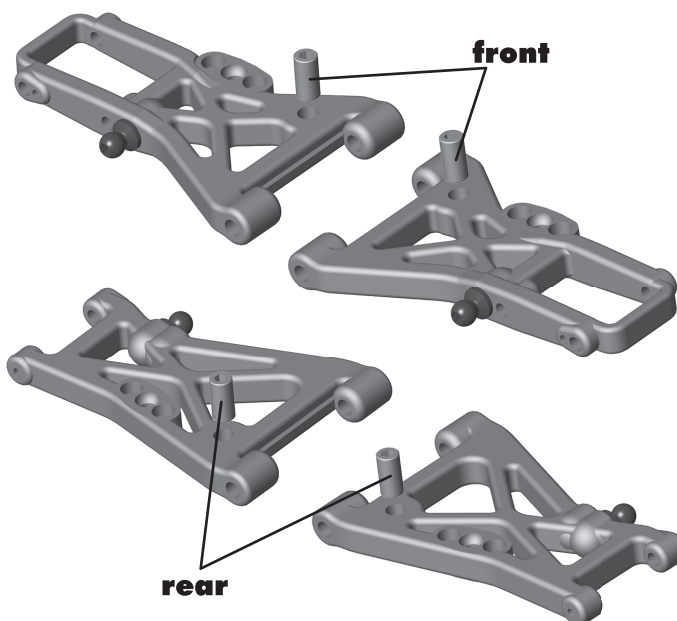
**outside hole**

**rear**

 1:1




25227, qty 4  
M4x8 setscrew



**front**

**rear**

 1:1



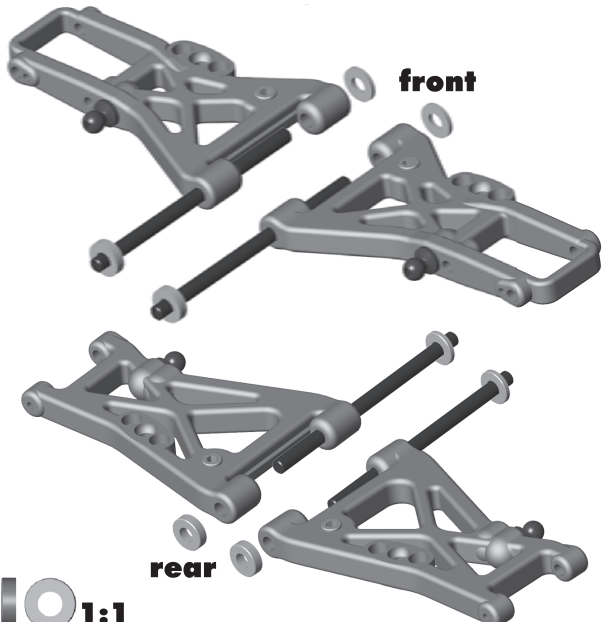
31200, qty 4  
wheelbase shim,  
2mm



31200, qty 4  
wheelbase shim,  
1mm






31221, qty 4  
inner hinge pin



**front**

**rear**

 1:1  
 1:1  
 1:1



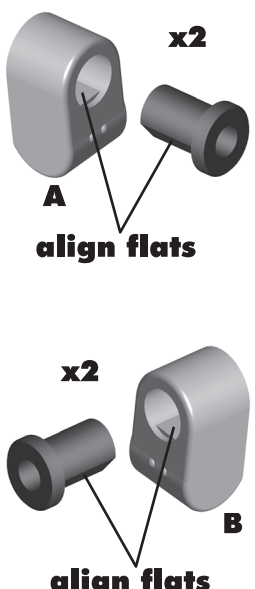
31197, qty 2  
arm mount nut



31195, qty 2  
arm mount A



31196, qty 2  
arm mount B



**x2**

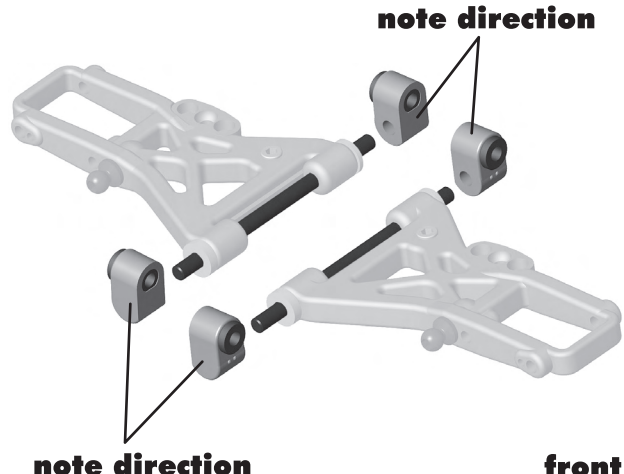
**A**

**align flats**

**x2**

**B**

**align flats**

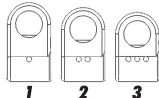


**note direction**

**note direction**


**front**

### Arm Mount System



1 dot: Low  
2 dots: Mid  
3 dots: High




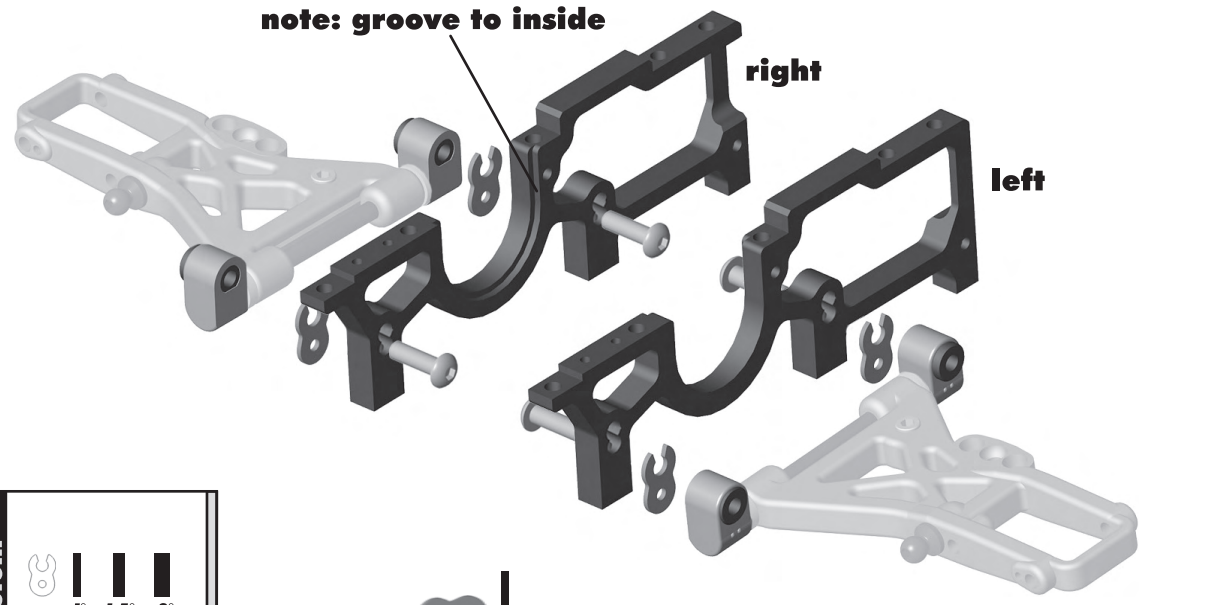
  
25211, qty 4  
M3x10 bhcs

  
31198, qty 4  
arm mount  
shim, 1 deg.

  
31146, qty 1  
bulkhead, right  
front

  
31147, qty 1  
bulkhead, left  
front

**Toe Shim System**

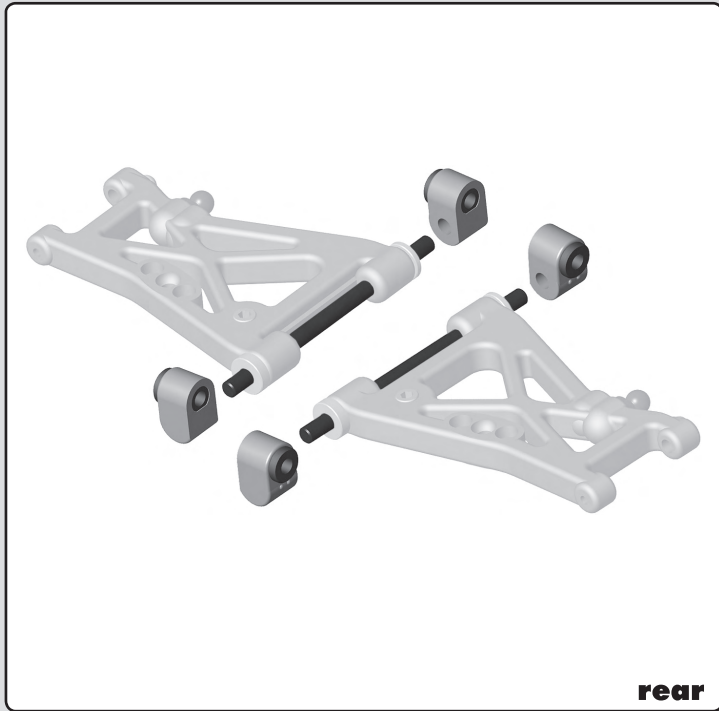
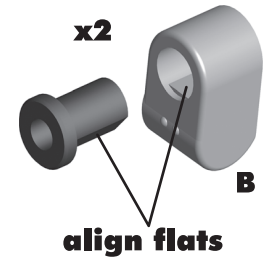
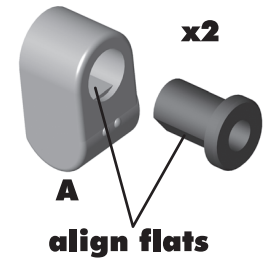
 1:1  1:1


front

  
31197, qty 2  
arm mount nut

  
31195, qty 2  
arm mount A

  
31196, qty 2  
arm mount B

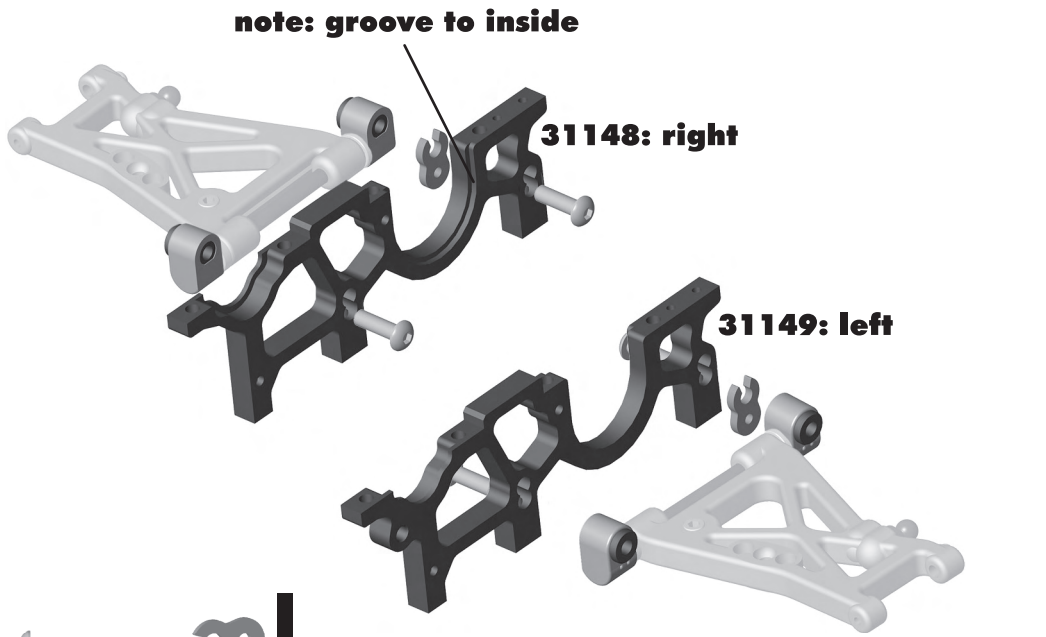


  
25211, qty 4  
M3x10 bhcs

  
31198, qty 2  
arm mount  
shim, 2 deg.

