

TC4 ^{FACTORY} Team

Instruction Manual for the Factory Team TC4



Thank you for selecting this Team Associated model.

Team Associated's first race with the Factory Team TC4 resulted in a first place finish in the prestigious Invitational Touring Car class at the 2005 Reedy International Race of Champions. Craig Drescher drove his Factory Team TC4 to victory in one of the most competitive touring car fields of all time.

Team Associated wants you to enjoy the process of building, driving and maintaining your new model. If you come across 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: 714.850.9342
Fax: 714.850.1744

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



The Manual

Examine each step carefully before building. Special notes for each step will be marked with a ▼.

The 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.

Supplement Sheets

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

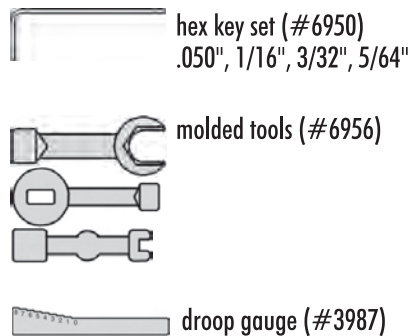
Additional Support

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

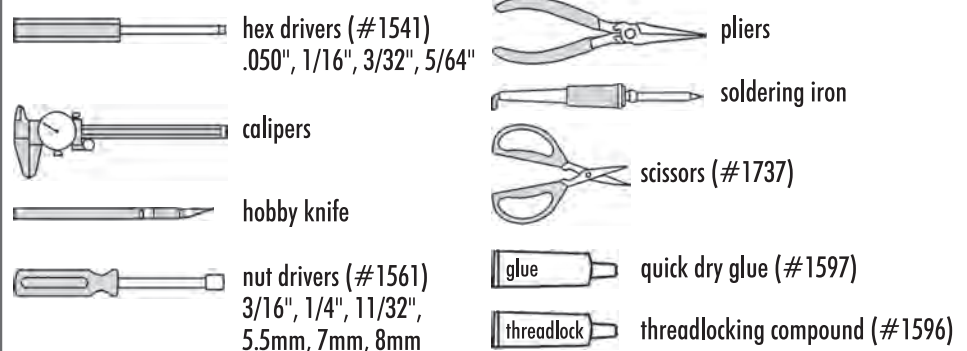


www.RC10.com
www.TeamAssociated.com
www.CompetitionX.com

kit supplied tools

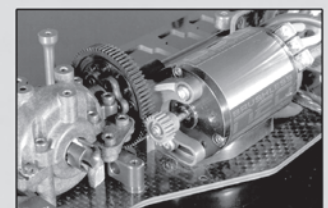
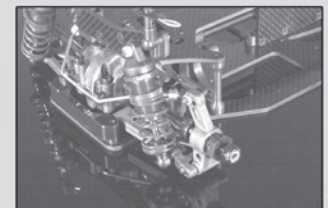
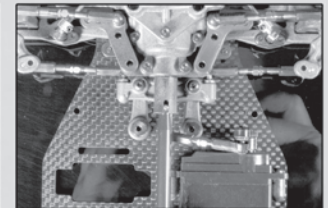
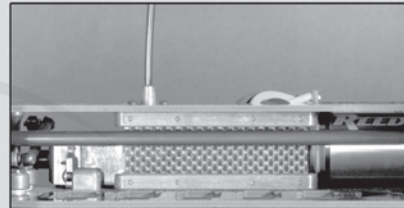
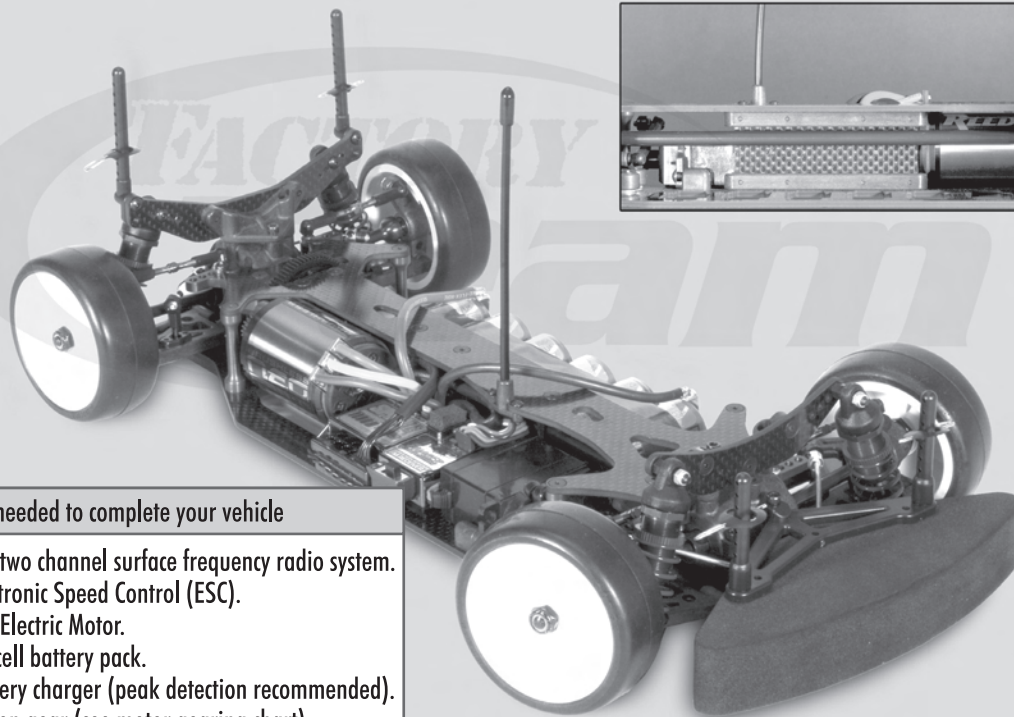


recommended tools for assembly



items needed to complete your vehicle

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



Step 1

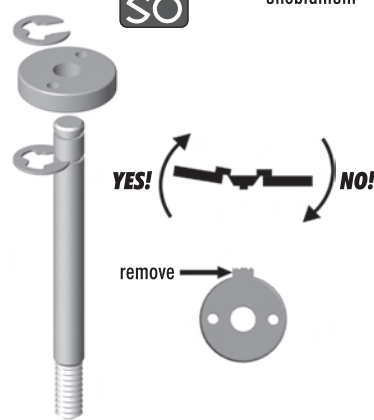
- 3963, qty 1 threaded shock body, blue
- 6469, qty 1 shock cap o-ring



place o-ring over shock body

Step 2

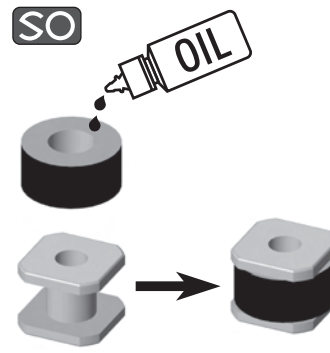
- 6299, qty 2 small e-dip
- 6465, qty 1 shock piston #2
- 8845, qty 1 shock shaft, .35", unobtainium



remove

Step 3

- 5423, qty 1 40wt silicone oil
- 8456, qty 1 VC bobbin
- 8456, qty 1 VC foam



saturate VC foam

Step 4

- 5407, qty 2 red o-ring



Step 5

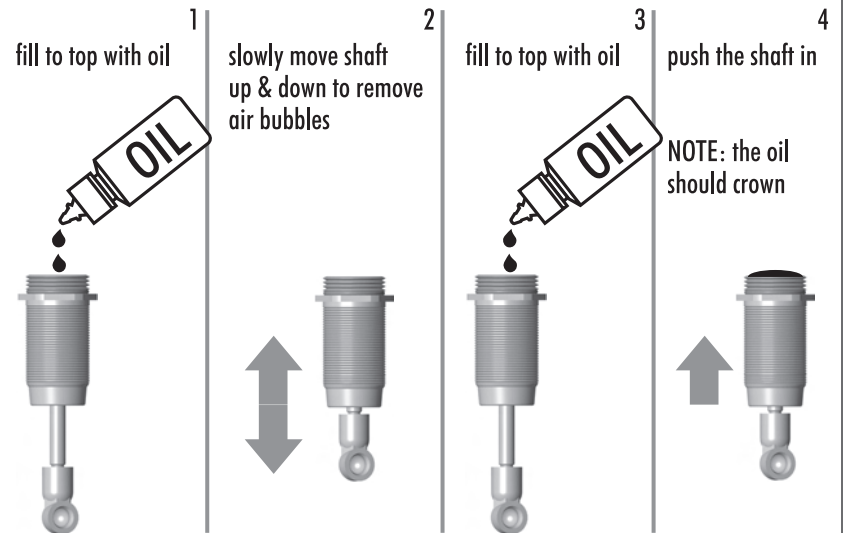


Step 6



repeat steps 1-6 for 4 shocks

Step 7



1 fill to top with oil

2 slowly move shaft up & down to remove air bubbles

3 fill to top with oil

4 push the shaft in

NOTE: the oil should crown

5



retain oil as you screw the cap on

6428, qty 1 shock cap

fill to bottom of threads



6 move shaft up & down a few times, then push it all the way in. the shaft should push itself out slightly.

6



if you cannot push the shaft in, bleed out a small amount of oil. repeat step 6.