  
31148, qty 1  
bulkhead, right  
rear

  
31149, qty 1  
bulkhead, left  
rear

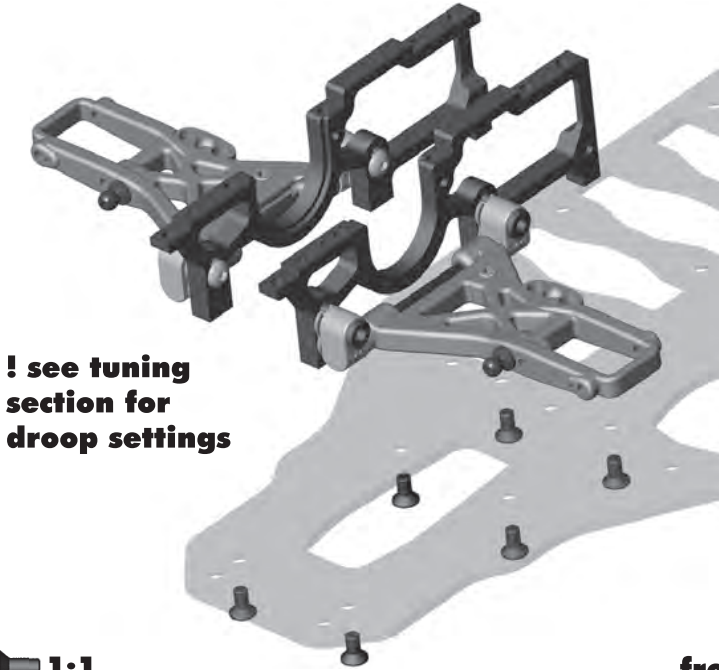


 1:1  1:1

rear



31541, qty 6  
M3x6 fhcs



**! see tuning section for droop settings**

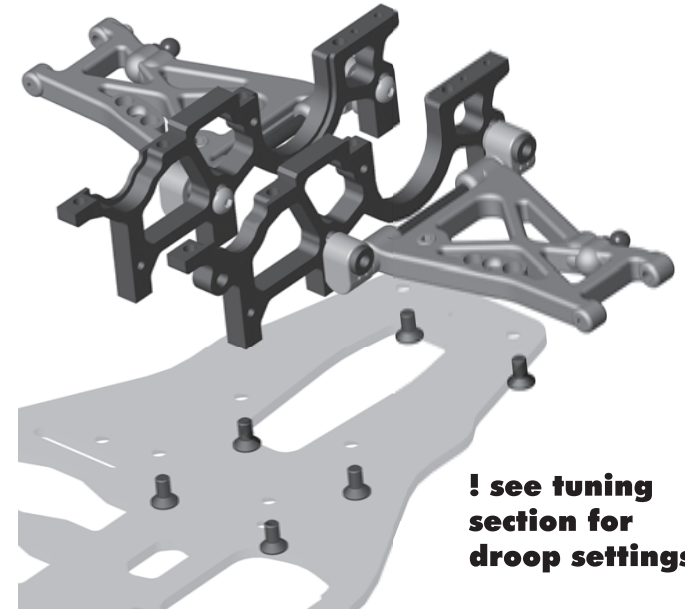


1:1

front



31541, qty 6  
M3x6 fhcs



**! see tuning section for droop settings**



1:1

rear



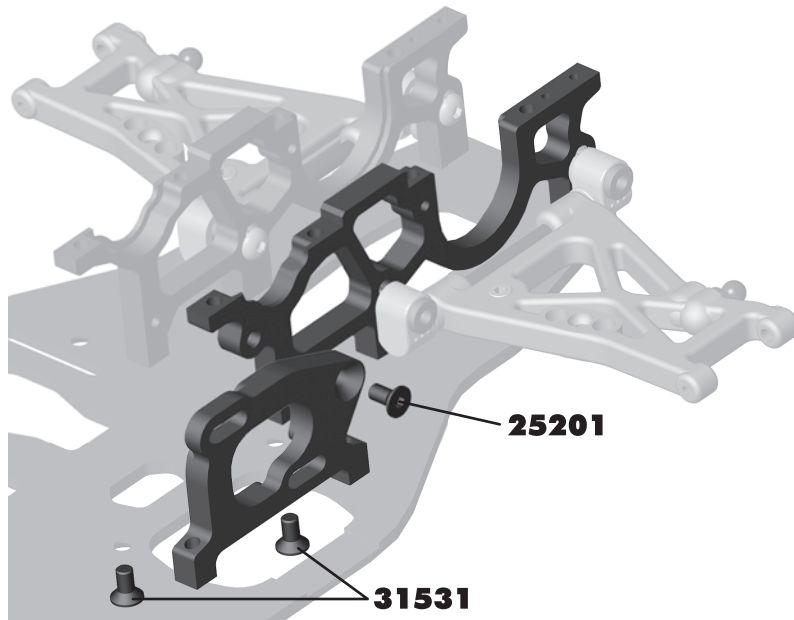
31541, qty 2  
M3x6 fhcs



25201, qty 1  
M3x8 fhcs



31152, qty 1  
motor mount



25201

31531



1:1



1:1

rear



31284, qty 2  
ballstud, silver,  
8mm

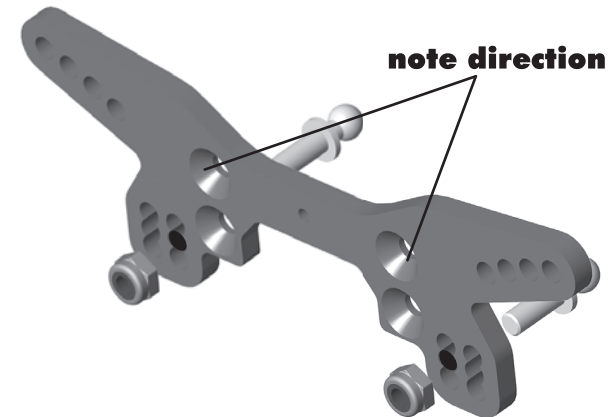


31550, qty 2  
M3 aluminum  
locknut, blue



31142, qty 1  
shock tower,  
front

**Shock Towers**



**note direction**



1:1

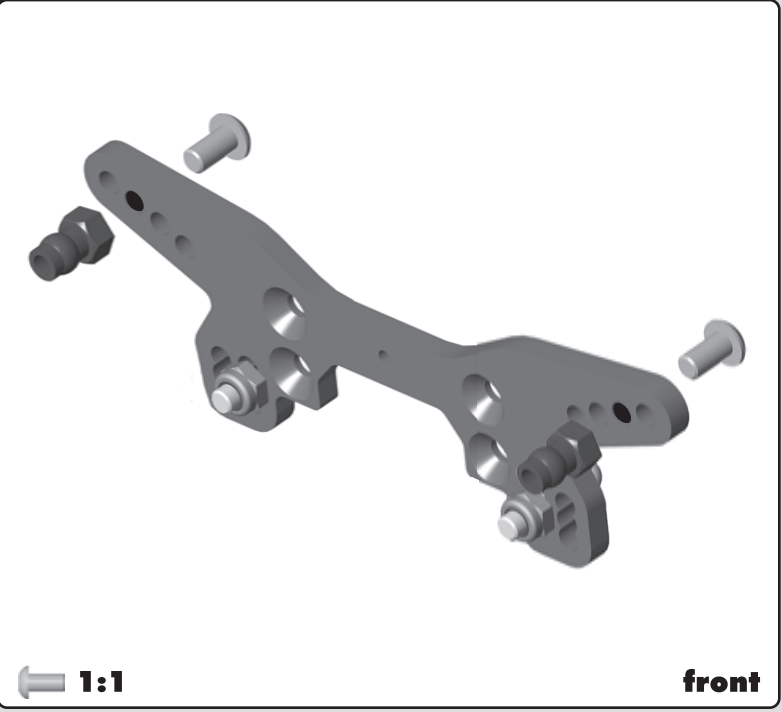


1:1

front

  
31531, qty 2  
M3x6 bhcs

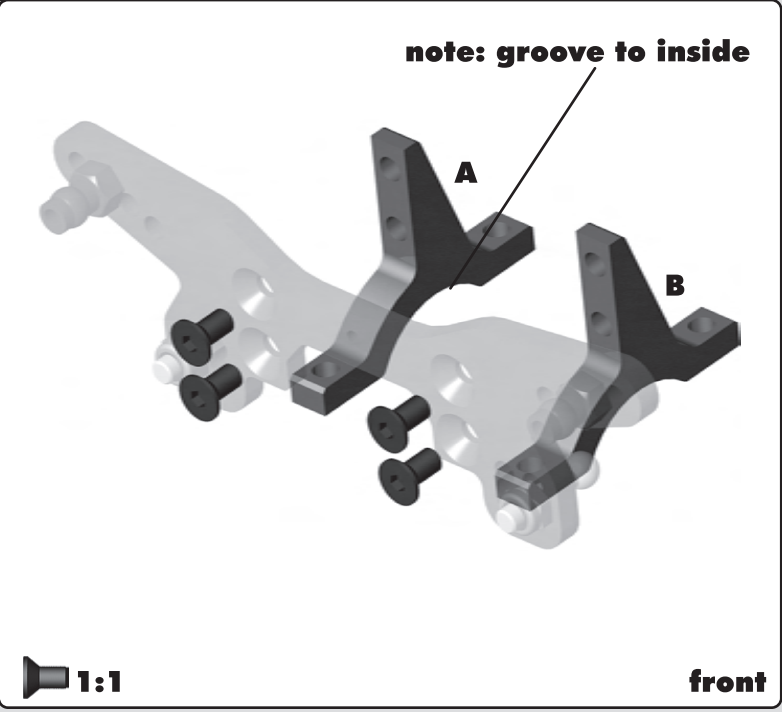
  
31250, qty 2  
shock bushing




  
31541, qty 4  
M3x6 fhcs

  
31150, qty 1  
bearing cap A

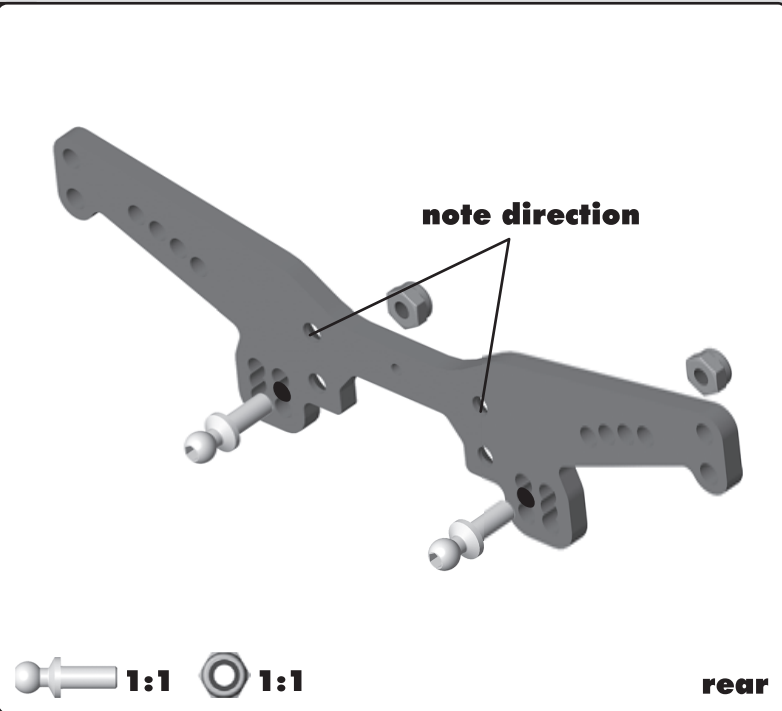
  
31151, qty 1  
bearing cap B



  
31284, qty 2  
ballstud, silver,  
8mm

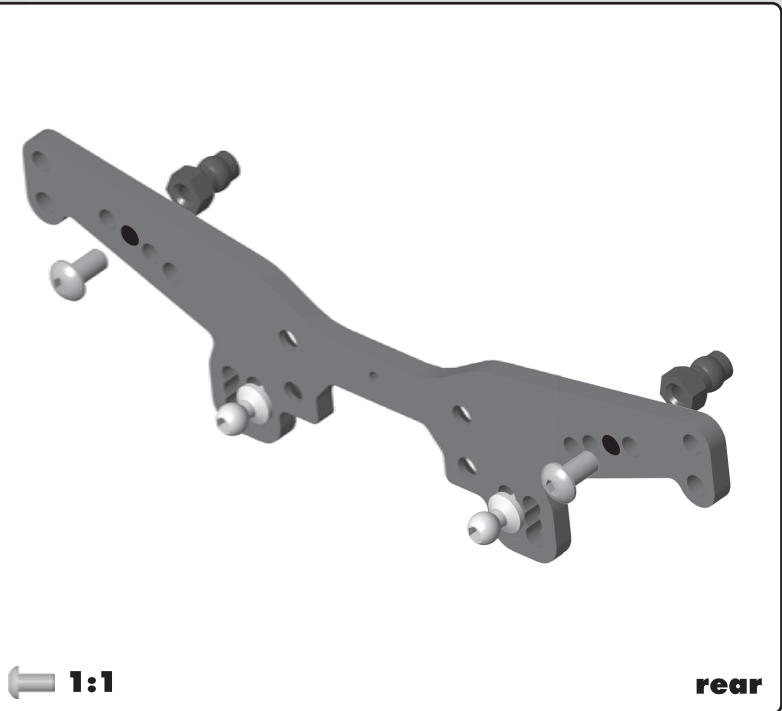
  
31550, qty 2  
M3 aluminum  
locknut, blue

  
31143, qty 1  
shock tower,  
rear



  
31531, qty 2  
M3x6 bhcs

  
31250, qty 2  
shock bushing

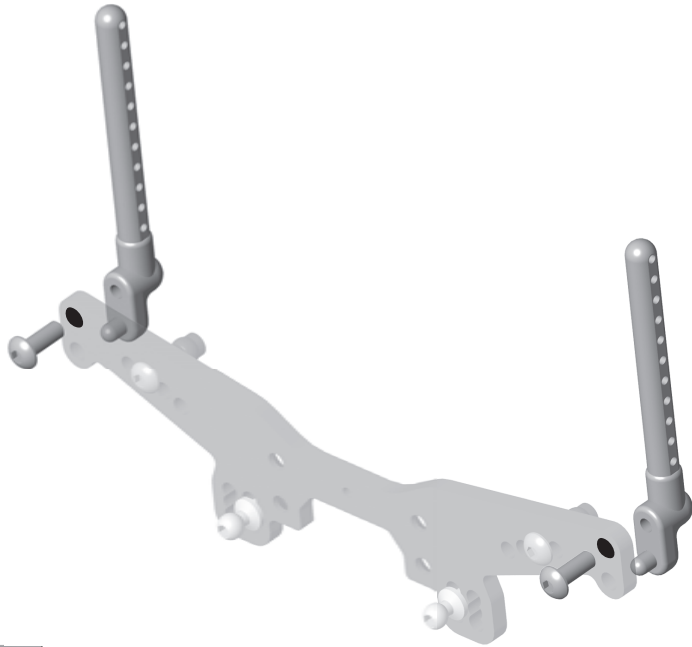




31532, qty 2  
M3x8 bhcs



2230, qty 2  
body mount,  
rear