7

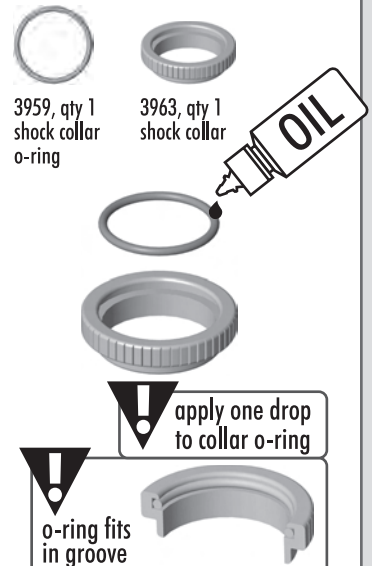


if the shaft does not push out, repeat steps 5 & 6 again.

repeat step 7 for 4 shocks

8

Step 8



- 3959, qty 1 shock collar o-ring
- 3963, qty 1 shock collar

apply one drop to collar o-ring

o-ring fits in groove

Step 9

3943, qty 1 shock spring, blue, 17lbs

6475, qty 1 spring cup

SO



front shocks

Step 10

3943, qty 1 shock spring, blue, 17lbs

6475, qty 1 spring cup

SO



rear shocks

Bag B - Differentials - Plastic

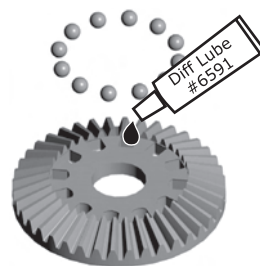
Step 1

Plastic



3914, qty 1 differential ring gear

6581, qty 12 3/32" diff balls



assemble 2 differentials

Step 2

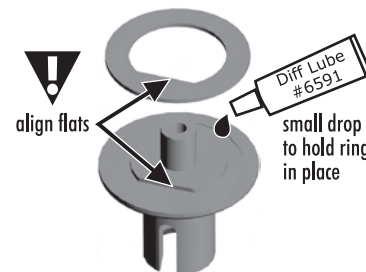
Plastic



3906, qty 1 diff drive ring



3908, qty 1 molded outdrive, short



align flats

Diff Lube #6591
small drop to hold ring in place

Step 3

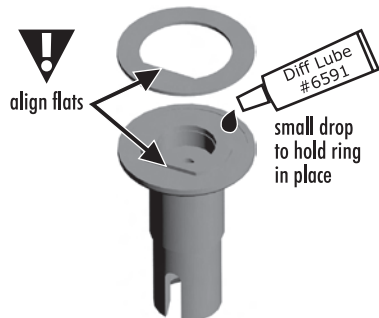
Plastic



3906, qty 1 diff drive ring



3908, qty 1 molded outdrive, long



align flats

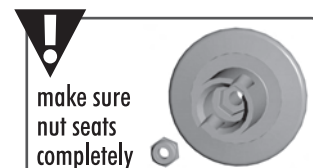
Diff Lube #6591
small drop to hold ring in place

Step 4

Plastic



3904, qty 1 2-56 locknut



make sure nut seats completely

Step 5

Plastic



6573, qty 2 thrust washer



6573, qty 1 diff bolt

6574, qty 6 5/64" thrust balls

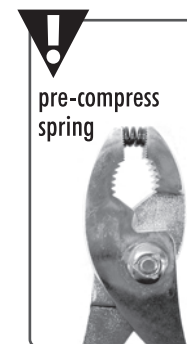
supplied 5/64" wrench

Step 6

Plastic



6582, qty 1 diff spring



pre-compress spring

Step 7

Plastic



Step 8

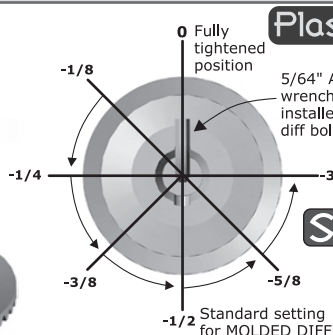
Plastic

3916, qty 2 3/16" x 5/16" diff bearings



Step 9

Plastic



Do not over-tighten diff bolt!
When fully compressed, set at 1/2 turn out (see diagram)

Step 10

Plastic

3911, qty 2 outdrive shim



6903, qty 2 3/8 x 5/8" PTFE sealed bearing



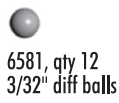
Bag B - Differentials - Steel

Step 1

Steel



3914, qty 1 differential ring gear



6581, qty 12 3/32" diff balls



Diff Lube #6591

! assemble 2 differentials

Step 2

Steel



6579, qty 1 diff drive ring



31062, qty 1 lightened steel outride, short



Diff Lube #6591

small drop to hold ring in place

Step 3

Steel



6579, qty 1 diff drive ring



31062, qty 1 lightened steel outride, long



Diff Lube #6591

small drop to hold ring in place

Step 4

Steel



6573, qty 2 thrust washer

6574, qty 6 5/64" thrust balls

6575, qty 1 diff bolt

supplied 5/64" wrench

Step 5

Steel

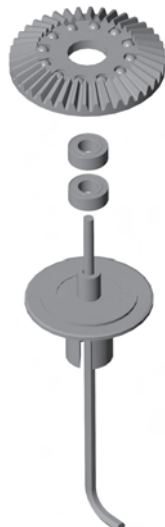


Step 6

Steel



3916, qty 2 3/16" x 5/16" diff bearings

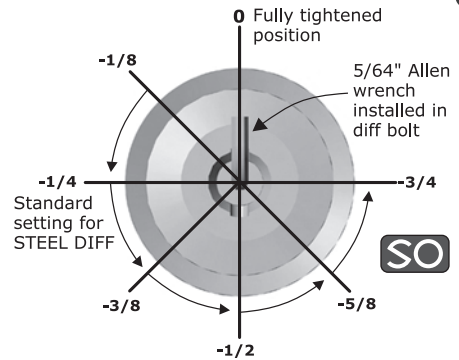


Step 7

Steel

6575, qty 1 t-nut

6582, qty 1 diff spring



! pre-compress spring

! When fully compressed, set at 1/4 turn out (see diagram)

Step 8

Steel



3911, qty 2 outdrive shim



6903, qty 2 3/8 x 5/8" PTFE sealed bearing



Step 1

3981, qty 1 ballstud, .200" short black

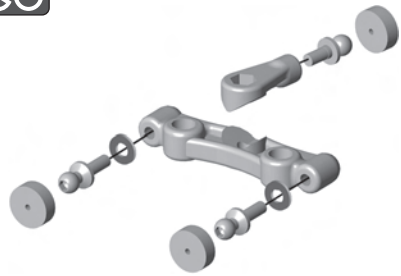
6272, qty 3 dust cover, foam

6277, qty 2 ballstud, .300" long silver

9630, qty 0 ballstud washer

31003, qty 1 steering rack arm

31003, qty 1 steering rack



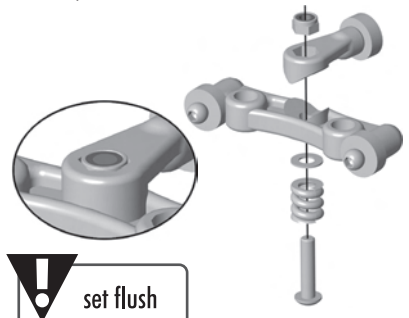
Step 2

4449, qty 1 4-40 locknut

6587, qty 1 servo saver spring

6918, qty 1 4-40 x 1/2" bhcs

31003, qty 1 washer



! set flush

Bag C - Steering



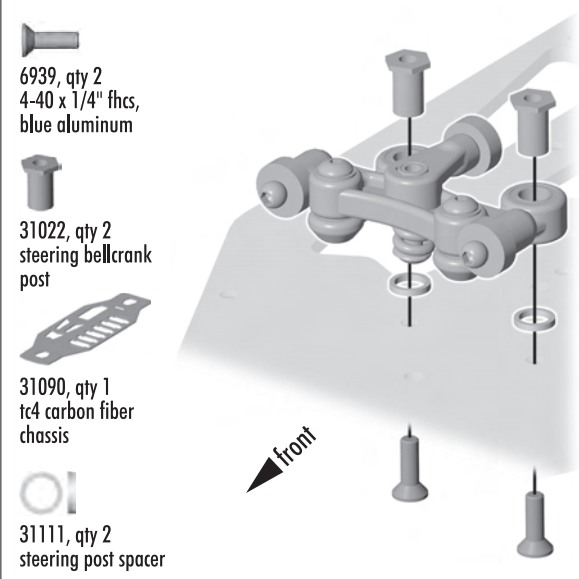
Step 3



Step 4

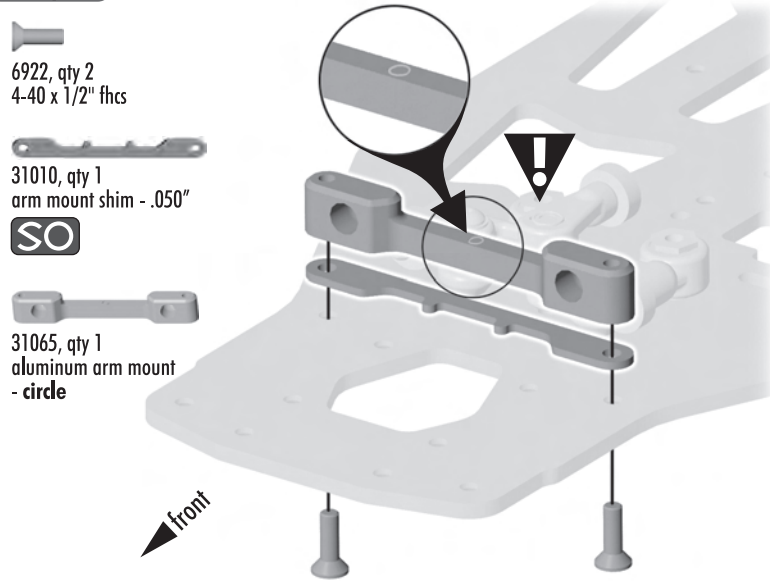


Step 5

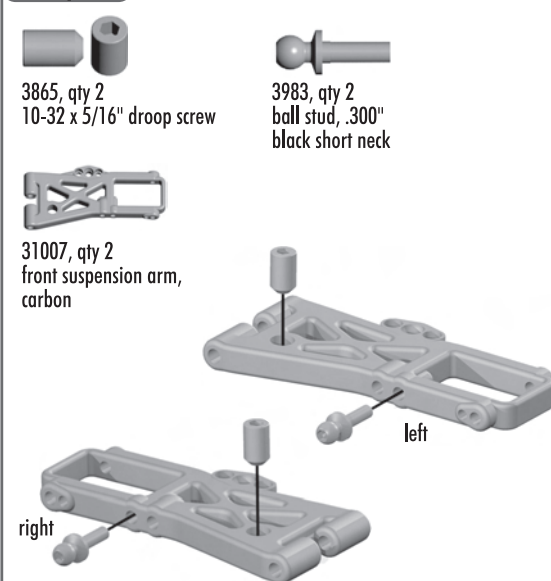


Step 1

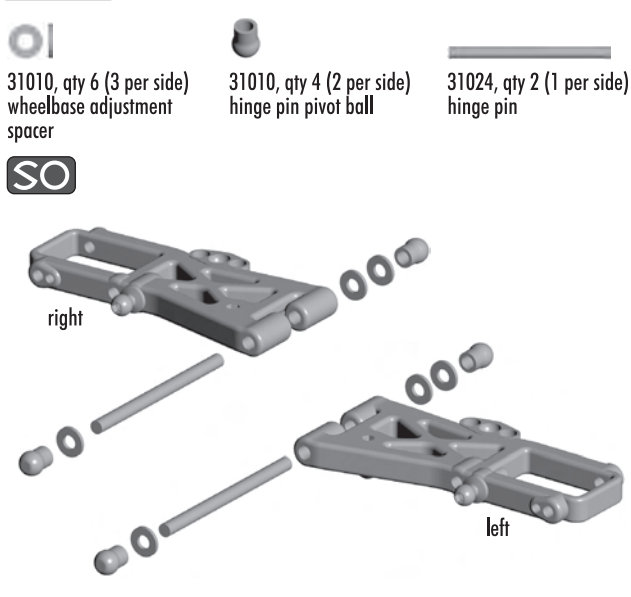
Bag D - Suspension



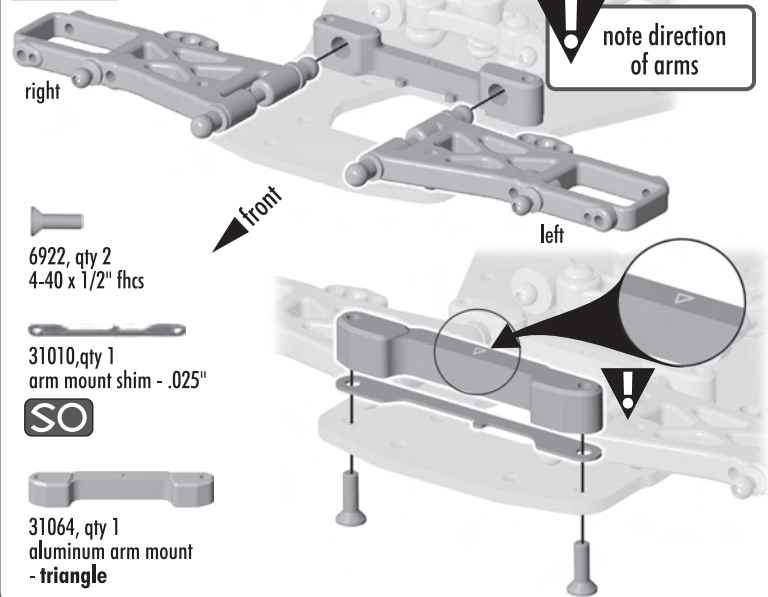
Step 2



Step 3



Step 4



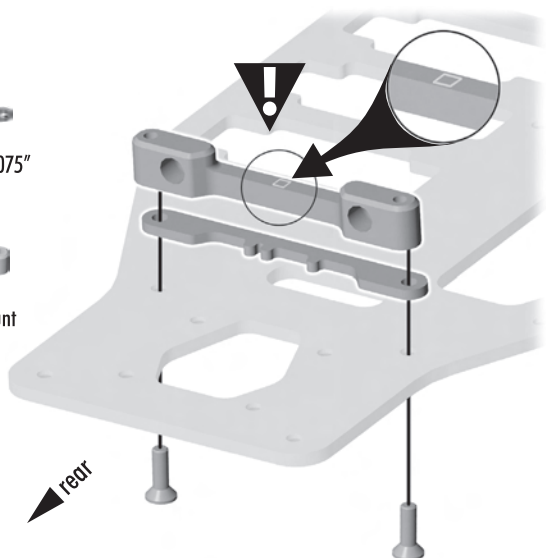
Step 5

6922, qty 2
4-40 x 1/2" fhcs

31010, qty 1
arm mount shim - .075"

SO

31066, qty 1
aluminum arm mount
- square

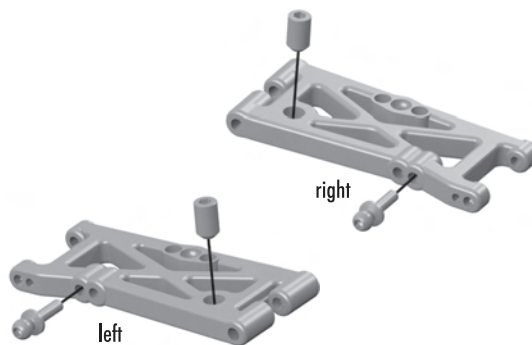


Step 6

3865, qty 2
10-32 x 5/16"
droop screw

3983, qty 2
ball stud, .300"
black short neck

31009, qty 2
rear suspension arm,
carbon



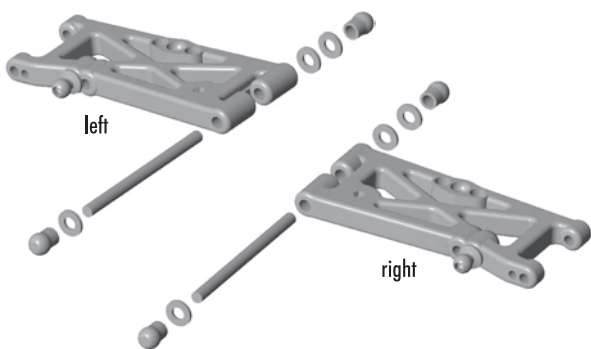
Step 7

31010, qty 6 (3 per side)
wheelbase adjustment
spacer

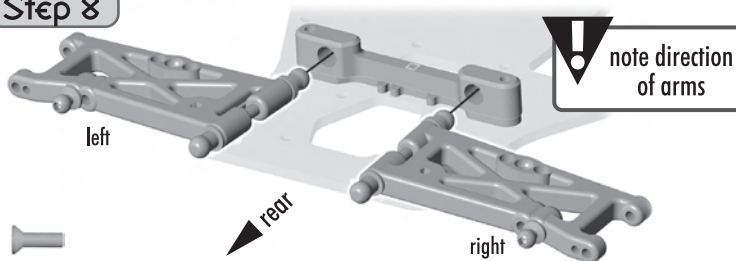
31010, qty 4 (2 per side)
hinge pin pivot ball

31024, qty 2 (1 per side)
hinge pin

SO



Step 8



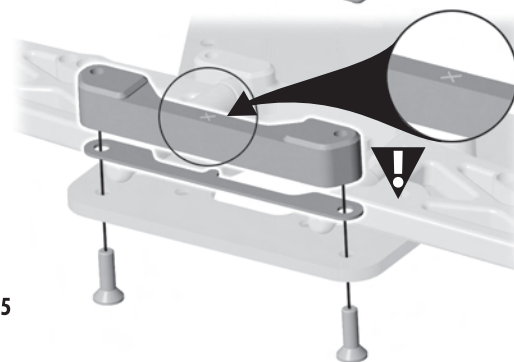
6922, qty 2
4-40 x 1/2" fhcs

31010, qty 1
arm mount shim - .025"

SO

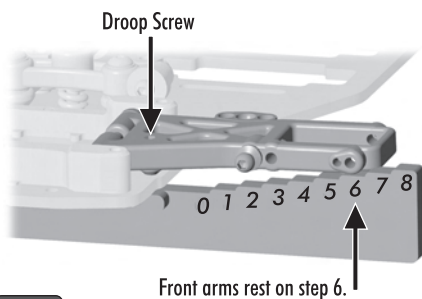
31068, qty 1
aluminum arm mount - X - 2.5

SO



Setting Front Droop

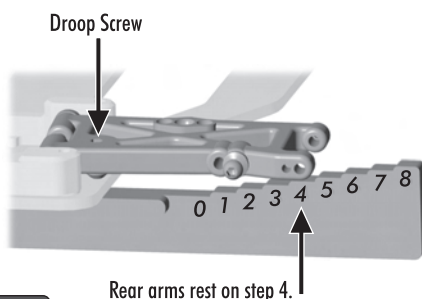
Adjust Droop ↑ Screw out,
smaller number,
more Droop
↓ Screw in,
larger number,
less Droop



SO

Setting Rear Droop

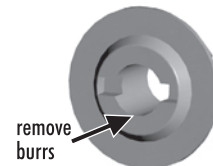
Adjust Droop ↑ Screw out,
smaller number,
more Droop
↓ Screw in,
larger number,
less Droop