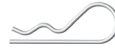


1:1

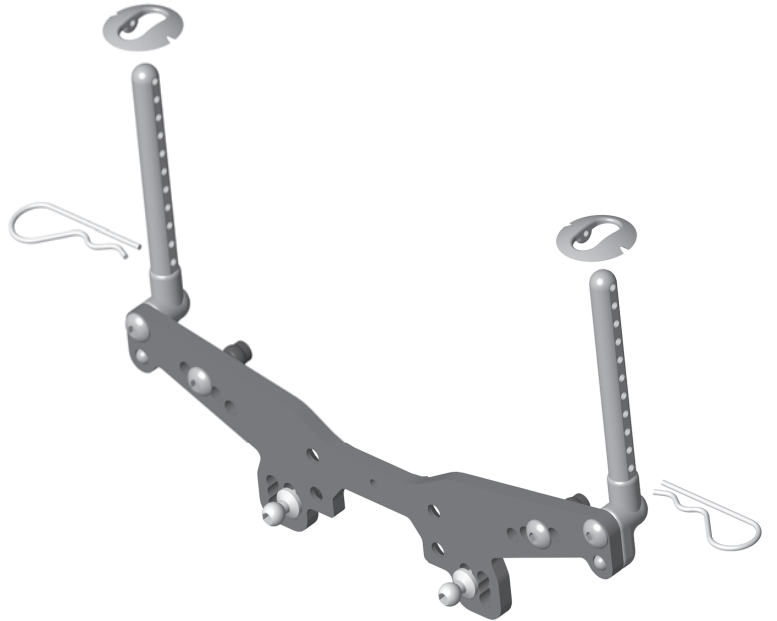
rear



3897, qty 2  
swivel mounts



6332, qty 2  
body clips



rear



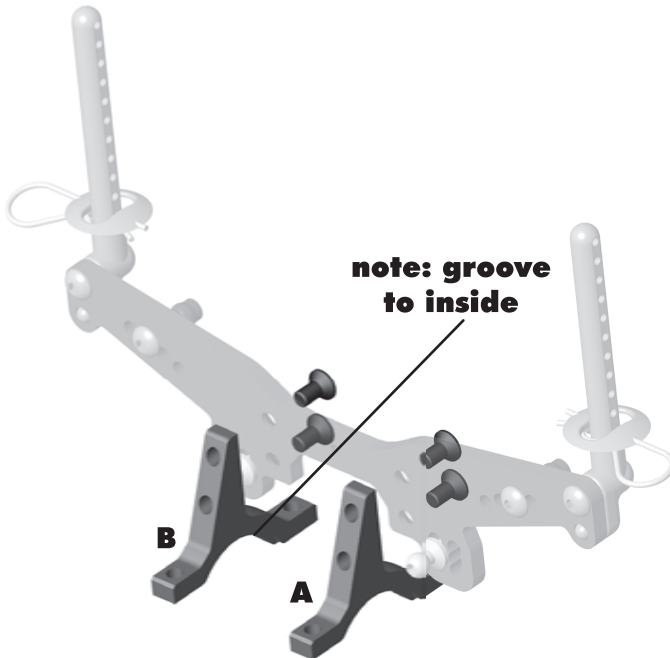
31541, qty 4  
M3x6 fhcs



31150, qty 1  
bearing cap A



31151, qty 1  
bearing cap B



1:1

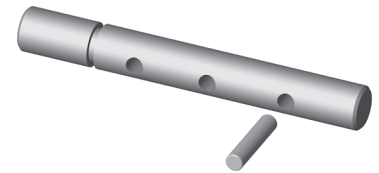
rear



3919, qty 1  
input shaft pin



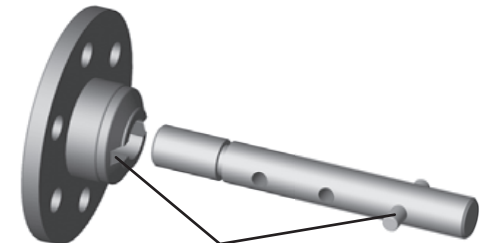
31153, qty 1  
centershaft



1:1



31154, qty 1  
spur gear hub

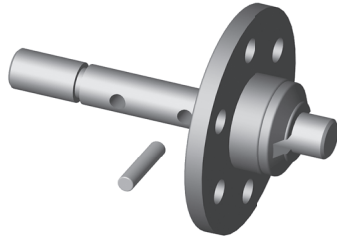


align

**Bag E - Center Shaft**



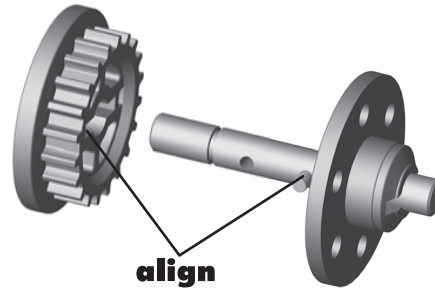
3919, qty 1  
input shaft pin



1:1



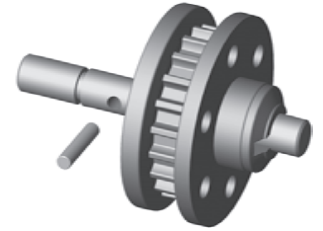
31157, qty 1  
center pulley  
(20T)



align



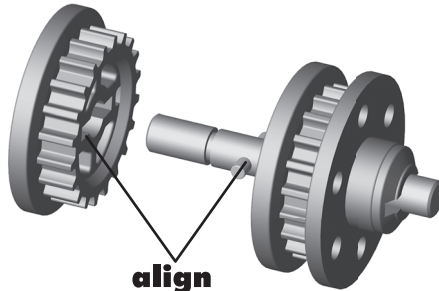
3919, qty 1  
input shaft pin



1:1



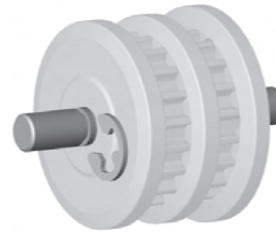
31157, qty 1  
center pulley  
(20T)



align



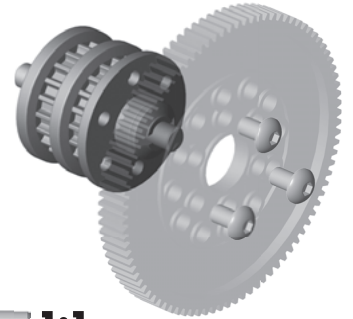
31160, qty 1  
e-clip, 3mm



1:1



31164, qty 1  
spur gear (87T)



31530, qty 3  
M3x5 bhcs

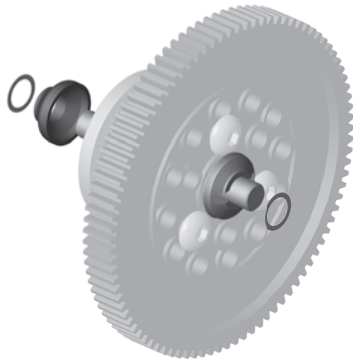
1:1



31162, qty 2  
4mm drivetrain  
shim



31161, qty 1  
centershaft  
spacer



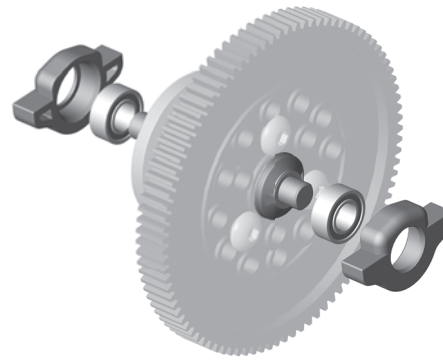
1:1



31402, qty 2  
8x4x3 bearing



31163, qty 2  
spur gear  
bearing cap



1:1

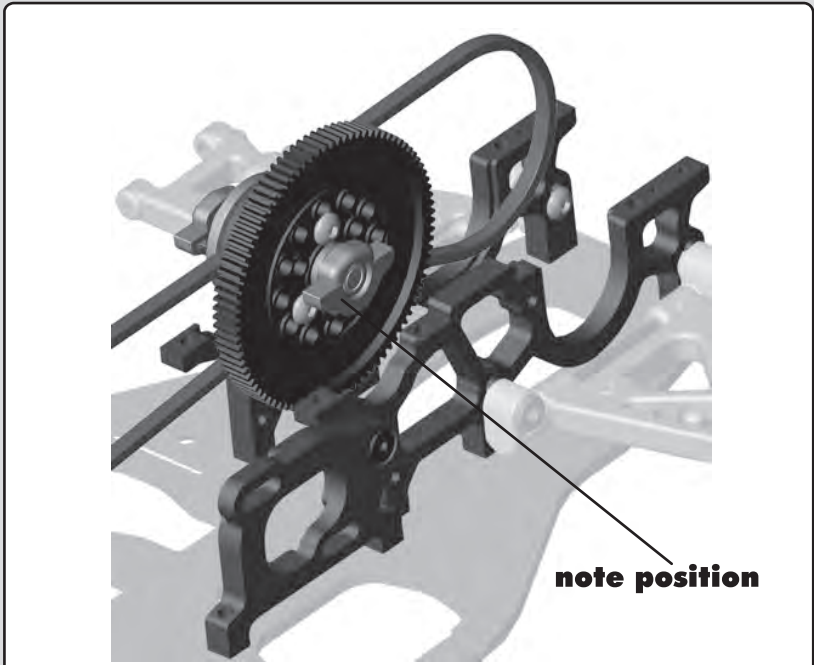
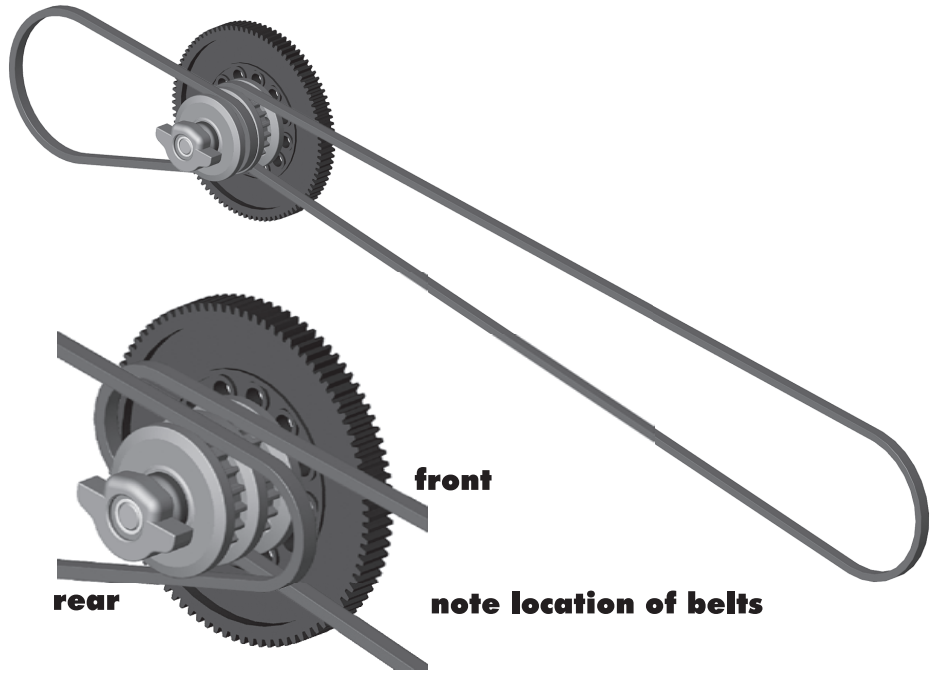




31187, qty 1  
front belt



31188, qty 1  
rear belt

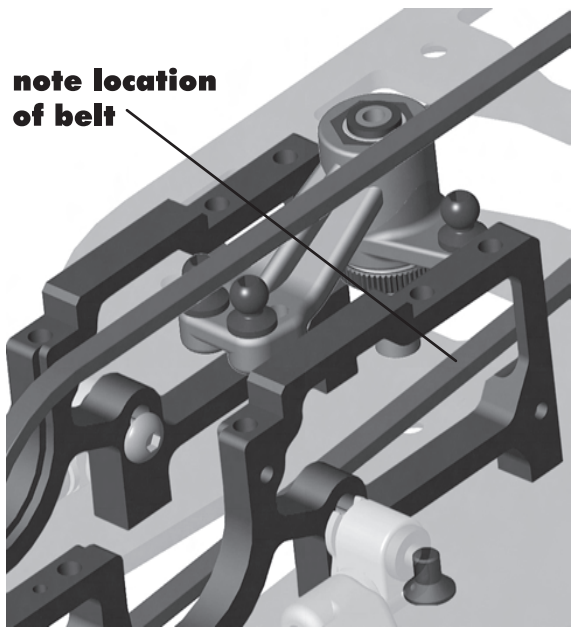


rear

## Bellcrank - Install



31540, qty 1  
M3x5 fhcs



1:1

front

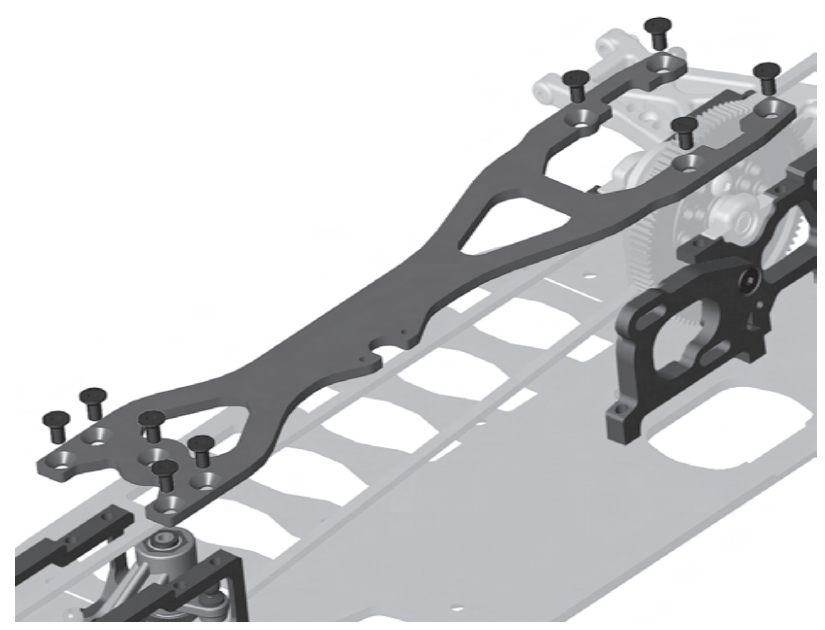
## Top Deck - Install



31541, qty 9  
M3x6 fhcs



31139, qty 1  
top deck

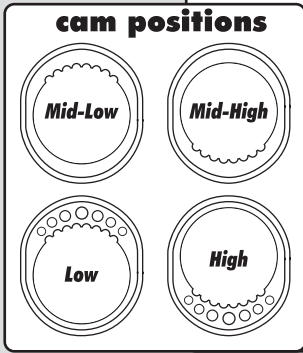


1:1

Differentials - Install

  
31185, qty 2  
diff bearing cam

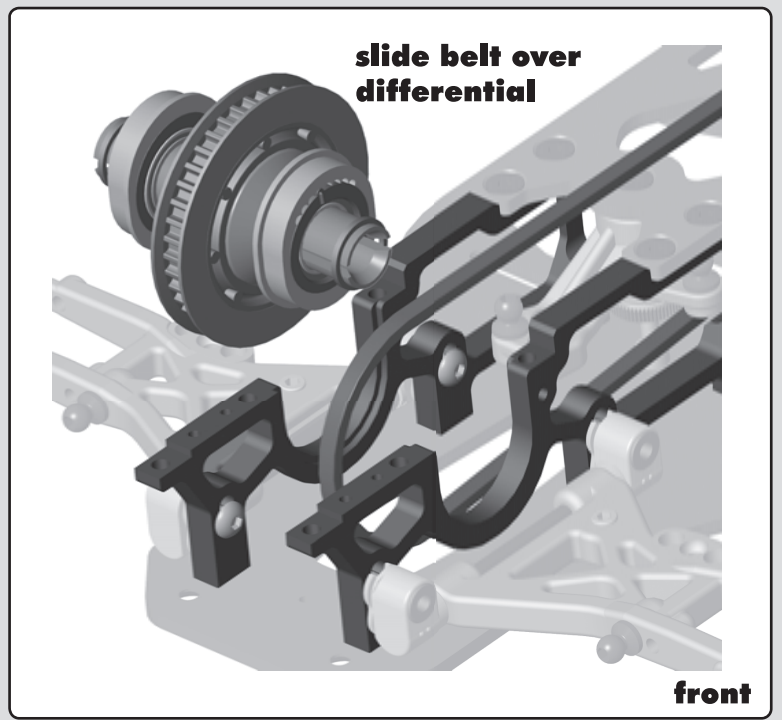
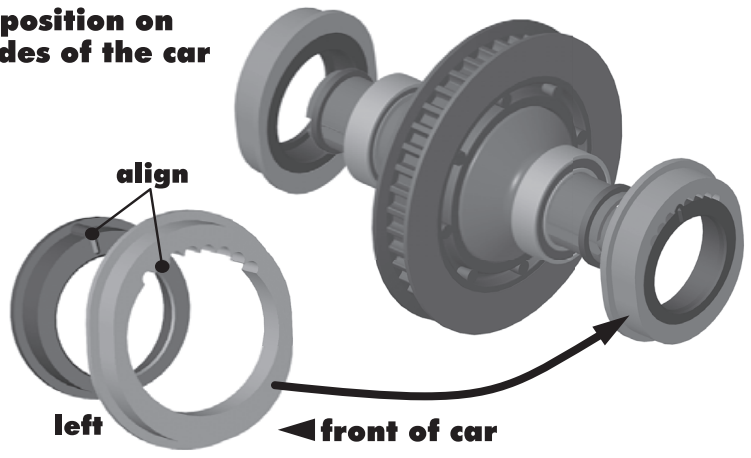
  
31186, qty 2  
diff bearing cam holder



**match right side cam position to the left side cam position**

**NOTE:**  
always use the same cam position on both sides of the car

**front diff cam position**



  
31531, qty 4  
M3x6 bhcs



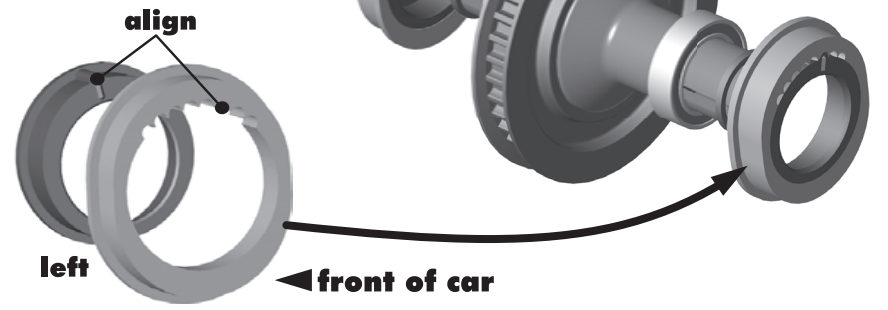
  
31185, qty 2  
diff bearing cam

  
31186, qty 2  
diff bearing cam holder

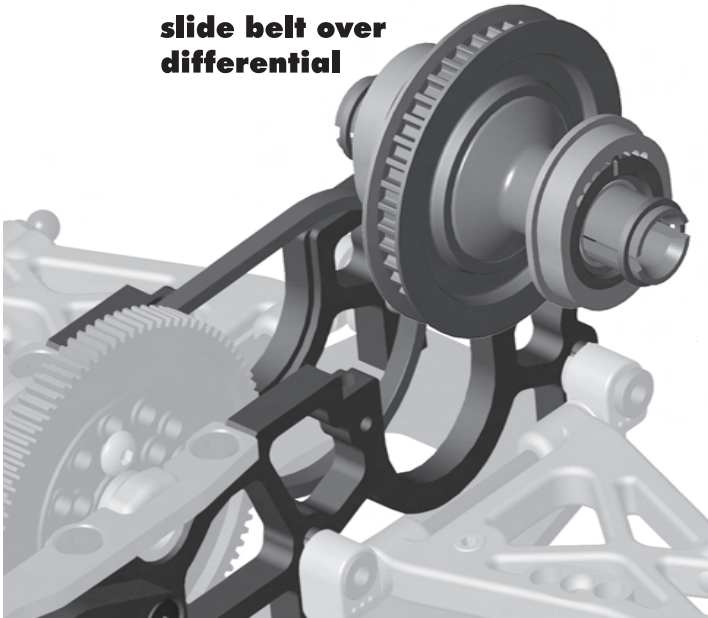
**match right side cam position to the left side cam position**