SO

Step 1

3914, qty 2
drive pinion



! debur 2 gears

Bag E - Transmission



Step 2



3911, qty 2
input shaft shim



3915, qty 1
front input shaft



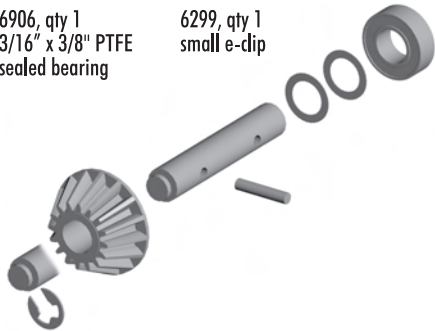
3919, qty 1
dowel pin



6906, qty 1
3/16" x 3/8" PTFE
sealed bearing



6299, qty 1
small e-clip



Step 3



3911, qty 1
input shaft shim



3919, qty 1
dowel pin



6906, qty 1
3/16" x 3/8" PTFE
sealed bearing



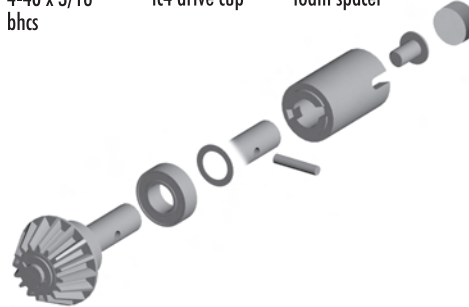
6920, qty 1
4-40 x 3/16"
bhcs



31019, qty 1
tc4 drive cup



31019, qty 1
foam spacer



Step 4



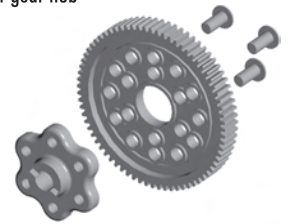
3922, qty 1
72t spur gear



6288, qty 3
4-40 x 1/4" bhcs



31019, qty 1
spur gear hub



Step 5



3915, qty 1
rear input shaft



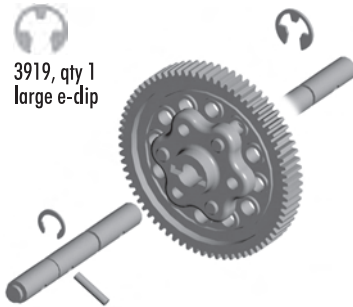
3919, qty 1
c-clip



3919, qty 1
dowel pin



3919, qty 1
large e-dip



Step 6



3911, qty 3
input shaft
shim - silver



3919, qty 1
dowel pin



6906, qty 1
3/16" x 3/8" PTFE
sealed bearing



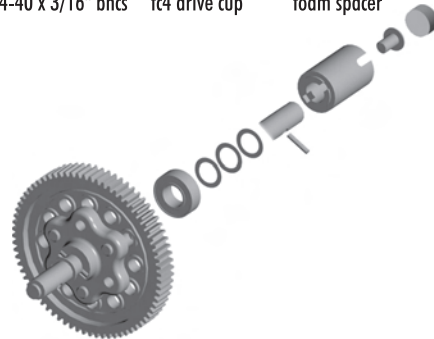
6920, qty 1
4-40 x 3/16"
bhcs



31019, qty 1
tc4 drive cup



31019, qty 1
foam spacer



Step 7



3911, qty 2
input shaft
shim - black



3914, qty 1
drive pinion



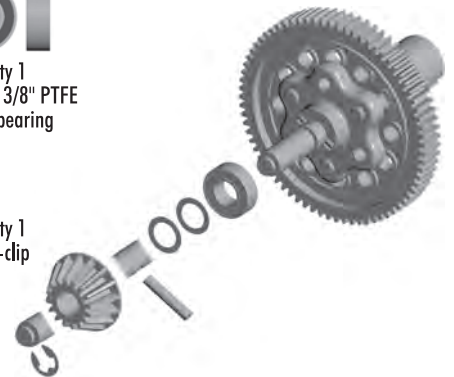
3919, qty 1
dowel pin



6906, qty 1
3/16" x 3/8" PTFE
sealed bearing



6299, qty 1
small e-clip



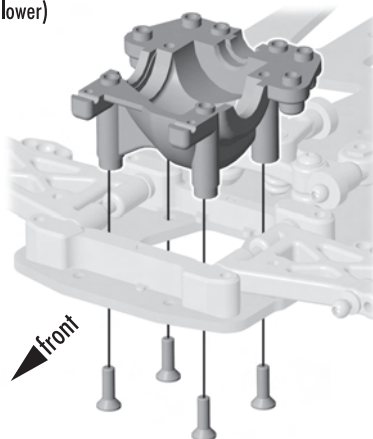
Step 8



2368, qty 1
transmission case
(lower)



6934, qty 4
4-40 x 3/8" fhcs,
blue aluminum



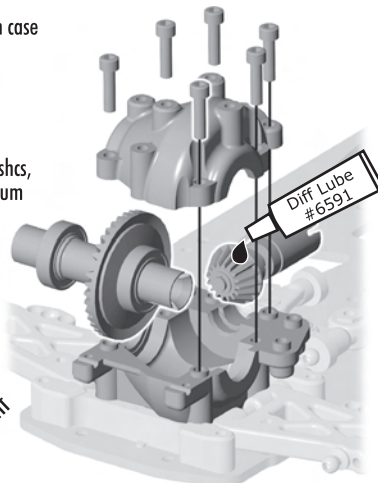
Step 9



2368, qty 1
transmission case
(upper)



6860, qty 6
4-40 x 3/8" fhcs,
blue aluminum



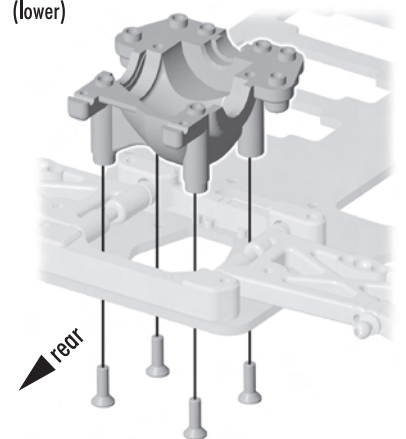
Step 10



2368, qty 1
transmission case
(lower)



6934, qty 4
4-40 x 3/8" fhcs,
blue aluminum



Step 12

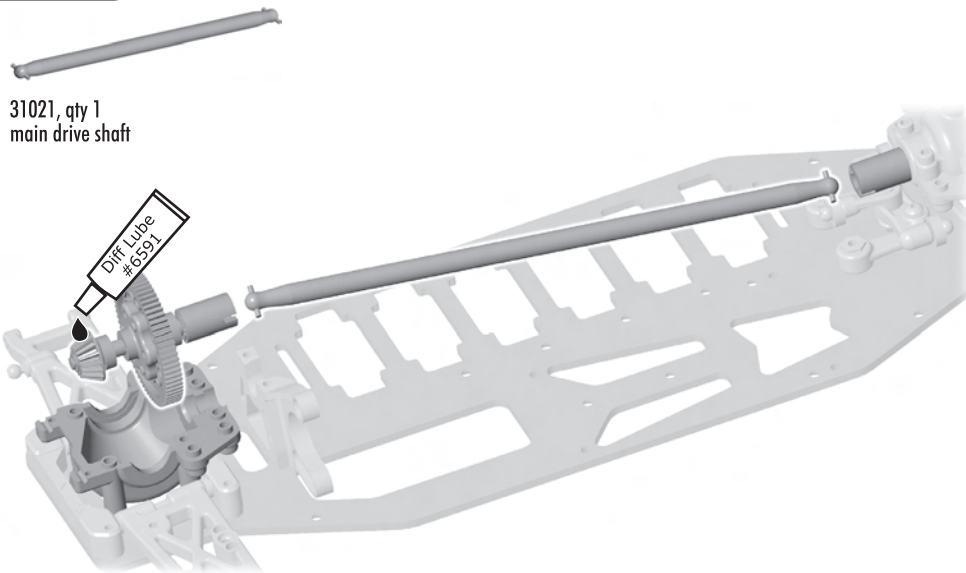
6291, qty 2
4-40 x 1/4" fhcs

31105, qty 1
center bulkhead



Step 13

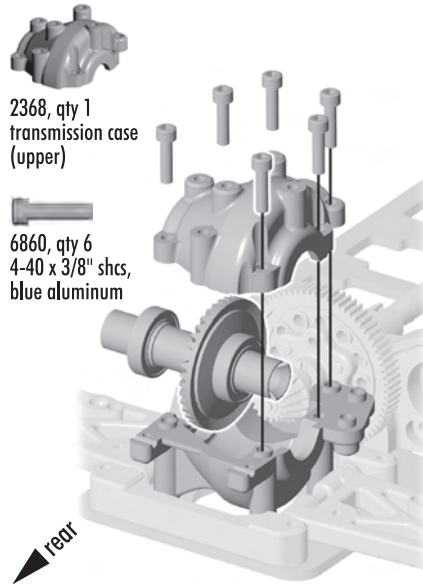
31021, qty 1
main drive shaft



Step 15

2368, qty 1
transmission case (upper)

6860, qty 6
4-40 x 3/8" shcs,
blue aluminum



Step 1

3886, qty 1
CVD axle

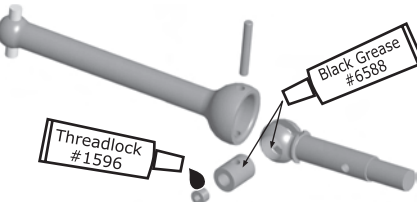
7381, qty 1
CVD set screw

7381, qty 1
CVD coupling

7381, qty 1
CVD cross pin

31034, qty 1
aluminum CVD bone

Bag F - CVD's



! assemble
4 CVD's

Step 2

3965, qty 1
bearing spacer

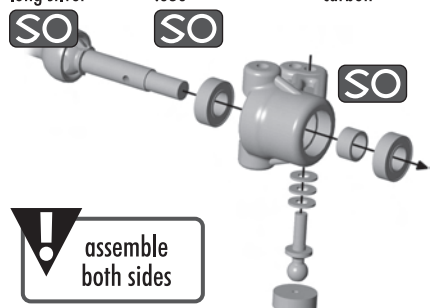
6906, qty 2
3/16" x 3/8" PTFE
sealed bearing

6272, qty 1
dust cover, foam

6277, qty 1
ballstud, .300"
long silver

9630, qty 3
ball stud washer
.030"

31005, qty 1
steering block,
carbon



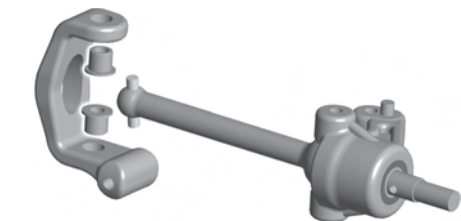
! assemble
both sides

Step 3

3874, qty 2
block carrier
bushing

31017, qty 1
4deg. caster block

SO



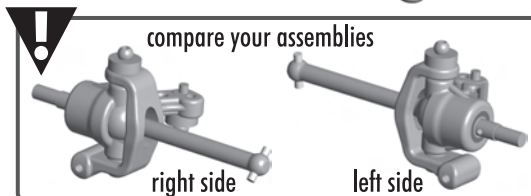
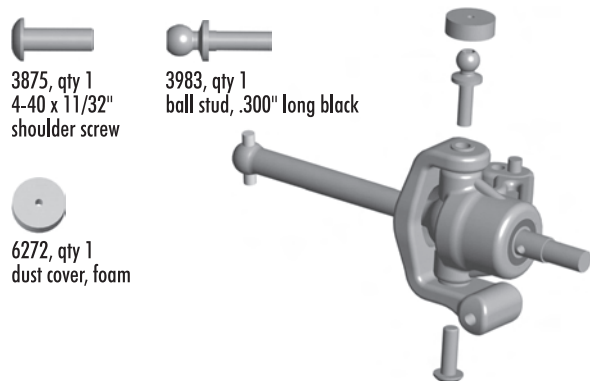
! assemble
both sides