**NOTE:**  
always use the same cam position on both sides of the car

**rear diff cam position**



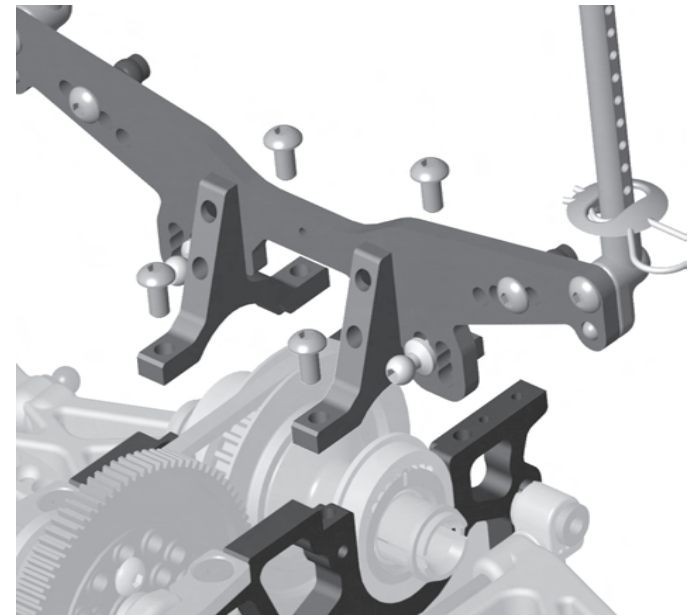
**slide belt over differential**



**rear**



31531, qty 4  
M3x6 bhcs



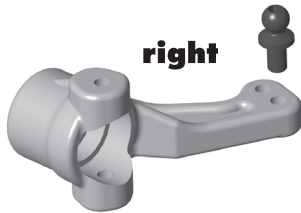
**1:1**

**rear**



31280, qty 2  
ballstud, 5mm, black

**right**



**note direction**

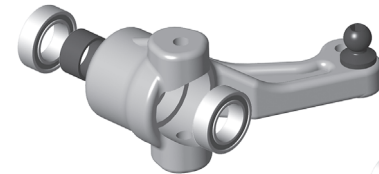
**left**



**1:1**



31404, qty 4  
6x10x4 bearing



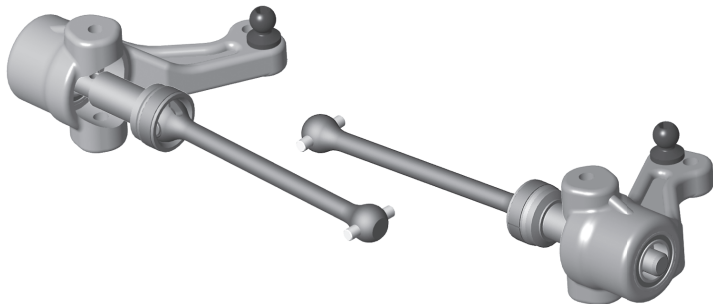
31233, qty 2  
axle crush tube

**1:1**

**Bag F - Suspension**



31215, qty 2  
steering block



31214, qty 4  
caster block bushing



31212, qty 2  
caster block, 4°

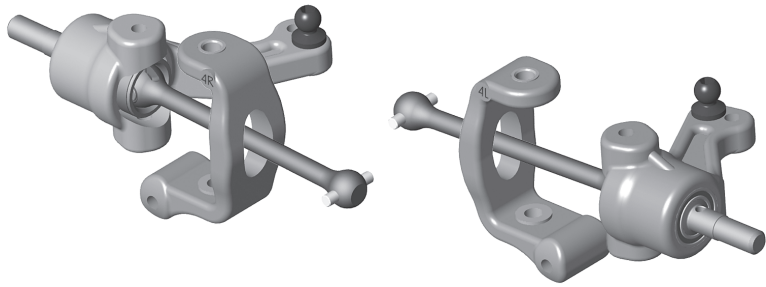
**note direction**

**right**

**left**



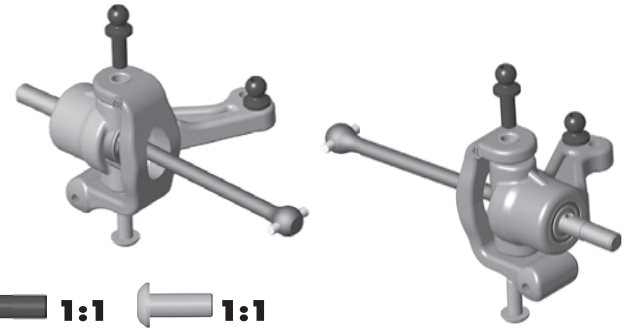




31281, qty 2  
ballstud, black,  
8mm



31532, qty 2  
M3x8 bhcs



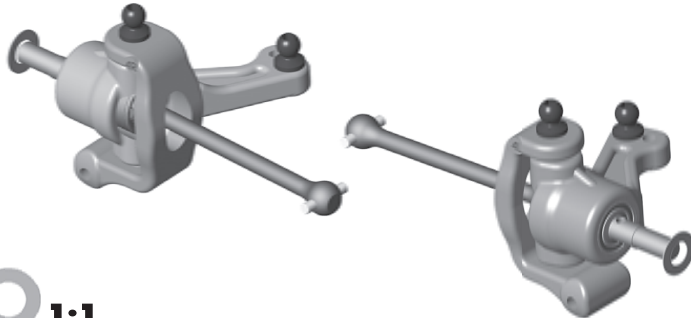
1:1



1:1



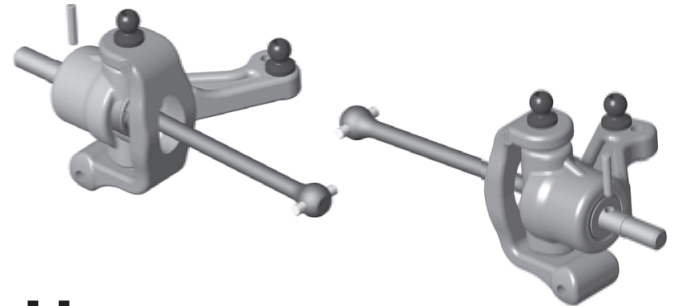
31162, qty 2  
axle shim



1:1



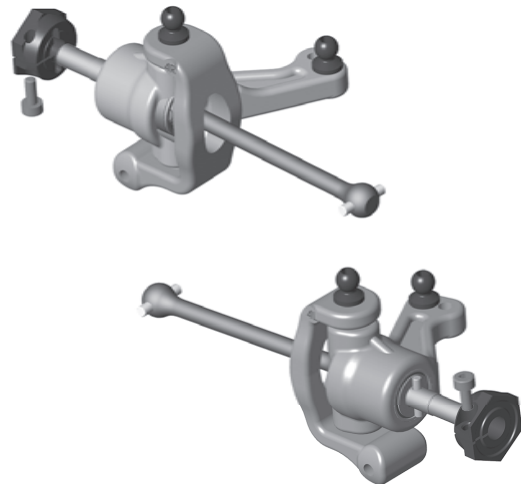
3919, qty 2  
axle pin



1:1



31511, qty 2  
M2x5 shcs



1:1



31281, qty 2  
ballstud, black,  
8mm



31286, qty 2  
1mm aluminum  
shim, blue



31218, qty 2  
rear hub carrier,  
0 degree

right



left



1:1



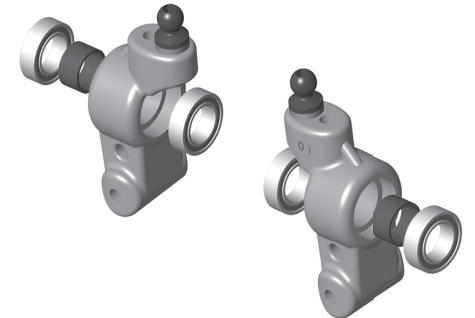
1:1



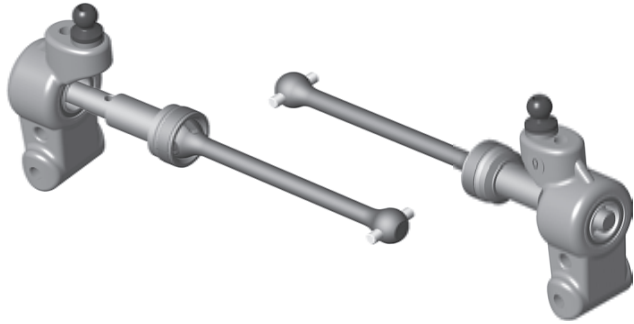
31404, qty 4  
6x10x4 bearing



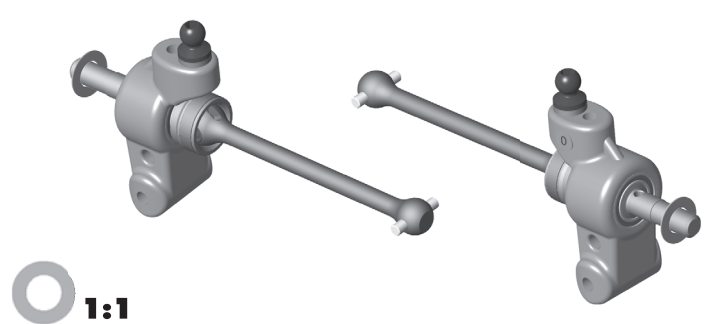
31233, qty 2  
axle crush tube



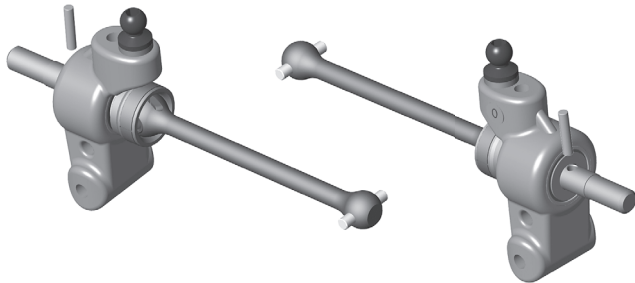
1:1



31162, qty 2  
axle shim



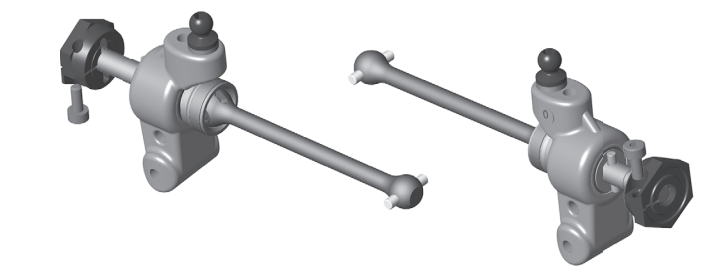
31234, qty 2  
clamping wheel hex



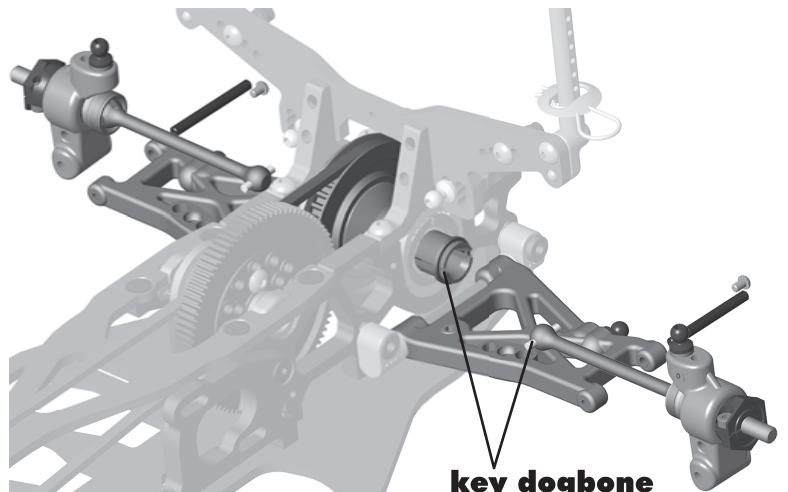
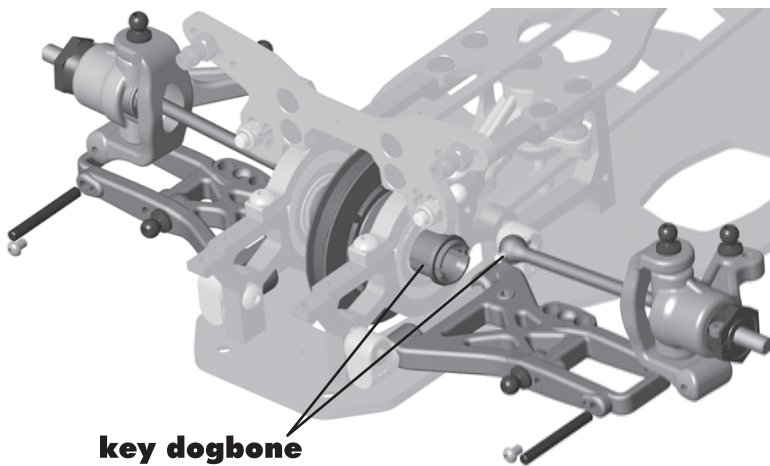
31511, qty 2  
M2x5 shcs



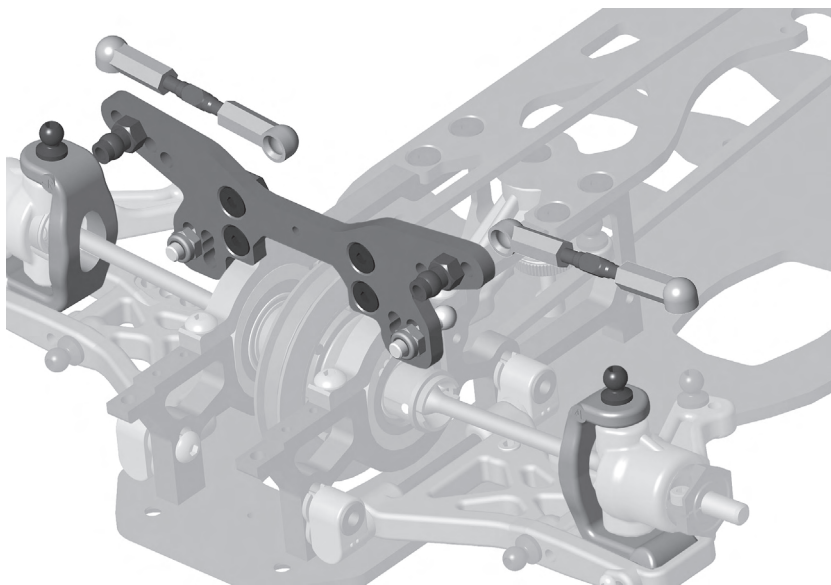
31234, qty 2  
clamping wheel hex



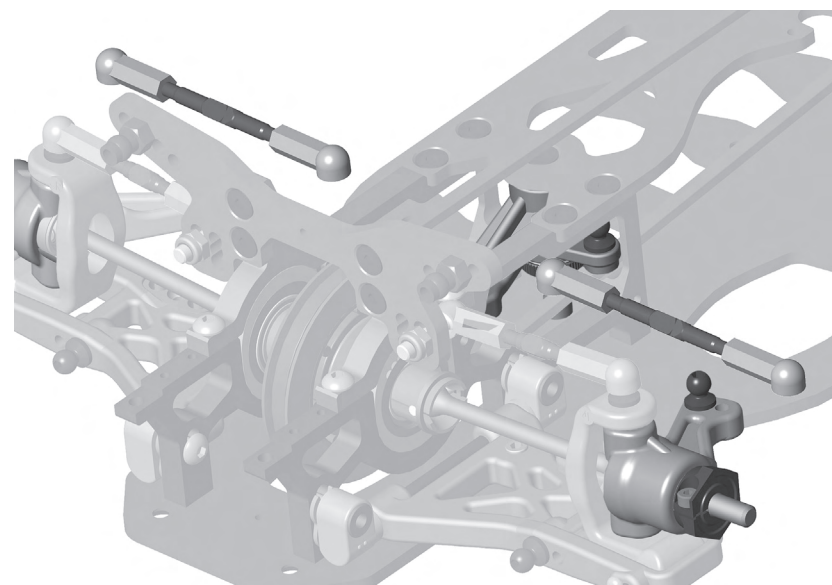
31222, qty 2  
hinge pin, outer



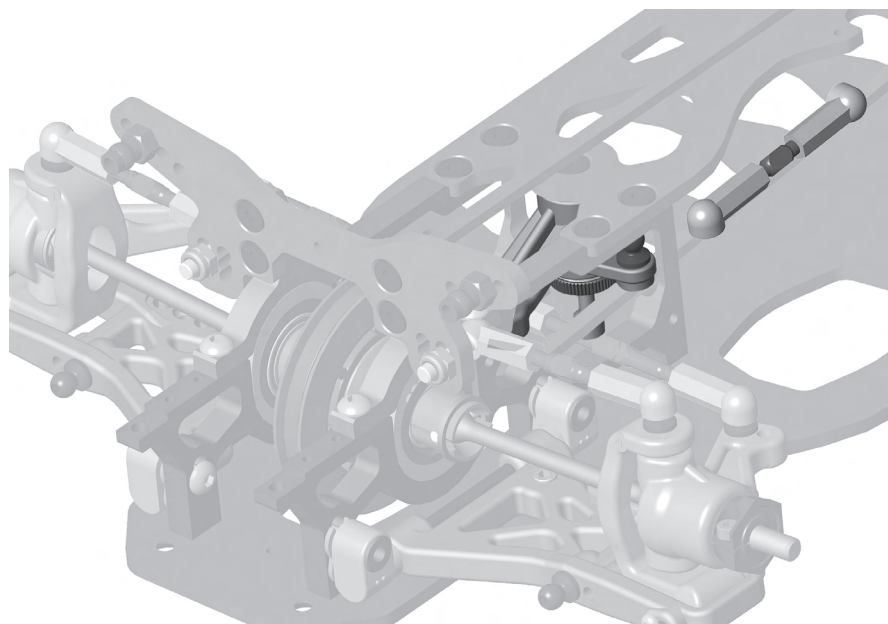
Turnbuckles - Install



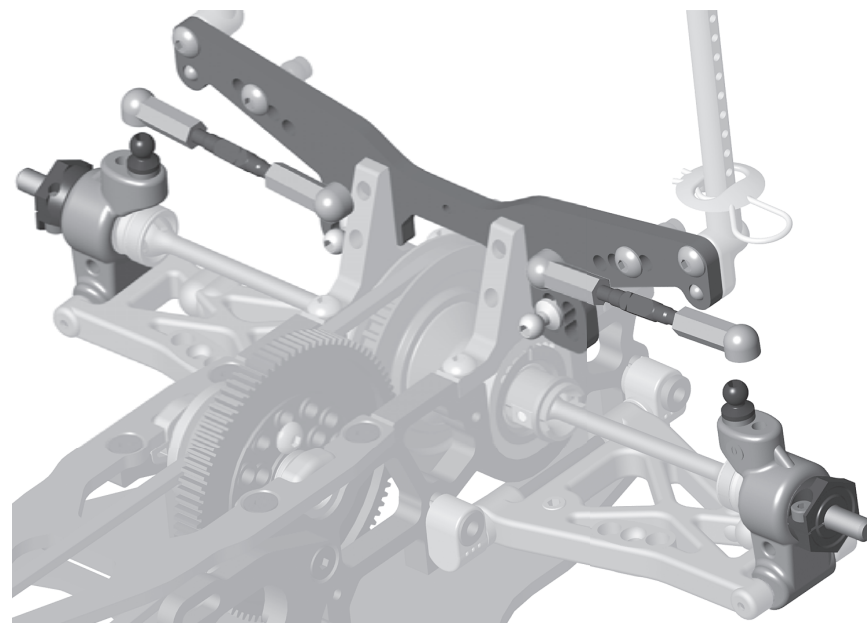
front - camber links



front - steering links



front - draglink

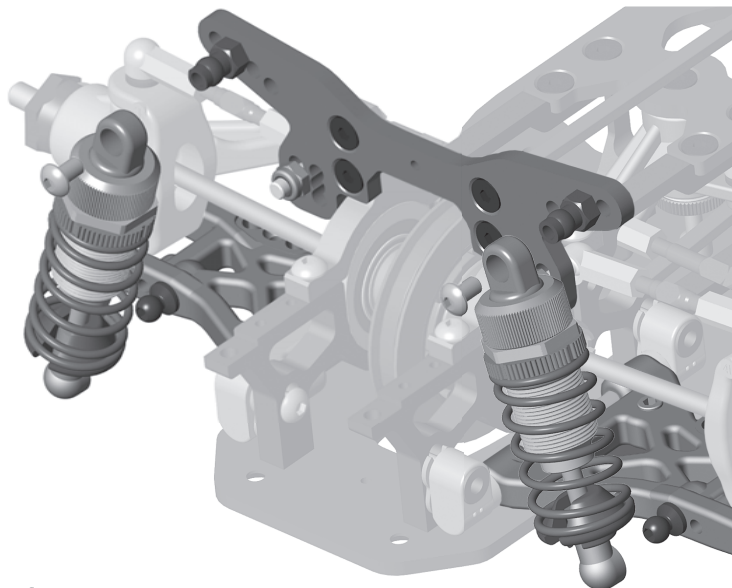


rear - camber links

## Bag G - Shocks



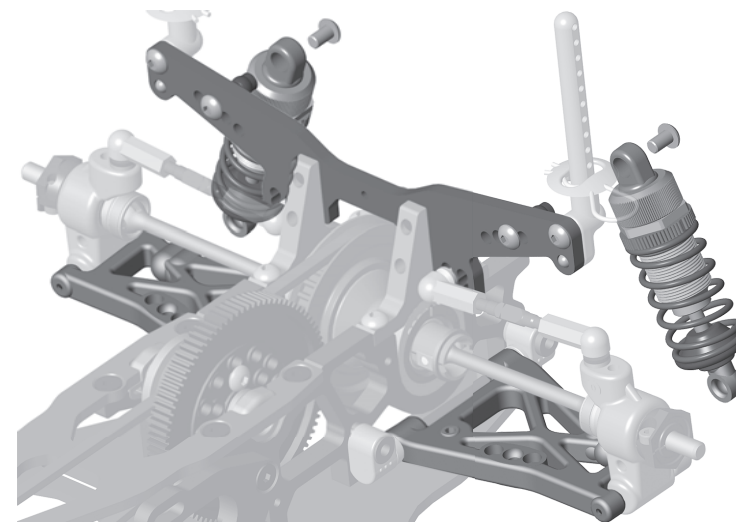
31530, qty 2  
M3x5 bhcs



front



31530, qty 2  
M3x5 bhcs



rear

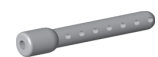
## Front Bumper



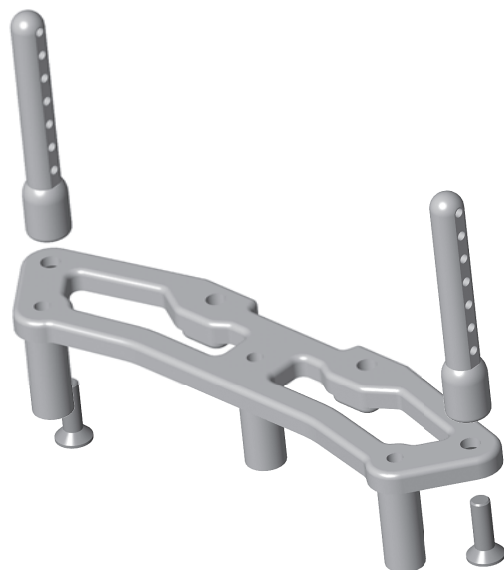
25202, qty 2  
M3x10 fhcs



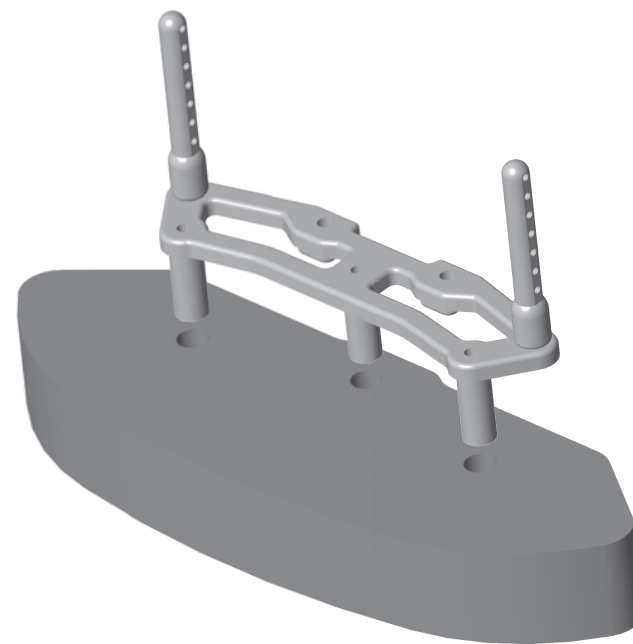
31271, qty 1  
bumper brace



2230, qty 2  
body post



31272, qty 1  
foam bumper





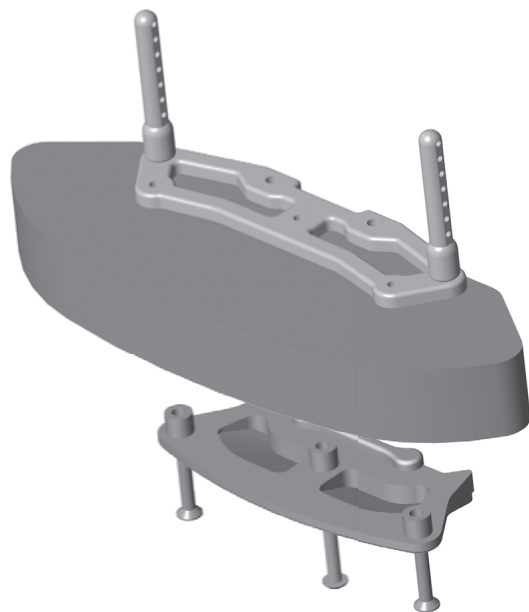
25204, qty 2  
M3x16 fhcs



25187, qty 1  
M3x14 bhcs



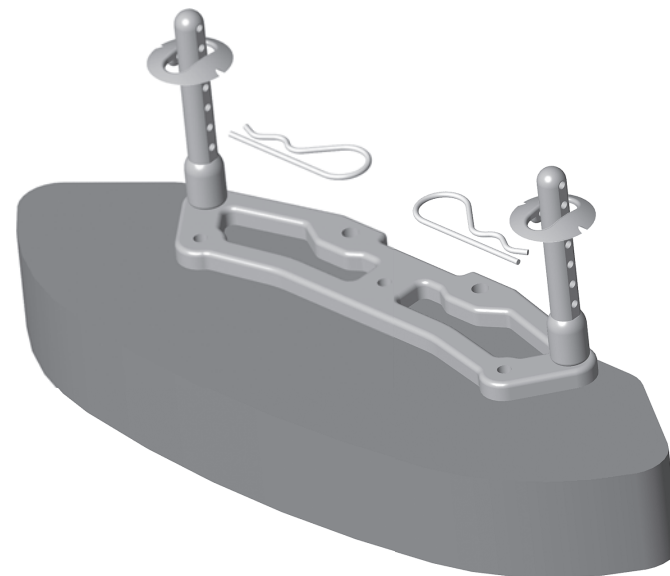
31270, qty 1  
front bumper



3897, qty 2  
swivel mounts



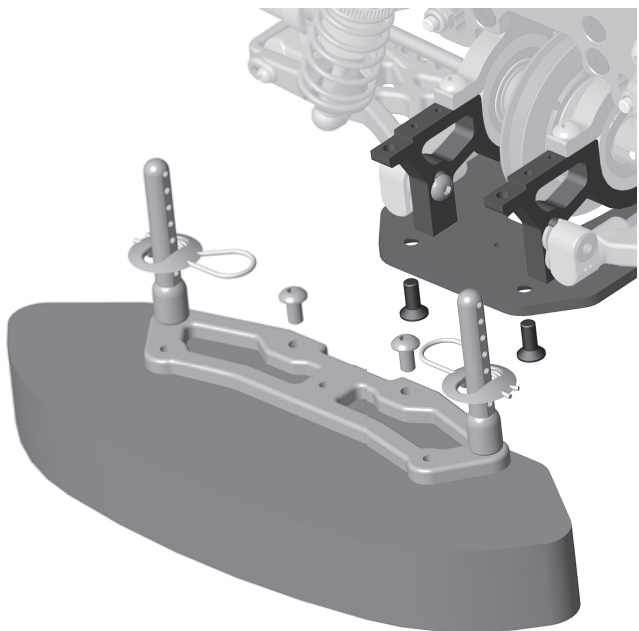
6332, qty 2  
body clips



25201, qty 2  
M3x8 fhcs



31531, qty 2  
M3x6 bhcs



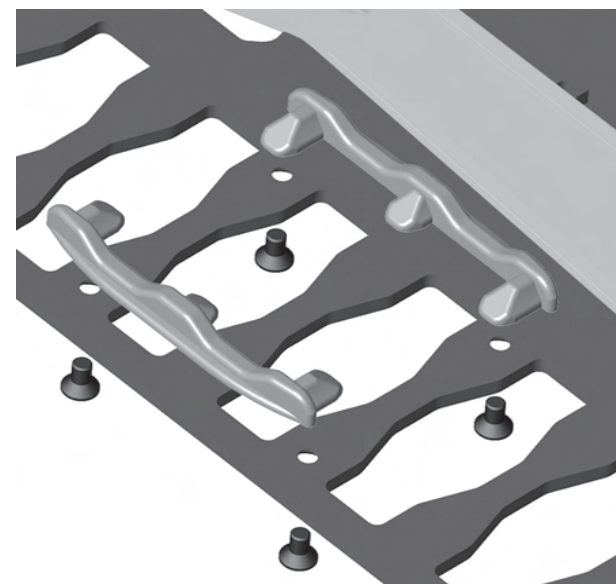
## Battery Strap - Install





31540, qty 4  
M3x5 fhcs

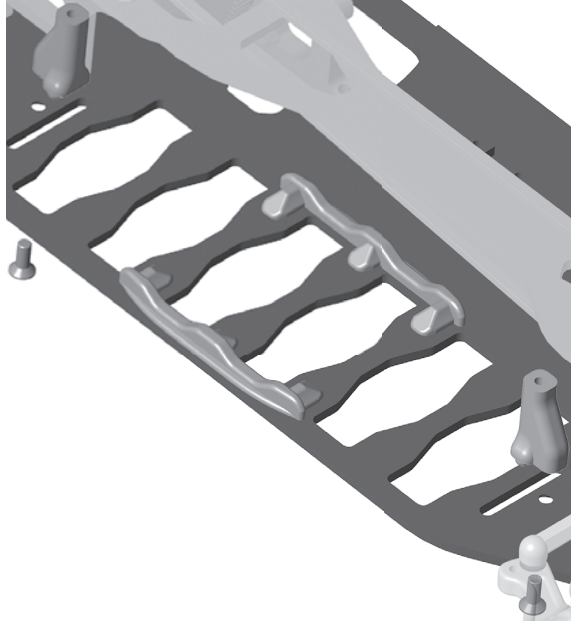



31255, qty 2  
battery support




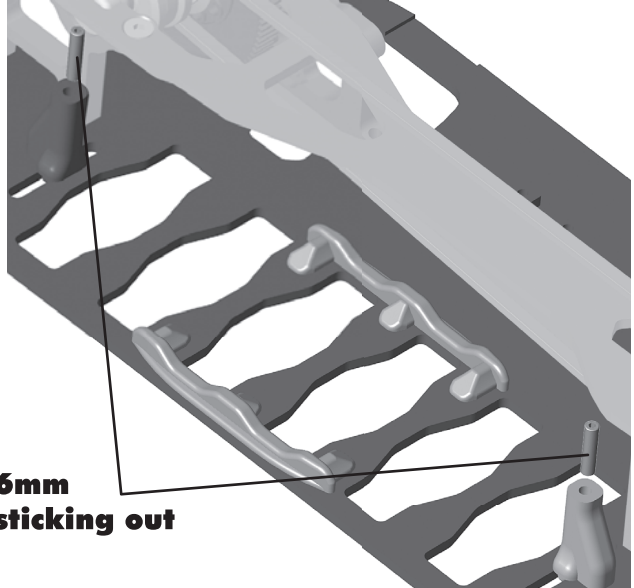
 25201, qty 2  
M3x8 fhcs

 31254, qty 2  
battery strap posts





 1:1


 1787 qty 2  
setscrew

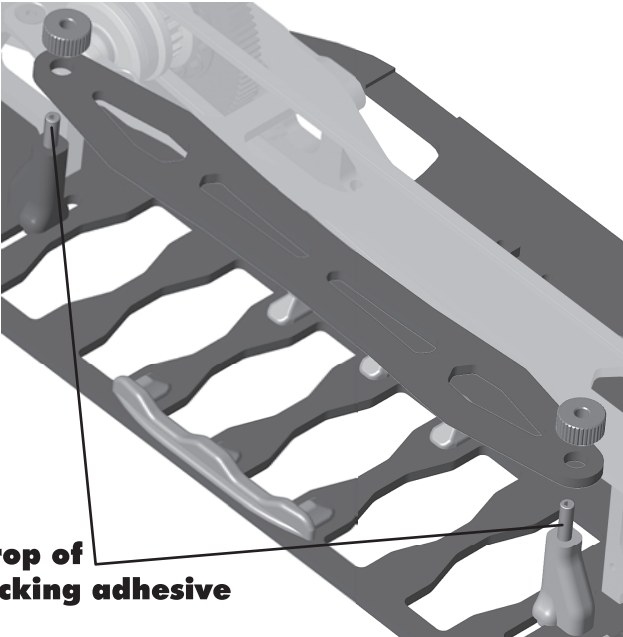


6mm sticking out

 1:1


 1787, qty 2  
thumbscrew


 31256, qty 1  
battery strap



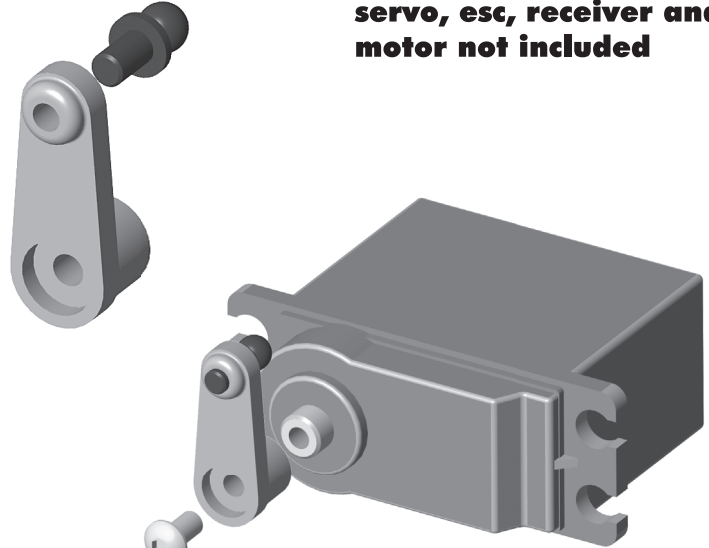
drop of locking adhesive

## Electronics - Install


 31280, qty 1  
ballstud, 5mm

 9180, qty 1  
servo horn

**servo, esc, receiver and motor not included**



use stock servo screw

 1:1



31532, qty 4  
M3x8 bhcs



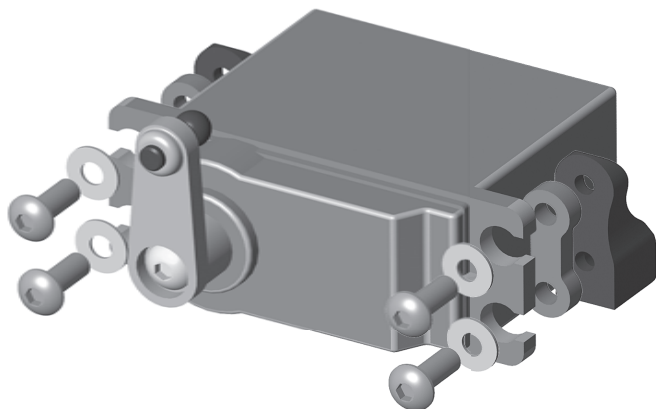
31246, qty 2  
servo mount



7337, qty 4  
gold washer



7336, qty 2  
servo mount  
spacer



1:1 1:1

## Steering Servo Chart\*

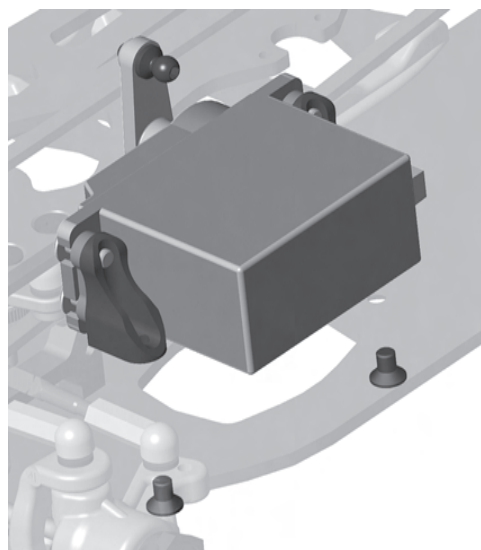
#31111  
Spacer #9180  
Servo Arm

<b>Airtronics</b>	94102	no spacer	A
<b>Airtronics</b>	94738, 94157, 94158, 94257, 94258, 94357, 94358, 94452, 94453, 94751, 94755	thick spacer	A
<b>Hitec</b>	HS-5625MG, HS-5645MG, HS625MG, HS645MG	no spacer	H
<b>Hitec</b>	HS-322HD, HS-325HB, HS-965, HS-985MG, HS-5965, HS-5985MG, HS-425BB, HS-422	thin spacer	H
<b>JR</b>	Z4725, Z4750, Z2750, Z8450, Z8550, NES-4750	no spacer	J
<b>JR</b>	Z250, Z550	thin spacer	J
<b>Futaba</b>	S9204, S9250, S9450, S148	no spacer	F
<b>Futaba</b>	S3003, S9202, S9101	thin spacer	F
<b>Futaba</b>	S9404	thick spacer	F
<b>KO</b>	PS-401, PS-2001, PS-2004, PS-2015, PS-2173, PS-2174, PS-2123, PS-2143, PS-2144	thin spacer	J

\*Not all servo's are listed.