Step 4

3875, qty 1
4-40 x 11/32"
shoulder screw

3983, qty 1
ball stud, .300" long black

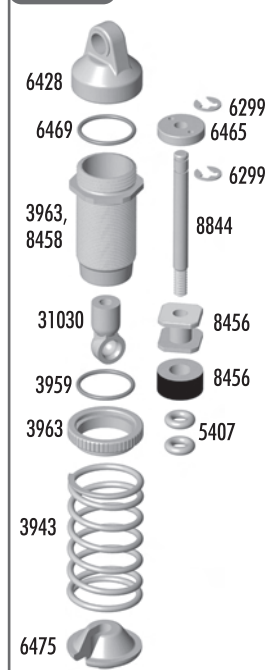
6272, qty 1
dust cover, foam



TC4

Exploded Parts View

Shock



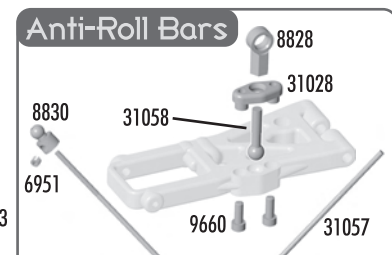
Turnbuckles



Parts List

1401	Titanium Turnbuckle, 1.30"	Pr.	\$8.00	3959	Threaded Shock Collar O-Ring	4	\$1.50	6575	Locking T-Nut, Diff Thrust Bolt & Cover	Set	\$2.00	7869	4-40 x 3/4" FHCS, blue aluminum	8	\$4.99	31062	TC4 Lightened Steel Diff Outdrives	Pr.	\$19.99
1409	Titanium Turnbuckle, 1.00"	Pr.	8.00	3963	TC Threaded Shock Body, Collar, Collar O-Ring & Cap O-Ring	Pr.	20.00	6579	Diff Drive Rings (for steel differential)	2	1.50	8456	VCS Macro Shock Rebuild Kit	Set	4.00	31064	TC4 Aluminum Front Arm Mount, Triangle	1	12.99
1414	Titanium Turnbuckle, 1.125"	Pr.	9.00	3965	TC Axle Bearing Spacer, blue	4	4.00	6581	3/32" Carbide Diff Balls	12	12.00	8828	Anti-Rollbar Cups	Set	2.00	31065	TC4 Aluminum Front Arm Mount, Circle	1	12.99
1781	Factory Team Shock Bushing, blue aluminum	4	5.99	3973	Clamping Hex Drive	4	21.99	6582	Diff Thrust Spring	1	1.50	8830	Anti-Rollbar Pivots	Set	2.00	31066	TC4 Aluminum Rear Arm Mount, Square	1	12.99
2221	4-40 x 7/16" BHCS	6	2.00	3977	Clamping Hex Drive	4	21.99	6587	Servo Saver Spring	1	1.50	8845	Shock Shaft, .35" stroke, unobtanium	1	6.00	31068	TC4 Aluminum Rear Arm Mount, X-2.5	1	12.99
2225	TC4 Bumper Top Brace	1	2.50	3981	Broached Ballstuds, black .200 short neck	6	6.99	6860	4-40 x 3/8" SHCS, blue aluminum	6	2.50	9180	Servo Horns, molded	Set	2.50	31090	FT TC4 Chassis, carbon fiber	1	77.99
2229	Steering Swing Rack Hardware	Set	7.00	3983	Broached Ballstuds, black .300 short neck	6	6.99	6903	3/8 x 5/8" Bearing, PTFE sealed	Pr.	20.00	9630	Ballstud Washer	10	1.50	31091	FT TC4 Top Deck, carbon fiber	1	32.99
2230	TC4 Front/Rear Body Posts	Set	4.00	4334	2-56 x 5/16" BHCS	6	1.50	6906	3/16 x 3/8" Bearing, PTFE sealed	Pr.	13.00	9645	2-56 x 1/8" BHCS	6	2.00	31092	Camber Link Mounts, left, blue aluminum	1	10.99
2368	Front/Rear Transmission Case, top & bottom	Set	5.00	4449	4-40 Aluminum Locknuts, small pattern	5	2.50	6909	3/16 x 5/16" Bearing, for diffs	Pr.	6.00	9660	2-56 x 7/32" SHCS	6	2.00	31093	Camber Link Mount, right, blue aluminum	1	10.99
3438	8-32 Aluminum Locknuts	3	1.50	5407	Red O-Rings	8	2.00	6915	4-40 x 5/8" FHCS	6	2.00	31003	TC4 Steering Rack	Set	4.99	31095	FT TC4 Top Deck Standoffs	4	3.99
3865	10-32 x 5/16" Droop Set Screws	4	1.50	6272	Foam Ballstud Dust Cover	28	2.00	6918	4-40 x 1/2" BHCS	6	2.00	31005	TC4 Steering Block & Hub Carrier, carbon	Set	11.99	31097	FT TC4 Chassis Spine Plate	1	12.99
3874	TC3/TC4 Block Carrier Bushing	4	6.00	6274	Ballcaps, molded	14	5.00	6920	4-40 x 3/8" BHCS	6	2.00	31007	TC4 Suspension Arms, front, carbon	Pr.	10.99	31098	FT TC4 Spine Plate Mounts/Input Bearing Cap/Antenna Mount	Set	5.99
3875	4-40 x 11/32" BHCS w/Shoulder	4	2.00	6277	Broached Ballstud, silver .300 long neck	6	6.99	6922	4-40 x 1/2" FHCS	6	2.00	31009	TC4 Suspension Arms, rear, carbon	Pr.	10.99	31100	FT TC4 Front Shock Tower, carbon fiber	1	13.99
3878	TC4 Inner Hinge Pins	Set	2.99	6288	4-40 x 1/4" BHCS	6	2.00	6926	4-40 x 5/8" SHCS	6	2.00	31010	TC4 Arm Mount Shims, Balls, Wheelbase Shims	Set	2.99	31101	FT TC4 Rear Shock Tower, carbon fiber	1	15.99
3886	TC3/TC4 CVD Stub Axle w/Hardware	2	16.00	6291	4-40 x 1/4" FHCS	6	2.00	6934	4-40 x 3/8" FHCS, blue aluminum	6	2.00	31017	TC4 Caster Block, 4 degrees	Pr.	5.99	31102	FT TC4 Shock Tower Mount, carbon	1	3.99
3897	Pivoting Body Mounts	4	4.00	6299	Small E-Clips	12	1.00	6939	4-40 x 1/4" FHCS, blue aluminum	6	2.00	31019	TC4 Drive Accessories	Set	3.99	31105	FT TC4 Motor Bulkhead, blue aluminum	1	24.99
3904	2-56 Aluminum Locknuts	4	3.00	6332	Body Clips	6	.75	6943	8-32 Aluminum Locknuts, blue	6	4.00	31021	TC4 Main Driveshaft	1	12.99	31110	TC4 Light Weight Foam Bumper	1	4.99
3906	D-Drive Rings (for plastic differential)	Pr.	2.50	6338	Antenna Tube & Cap	1	2.00	6947	4-40 x 3/8" BHCS, blue aluminum	6	2.00	31022	TC4 Steering Bellcrank Post	2	4.99	31111	Low Profile Servo Mounts & Spacers	Set	3.99
3908	Molded Composite Outdrives	2 Pr.	5.00	6428	Molded Shock Cap	1	2.25	7260	4-40 x 11/32" BHCS, blue aluminum	6	2.00	31023	TC4 Foam Front Bumper	1	4.99	31117	FT Titanium Turnbuckle Kit	Set	34.99
3911	TC3/TC4/NTC3 Transmission Shim Set	16	5.00	6469	Shock Cap O-Ring	4	1.50	7337	Servo Mount Washers, steel	4	1.00	31024	TC4 Inner Hinge Pins	Set	2.99	31125	2-56 x 5/16" FHCS	8	1.99
3914	TC Diff Ring Gear & Drive Pinion Gear	Set	7.00	6472	Shock Mount Nuts	4	1.00	7368	3/16" Axle Shims	14	1.50	31026	TC4 Front Bumper	1	4.99				
3915	TC3/TC4 Input Shafts, front & rear	Set	13.00	6475	Shock Spring Cups & Clamps, 4 sets	4	5.00	7369	Universal Roll Pins	4	1.00	31028	Anti-Rollbar Pivot Cap	2	1.99				
3916	3/16 x 5/16" Bearing	Pr.	11.00									31030	TC4 Shock Shaft Ballcaps	4	2.99				

Differential	
Plastic	Steel
6903	6575
3904	6582
3908	31062
3906	6579
3914	3916
6581	3914
3916	6581
3906	6579
3908	31062
6582	6574
6573	6573
6573	6575
6903	

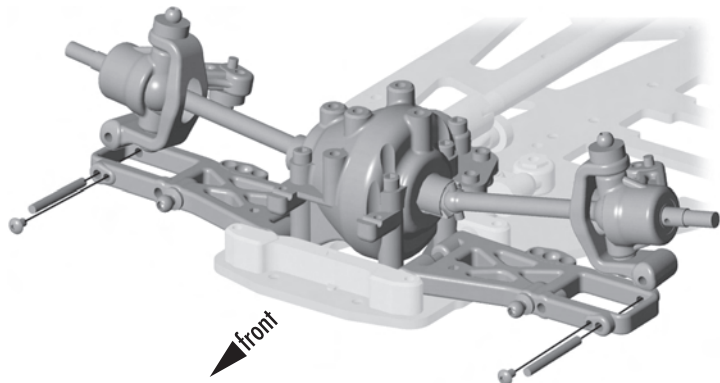


Anti-Roll Bars

Tires, wheels & inserts not included

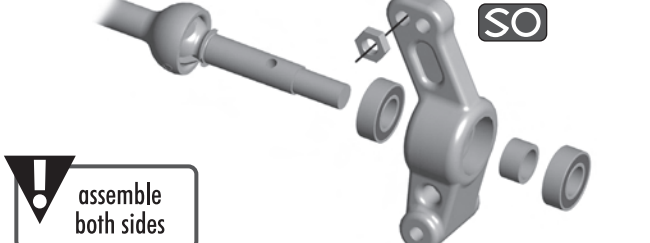
Step 5

- 3878, qty 2
outer hinge pin
- 9645, qty 2
2-56 x 1/8" bhcs



Step 6

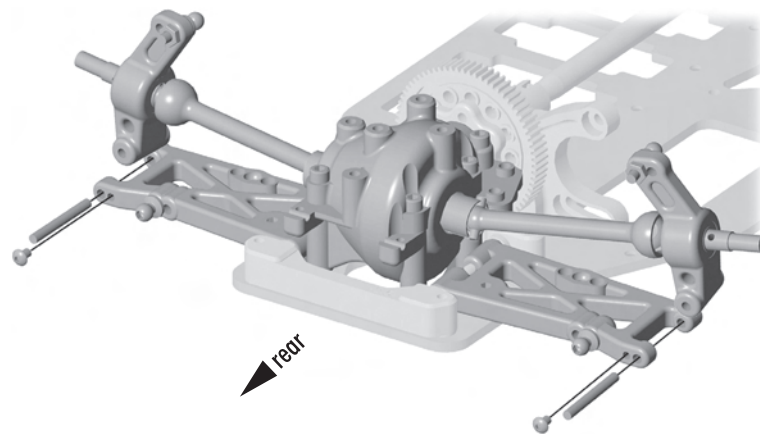
- 3965, qty 1
bearing spacer
- 6906, qty 2
3/16" x 3/8" PTFE
sealed bearing
- 3983, qty 1
ball stud, .300"
long black
- 6272, qty 1
dust cover, foam
- 7260, qty 1
4-40 plain nut
- 31005, qty 1
hub carrier, carbon



! assemble both sides

Step 7

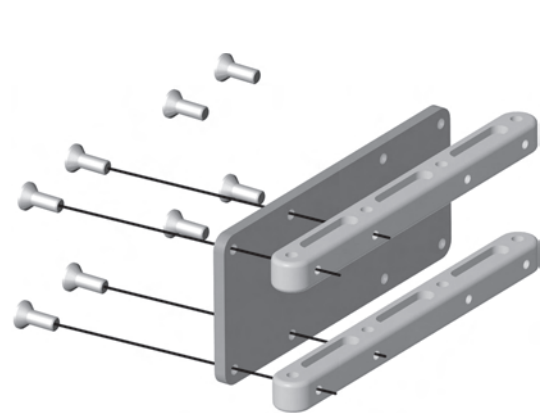
- 3878, qty 2
outer hinge pin
- 9645, qty 2
2-56 x 1/8" bhcs



Step 1

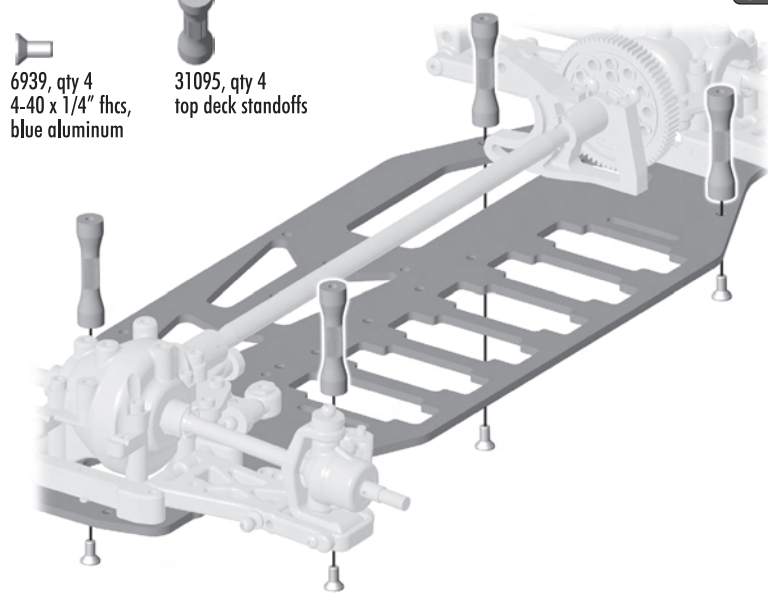
Bag G - Chassis Spine

- 31125, qty 8
2-56 x 5/16" fhcs
- 31097, qty 1
chassis spine
- 31098, qty 2
chassis spine mounts



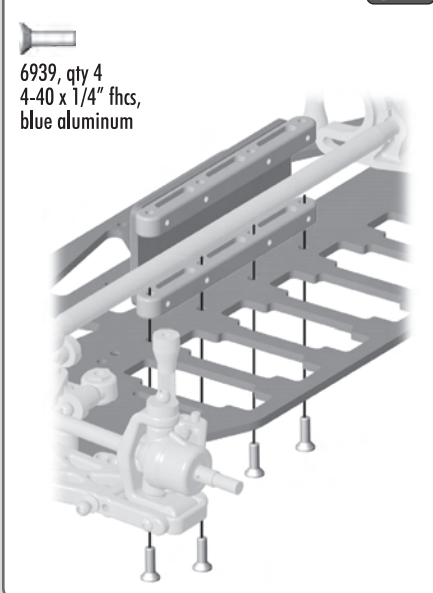
Step 2

- 6939, qty 4
4-40 x 1/4" fhcs,
blue aluminum
- 31095, qty 4
top deck standoffs



Step 3

- 6939, qty 4
4-40 x 1/4" fhcs,
blue aluminum



Step 4

6922, qty 2
4-40 x 1/2" fhs

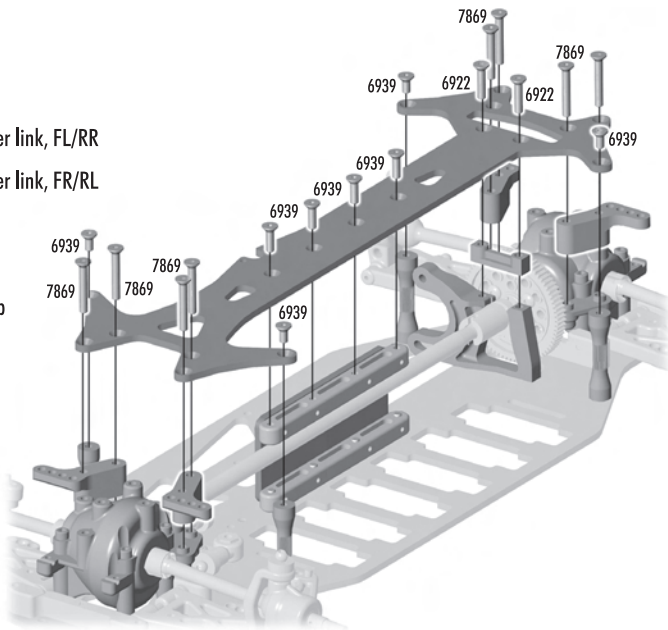
6939, qty 8
4-40 x 1/4" fhs,
blue aluminum

7869, qty 8
4-40 x 3/4" fhs,
blue aluminum

31091, qty 1
tc4 carbon fiber
top deck

31092, qty 2
aluminum camber link, FL/RR
31093, qty 2
aluminum camber link, FR/RL

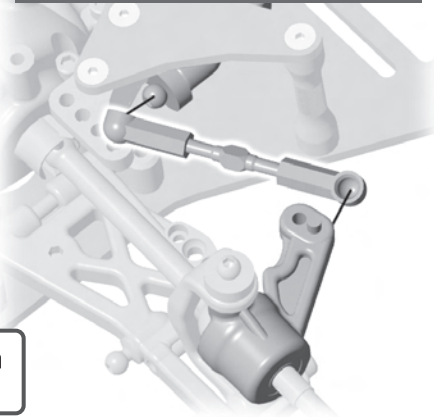
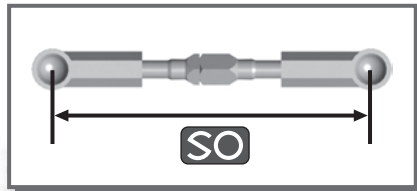
31098, qty 1
input bearing cap



Step 1

1414, qty 1
titanium turnbuckle, 1.125"

6274, qty 2
ball cup



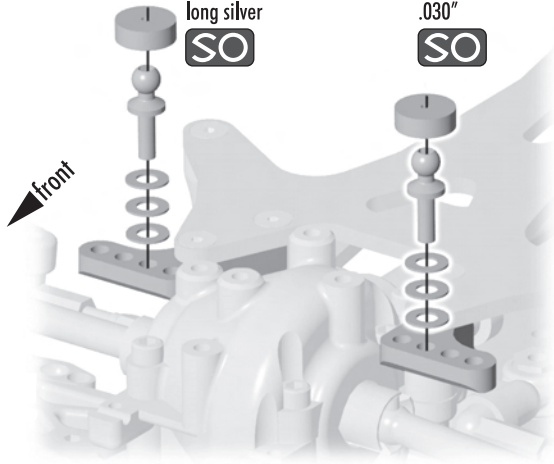
! assemble and attach
2 steering linkages

Step 2

6272, qty 2
dust cover, foam

6277, qty 2 (1 per side)
ballstud, .300"
long silver

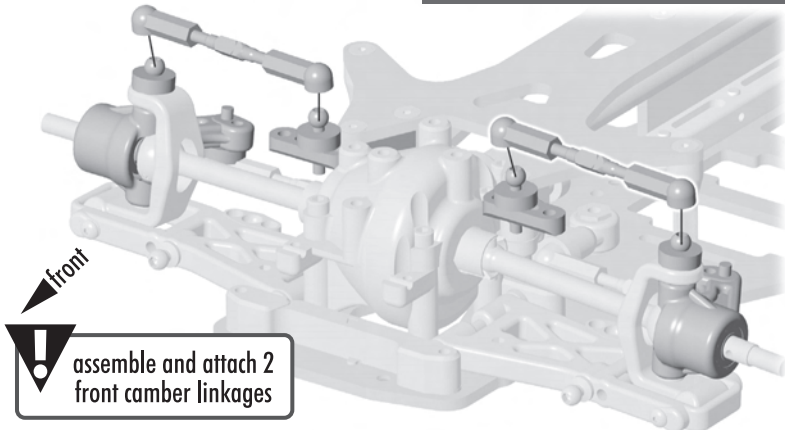
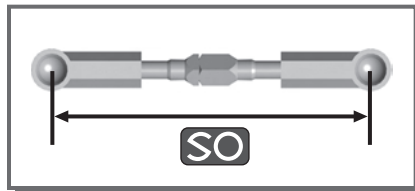
9630, qty 6 (3 per side)
ball stud washer
.030"



Step 3

1401, qty 1
titanium turnbuckle, 1.30"