31540, qty 2  
M3x5 fhcs



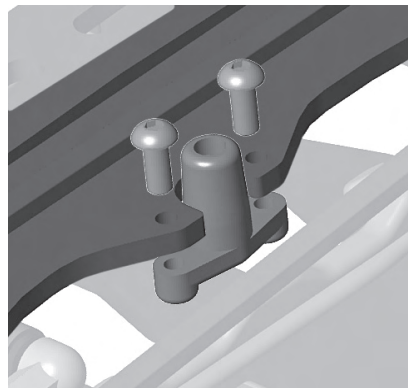
1:1



31520, qty 2  
M2.5x6 bhcs



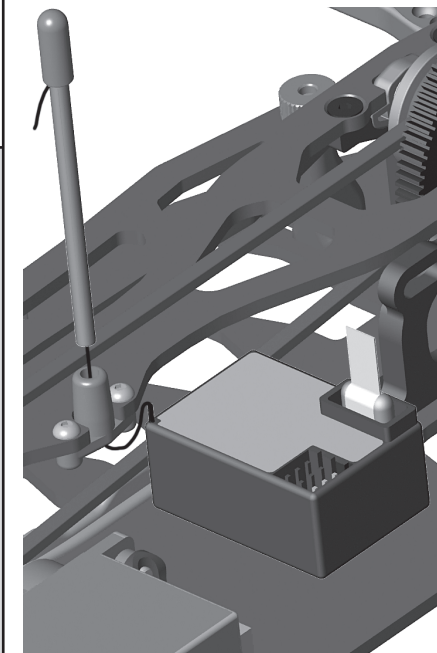
31113, qty 1  
antenna mount



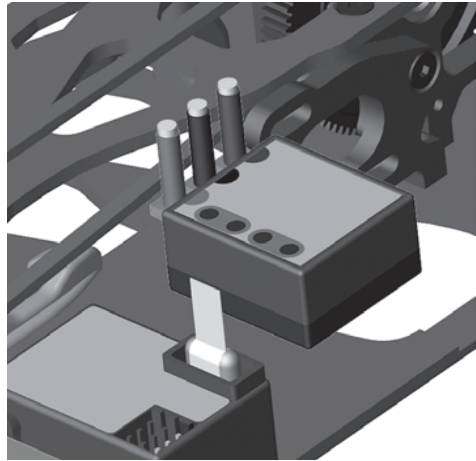
1:1



6338, qty 1  
antenna tube  
and cap

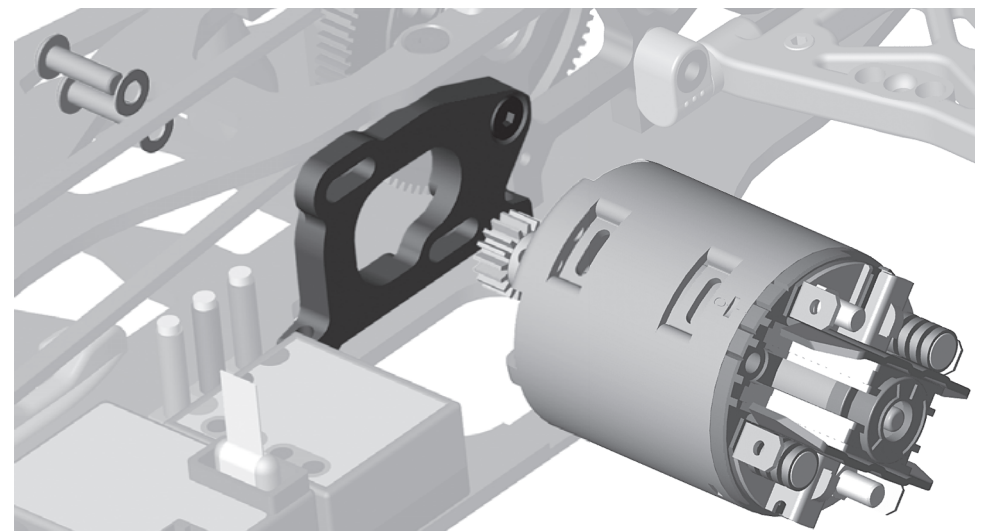


6727, qty 1  
servo tape



31531, qty 2  
M3x6 bhcs

9630, qty 2  
alum. washer



**gearing will depend on the motor and track size. pinion gear and set screw not included.**

1:1 1:1

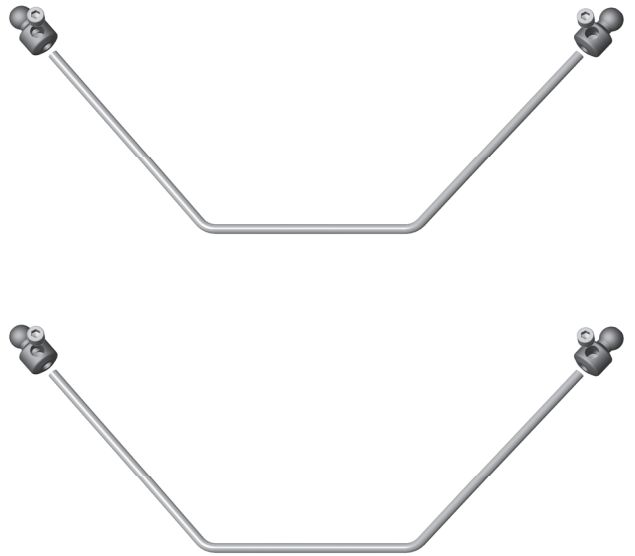
## Anti-Roll Bars - Install

31269, qty 4  
anti-roll bar pivot

31500, qty 4  
M3x2.5 setscrew

31262, qty 1  
anti-roll bar, silver, 1.5mm, front

31261, qty 1  
anti-roll bar, black, 1.25mm, rear



1:1

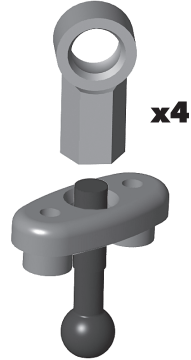
31511, qty 2  
M2x5 shcs

8828, qty 1  
anti-roll bar ball cup

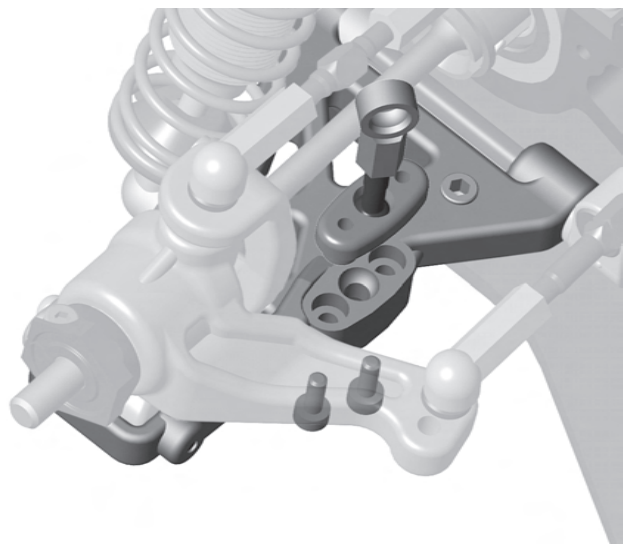
31269, qty 1  
anti-roll bar pivot cap

31058, qty 1  
anti-roll bar pivot ball, blue

**all 4 equal length**




x4




1:1

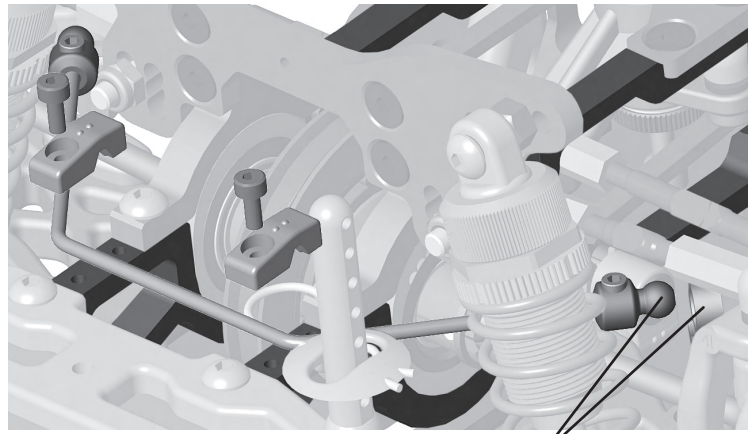





31511, qty 2  
M2x5 shcs

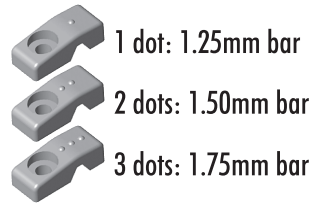


31264, qty 2  
anti-roll bar  
mount, 1.50mm




 **1:1**      **ball into cup**

**Anti-Roll Bar Mount System**




1 dot: 1.25mm bar  
2 dots: 1.50mm bar  
3 dots: 1.75mm bar

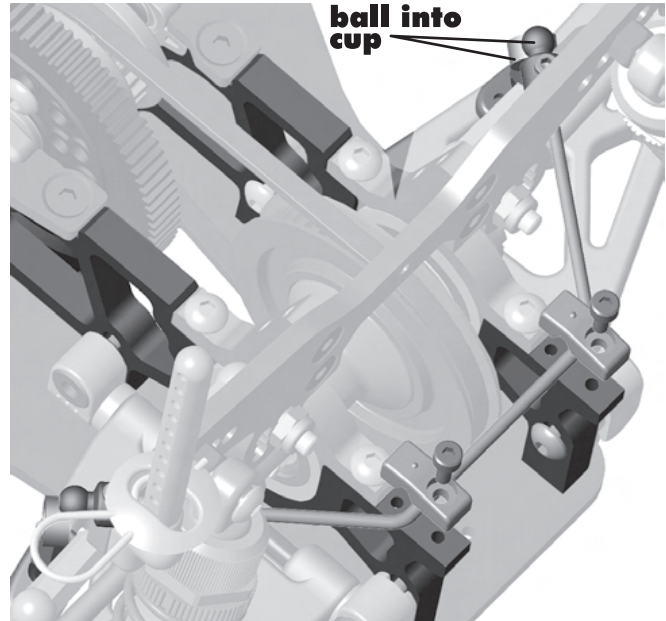
When changing the anti-roll bar, replace the anti-roll bar mount with the correct corresponding mount to ensure a tight fit. This helps prevent unwanted anti-roll bar movement.




31511, qty 2  
M2x5 shcs




31264, qty 2  
anti-roll bar  
mount, 1.25mm

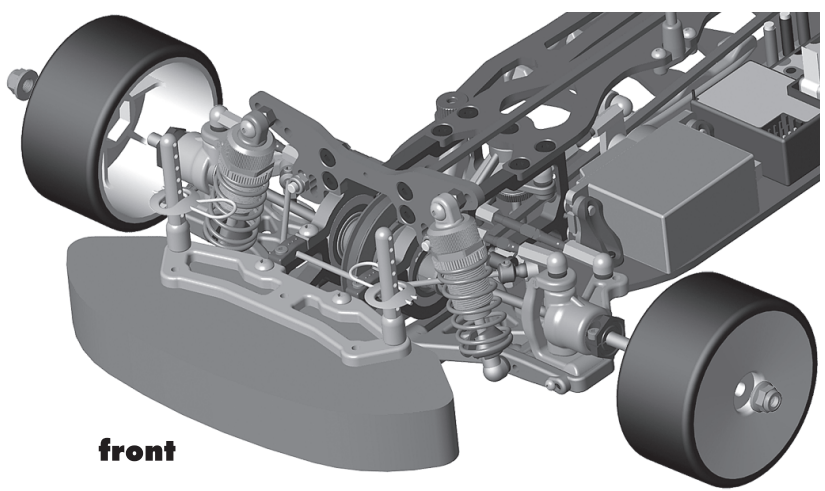


 **1:1**      **ball into cup**

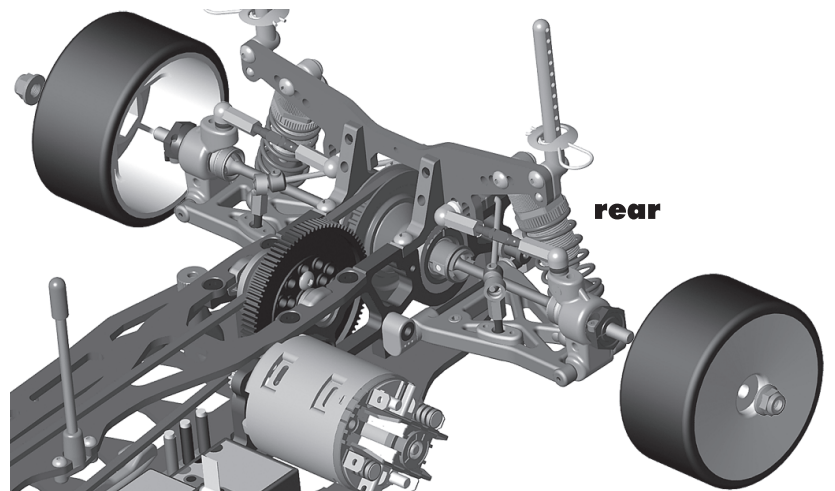
## Wheels/Tires - Install



25391, qty 4  
M4 wheel nut



**front**



**rear**

**wheel & tires not included**

## Ackermann

The inside hole on the steering blocks gives more Ackermann, while the outboard hole yields less Ackermann. Similarly, the rearward holes on the steering bellcrank produce more Ackermann, while the forward holes give less. Increasing Ackermann will smooth out steering and is best when running a one-way or on a high traction surface such as carpet. Reduced Ackermann will typically work best with a front diff or a solid axle. This will give more mid-to-exit steering and more corner speed.