6274, qty 2
ball cup



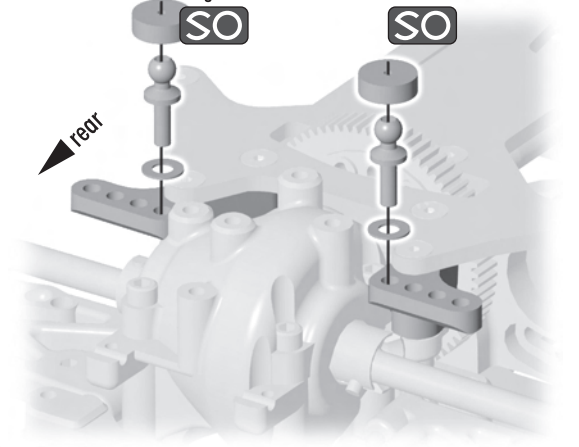
! assemble and attach
2 front camber linkages

Step 4

6272, qty 2
dust cover, foam

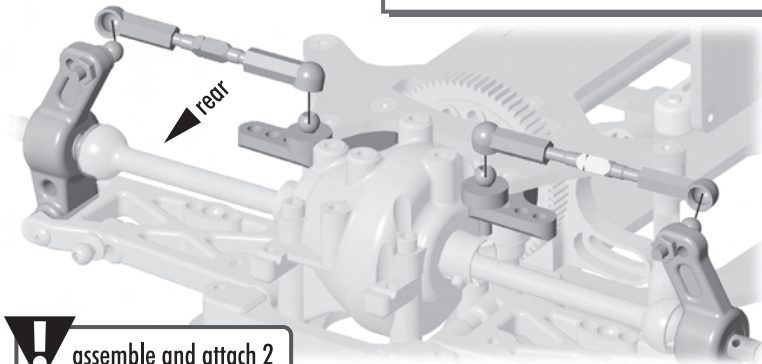
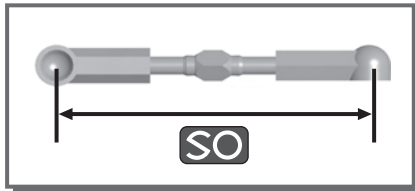
6277, qty 2 (1 per side)
ballstud, .300"
long silver

9630, qty 2 (1 per side)
ball stud washer
.030"



Step 5

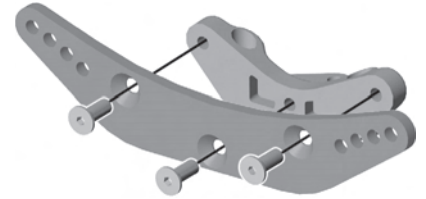
- 1401, qty 1 titanium turnbuckle, 1.30"
- 6274, qty 2 ball cup



! assemble and attach 2 rear camber linkages

Step 1

- 6939, qty 3 4-40 x 1/4" fhcs, blue aluminum
- 31100, qty 1 front shock tower
- 31102, qty 1 shock tower mount

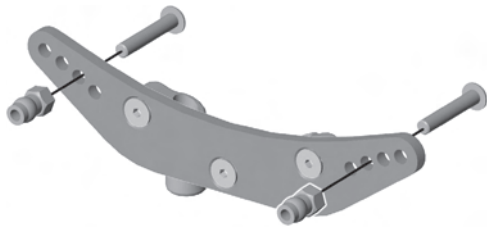


Bag 1 - Shock Towers

Step 2

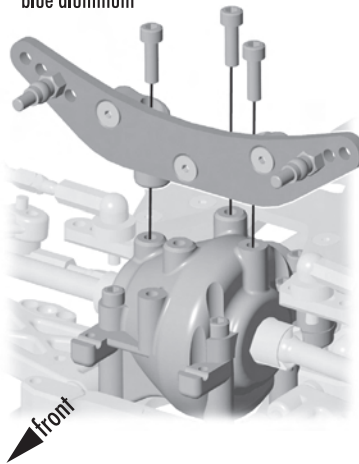
SO

- 1781, qty 2 shock bushing, blue aluminum
- 7633, qty 2 4-40 x 5/8" bhcs



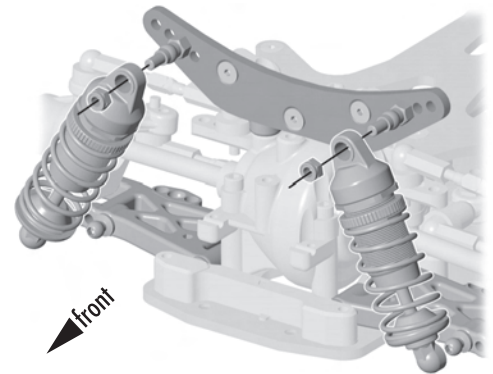
Step 3

- 6860, qty 3 4-40 x 3/8" shcs, blue aluminum



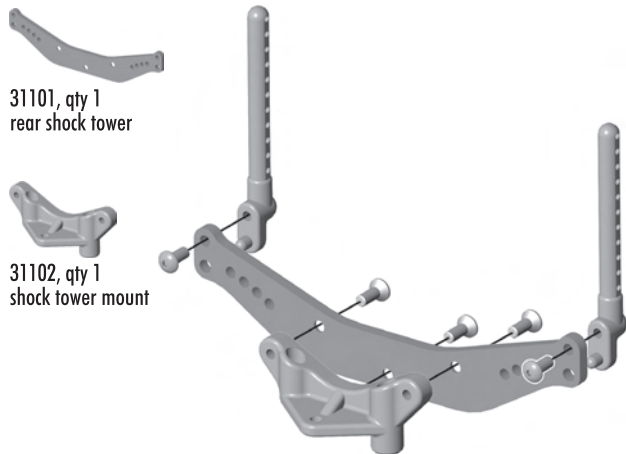
Step 4

- 4449, qty 2 4-40 aluminum locknut



Step 5

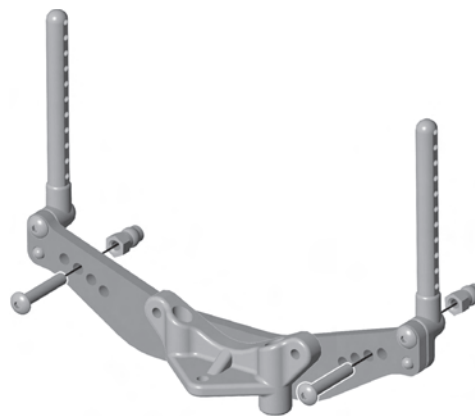
- 2230, qty 2 rear body posts
- 6919, qty 2 4-40 x 5/16" bhcs
- 6939, qty 3 4-40 x 1/4" blue aluminum fhcs



Step 6

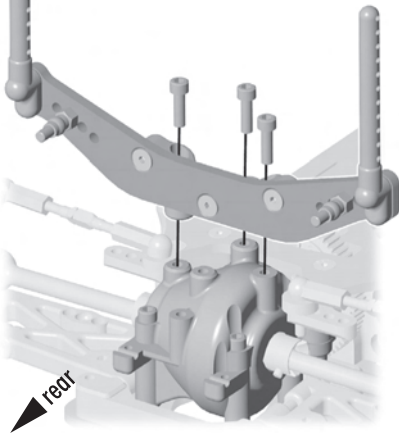
SO

- 1781, qty 2 shock bushing, blue aluminum
- 7633, qty 2 4-40 x 5/8" bhcs



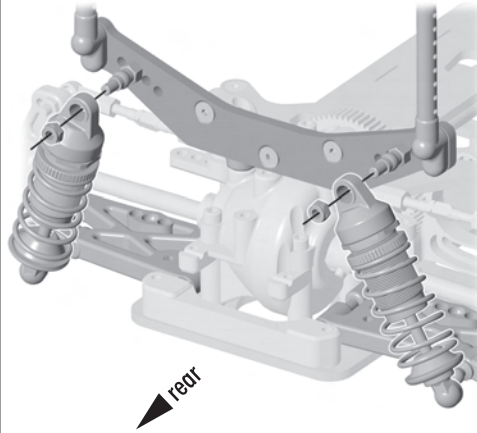
Step 7

6860, qty 3
4-40 x 3/8" shcs,
blue aluminum



Step 8

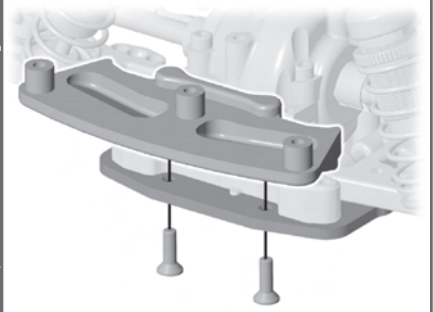
4449, qty 2
4-40 aluminum locknuts



Step 1

6292, qty 2
4-40 x 3/8" fhcs

31026, qty 1
front bumper



Bag J - Bumper & Body

Step 2

2225, qty 1
bumper top brace

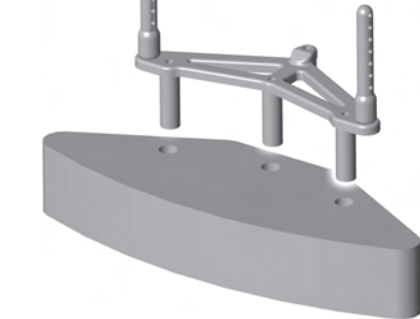
2230, qty 2
body posts

6292, qty 2
4-40 x 3/8" fhcs



Step 3

31110, qty 1
lightweight
foam bumper



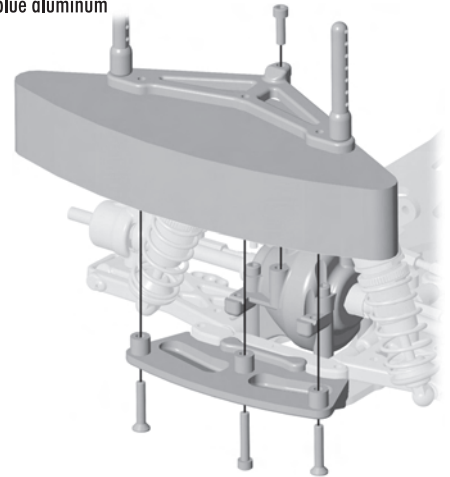
! foam bumper may require
trimming to fit under some bodies