## Arm Mount Position

The TC5s arm mounting system allows for maximum adjustability for both rubber tire and foam tire conditions. Six arm mount positions allow you to run the pins flat, or with angles to produce kick-up, anti-dive, anti-squat, and pro-squat. The arm mounts are indicated one, two, and three with the corresponding number of dots on the outer face, where one is the lowest and three is the highest. Each bulkhead has two positions for the arm mount, the lower (position A) and upper (position B). The following chart shows some examples of arm mount positions and their resulting arm angle shown in degrees:

	Fwd Mount	Rwd Mount	Result	Roll Center	
<b>Front</b>	1B	3A	1° Kick-Up	High ↑	
	3A	1B	1° Anti-Dive		
	1B	2A	2° Kick-Up		
	2A	1B	2° Anti-Dive		
	3A	3A	Flat		
	3A	2A	1° Kick-Up		
		2A	3A	1° Anti-Dive	Std. ↕
		3A	1A	2° Kick-Up	
		2A	2A	Flat	
		2A	1A	1° Kick-Up	
		1A	2A	1° Anti-Dive	
		1A	1A	Flat	
<b>Rear</b>	2B	1B	1° Anti-Squat	High ↑	
	1B	2B	1° Pro-Squat		
	2B	3A	2° Anti-Squat		
	3A	2B	2° Pro-Squat		
	1B	1B	Flat		
	1B	3A	1° Anti-Squat		
		3A	1B	1° Pro-Squat	Std. ↕
		1B	2A	2° Anti-Squat	
		2A	1B	2° Pro-Squat	
		3A	3A	Flat	
		3A	2A	1° Anti-Squat	
		2A	3A	1° Pro-Squat	
	2A	2A	Flat	Low ↓	

	Fwd Mount	Rwd Mount	Result	Roll Center	
<b>Rear</b>	2B	1B	1° Anti-Squat	High ↑	
	1B	2B	1° Pro-Squat		
	2B	3A	2° Anti-Squat		
	3A	2B	2° Pro-Squat		
	1B	1B	Flat		
	1B	3A	1° Anti-Squat		
		3A	1B	1° Pro-Squat	Std. ↕
		1B	2A	2° Anti-Squat	
		2A	1B	2° Pro-Squat	
		3A	3A	Flat	
		3A	2A	1° Anti-Squat	
		2A	3A	1° Pro-Squat	
	2A	2A	Flat	Low ↓	

## Ride Height

The standard starting point for ride height is 4.5mm (keep in mind that your local track may have minimum ride height requirements). You can slightly raise the rear relative to the front to give the car more steering. Raise the car slightly for tracks with large bumps.

## Anti-Dive (front)

Rear mount higher than front mount, negative result. Adding anti-dive reduces weight transfer to the front on deceleration entering corners. It also reduces caster at the wheel.

## Anti-Squat (rear)

Front mount higher than rear mount, positive result. Increasing anti-squat will make the rear suspension stiffer. It tends to give the car more entry steering and reduce rearward weight transfer on power.

## Pro-Squat (rear)

Rear mount higher than front mount, negative result. Running Pro-Squat will increase rearward weight transfer on power.

## Kick-Up (front)

Front mount higher than rear mount, positive result. Increasing kick-up will give more entry steering, as well as increasing caster at the wheel.

## Droop

The standard settings of 5mm front and 4mm rear will work best in most cases. Reducing the droop by 0.5 to 1mm both front and rear will increase responsiveness. On carpet, you should run more droop to account for smaller tire diameters.

## Caster

Caster describes the angle of the kingpin from vertical while looking from the side of the car. Positive caster means the top of the kingpin leans rearward. Negative caster means the kingpin is leaning towards the front of the car. Since caster is measured at the wheel, it is affected by running any inclination in your inboard arm mount. Kick-up adds (+) caster, and anti-dive adds (-) caster.

When figuring out your caster at the wheel, add the number of degrees of kick-up or anti-dive and add it to the degree caster blocks you have on the car.

Typically for most racing surfaces, 4 degrees caster is the normal starting point for the Team. From there, increase caster to reduce mid to exit steering and make the front end less responsive. Conversely, decreased caster gives a more responsive feel and more exit steering.

## Motor Gearing

Motor gearing is a starting recommendation only. You may need to adjust your gearing according to your track size. Internal Gear Ratio is 2.0.

Spur (48 Pitch)		84	85	86	87	88	89	90
Pinion (48 Pitch)	17	9.88	10.00	10.12	10.24	10.35	10.47	10.59
	18	9.33	9.44	9.56	9.67	9.78	9.89	10.00
	19	8.84	8.95	9.05	9.16	9.26	9.37	9.47
	20	8.40	8.50	8.60	8.70	8.80	8.90	9.00
	21	8.00	8.10	8.19	8.29	8.38	8.48	8.57
	22	7.64	7.73	7.82	7.91	8.00	8.09	8.18
	23	7.30	7.39	7.48	7.57	7.65	7.74	7.83
	24	7.00	7.08	7.17	7.25	7.33	7.42	7.50
	25	6.72	6.80	6.88	6.96	7.04	7.12	7.20
	26	6.46	6.54	6.62	6.69	6.77	6.85	6.92
	27	6.22	6.30	6.37	6.44	6.52	6.59	6.67
	28	6.00	6.07	6.14	6.21	6.29	6.36	6.43
	29	5.79	5.86	5.93	6.00	6.07	6.14	6.21
30	5.60	5.67	5.73	5.80	5.87	5.93	6.00	
31	5.42	5.48	5.55	5.61	5.68	5.74	5.81	
32	5.25	5.31	5.38	5.44	5.50	5.56	5.63	

## Tips for Beginners

Before making any changes to the standard setup, make sure you can get around the track without crashing. Changes to your car 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 car. 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 car, fill in the setup sheet thoroughly and file it away. Use this as a guide for future track days or conditions.

For more racing tips and setup information, go to:  
[www.RC10.com](http://www.RC10.com) • [www.TeamAssociated.com](http://www.TeamAssociated.com) • [www.CompetitionX.com](http://www.CompetitionX.com)

## Ballstud Height/Camber Location

You can lower the front or rear roll center by lowering the arm mounts, or raising the inner ballstud. A lower roll center will put more weight on the tires during cornering, and increases traction to that end of the car. Shortening the link (typically used on high grip and carpet) will raise the roll center and decrease grip. A similar effect can come from lowering the ballstud.

## Battery Placement (4 or 5 cell packs)

For most cases, run the battery in the standard forward position. Typically this will be the most stable and easiest to drive. Try moving the battery back if you encounter a low traction surface.

## Wheelbase

Lengthening the front will reduce steering, shortening the front will increase steering. Shortening the rear will increase rear grip, lengthening the rear will decrease rear traction.

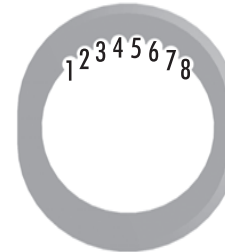
## Rear Toe-In

Decreasing toe-in will decrease rear traction and increase corner speed. Use numbered toe shims for adjustment.

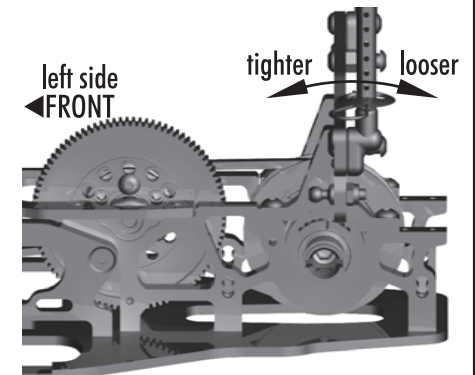
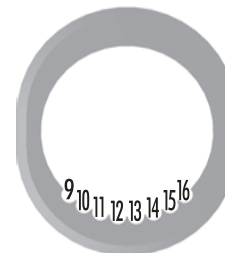
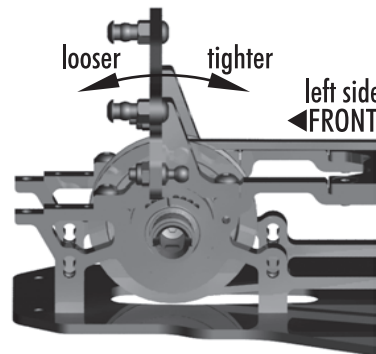
## Belt Tension

When altering the differential height, you will need to adjust the tension of the belt. Follow the chart below.

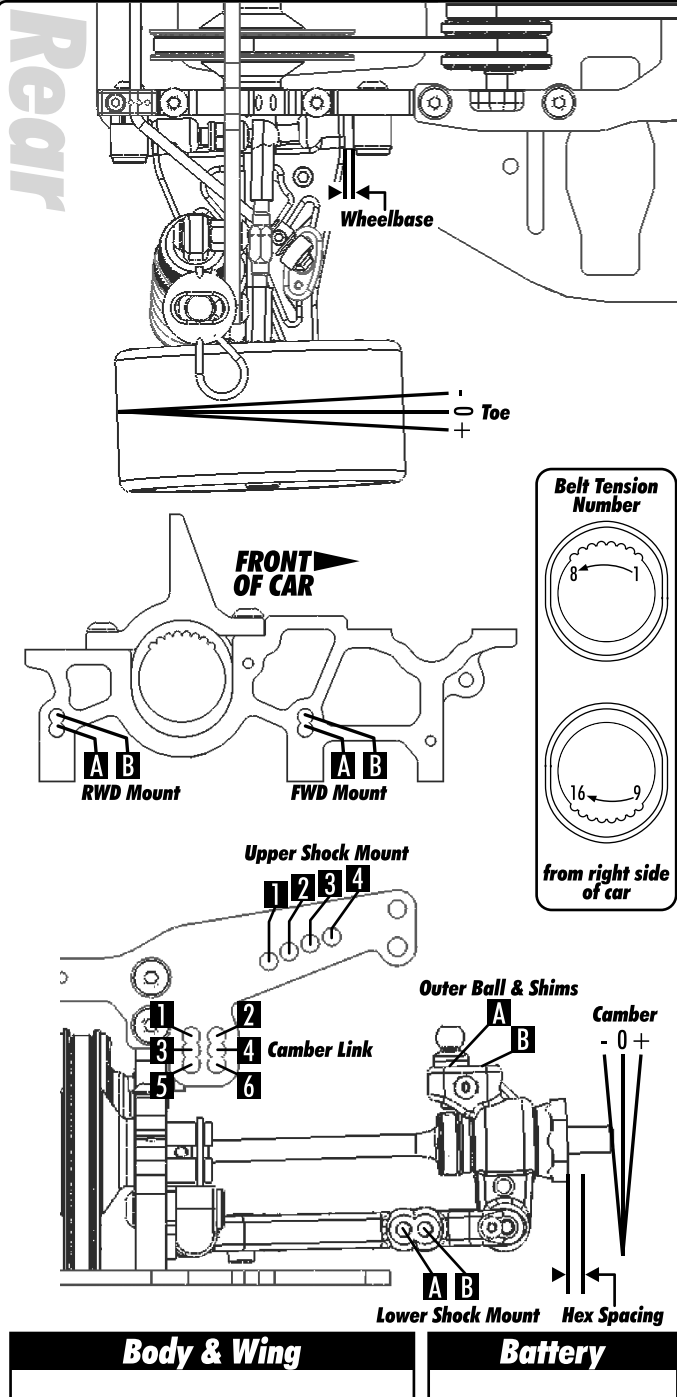
Front	Height	Pos.
	Mid-Low	2
	Mid-High	9
	Low	1
High	10	



Rear	Height	Pos.
	Mid-Low	6
	Mid-High	13
	Low	8
High	11	



**NOTE: Charts show left side cam positions from the left side of the car. Match right side cam position to left side cam position.**



Rear	Alignment	Front
	Ride Height	
	Camber	
N/A	Caster	
	Rear Hub Toe	N/A
	Toe	
	Hex Spacing	
N/A	Wheelbase	
N/A	Steering Link	
N/A	Bumpsteer	
Notes:		
Differentials		
	Type	
	Setting	
	Belt Tension Number	
	Cam Holder	
Notes:		
Tires		
	Tire	
	Tire Diameter	
	Insert & Wheel	
	Additive & Amount	
Notes:		
Shocks		
	Oil	
	Piston	
	Rebound	
	Spring	
Notes:		
Chassis		
	Chassis	
	Top Plate	
Notes:		
Suspension Geometry		
	Shock Position	
	Camber Link Position	
	Outer Ball & Shims	
	FWD Arm Mount	
	FWD Mount Shims	
	RWD Arm Mount	
	RWD Mount Shims	
	Drop	
	Anti-Roll Bar	
Notes:		