Step 4

6860, qty 1
4-40 x 3/8" shcs,
blue aluminum

6915, qty 2
4-40 x 5/8" fhcs

6926, qty 1
4-40 x 5/8" shcs

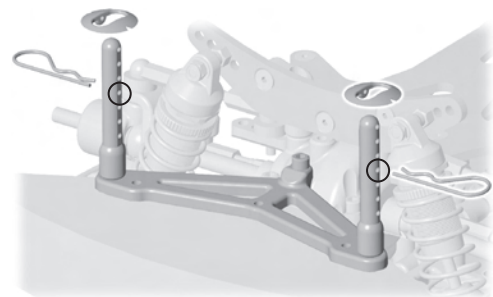


Step 5

SO

3897, qty 2
pivoting body mount

6332, qty 2
body clip



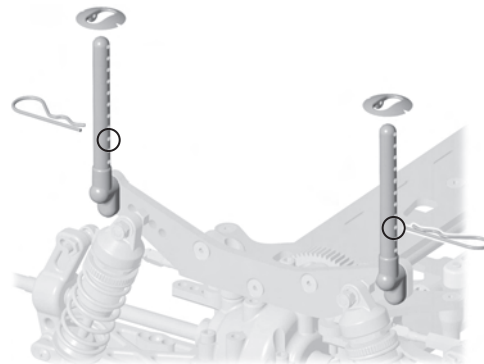
! body mount height will
vary with body selection

Step 6

SO

3897, qty 2
pivoting body mount

6332, qty 2
body clip



! body mount height will
vary with body selection



Bag K - Electronics Install

Step 1

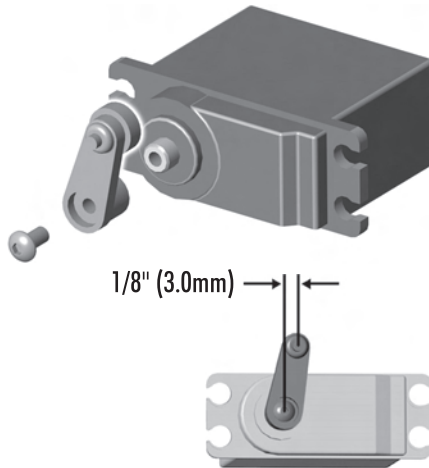
3981, qty 1
ball stud, .200"
black

6272, qty 1
dust cover, foam

9180, qty 4
servo horn



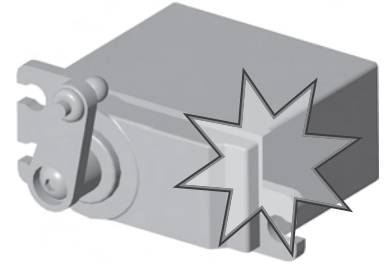
Step 2



1/8" (3.0mm)

! assemble using stock servo screw

Step 3



! to properly install the servo into your Factory Team TC4, you will need to remove the upper (inner) mounting ear from the case (see diagram)

Step 4

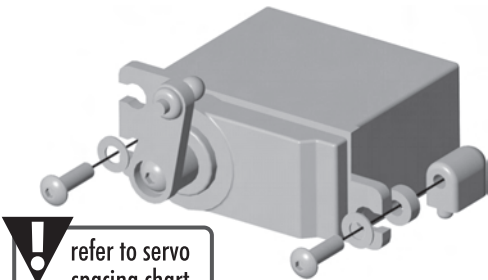
6947, qty 2
4-40 x 3/8" bhcs,
blue aluminum

7337, qty 2
washer

31111, qty 2
ft servo mount

31111, qty 2
ft servo mount
spacer - thin

31111, qty 2
ft servo mount
spacer - thick



! refer to servo spacing chart

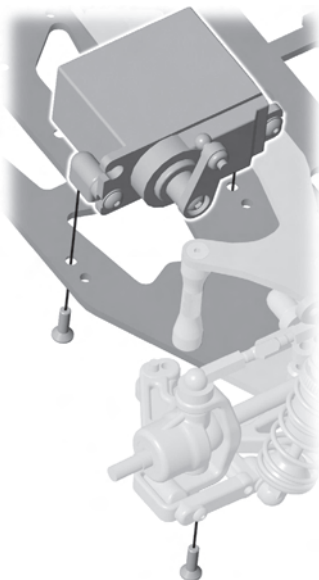
Steering Servo Chart *

*Not all servo's are listed.

	#31111 Spacer	#9180 Servo Arm
Airtronics 94102	no spacer	A
Airtronics 94738, 94157, 94158, 94257, 94258, 94357, 94358, 94452, 94453, 94751, 94755	thick spacer	A
Hitec HS-5625MG, HS-5645MG, HS625MG, HS645MG	no spacer	H
Hitec HS-303, HS-300BB, HS-945MG, HS-925MG, HS- 5945MG, HS-5925MG, HS-525MG, HS-525BB, HS-425BB, HS-422	thin spacer	H
JR Z4725, Z4750, Z2750, Z8450, Z8550, NES-4750	no spacer	J
JR Z250, Z550	thin spacer	J
Futaba S9204, S9250, S9450, S148	no spacer	F
Futaba S3003, S9202, S9101	thin spacer	F
Futaba S9404	thick spacer	F
KO PS-401, PS-2001, PS-2004, PS-2015, PS-2173, PS-2174, PS-2123, PS-2143, PS-2144	thin spacer	J

Step 5

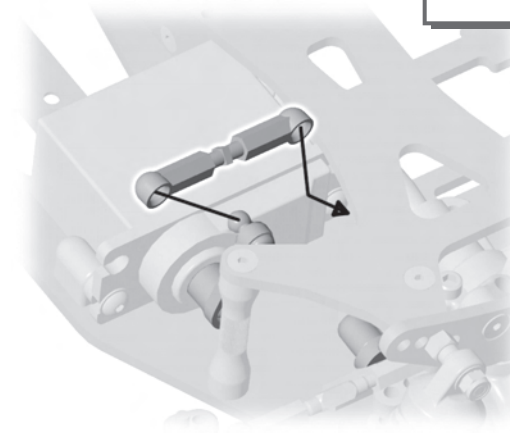
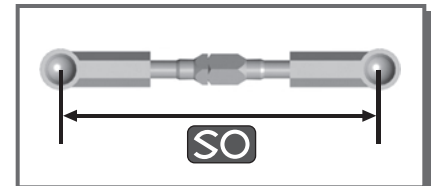
6934, qty 2
4-40 x 3/8" fhcs,
blue aluminum



Step 6

1409, qty 1
titanium turnbuckle, 1.00"

6274, qty 2
ball cup



Step 7



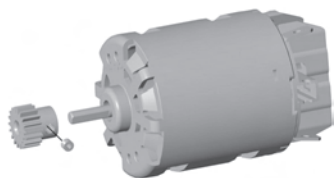
pinion gear

SO



pinion set screw

SO



! motor, pinion & set screw not included

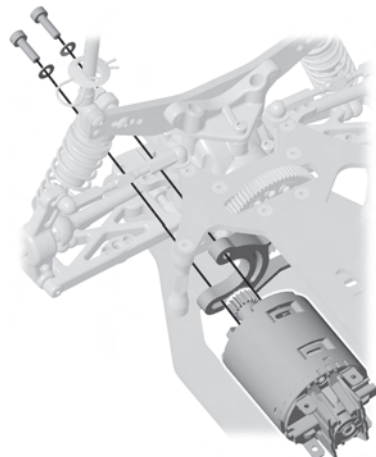
Step 8



6515, qty 2
3mm motor mount screw



9630, qty 2
ballstud washer .030"



Step 9



4334, qty 2
2-56 x 5/16" bhcs

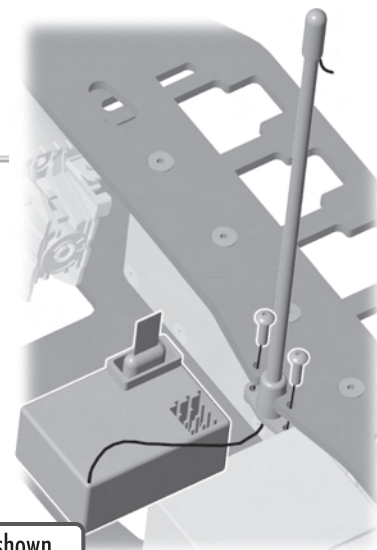
6338, qty 1
antenna tube & cap

6727, qty 1
servo tape



31098, qty 1
antenna mount

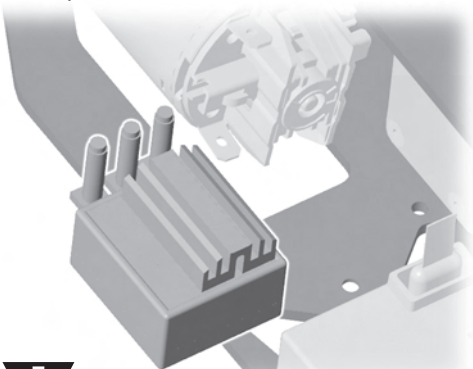
! feed antenna as shown
attach receiver to chassis
with servo tape



Step 10



6727, qty 1
servo tape



! attach speed control to chassis with servo tape

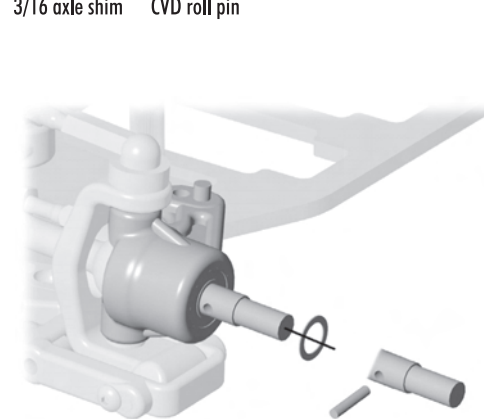
Step 1



7368, qty 1
3/16 axle shim



7369, qty 1
CVD roll pin



Bag L - Wheels & Tires

Step 2



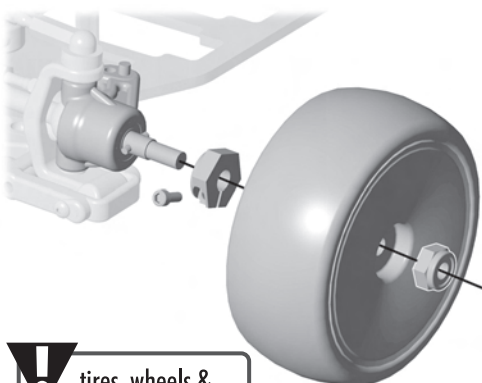
3973, qty 1
damping hex drive



3438, qty 1
8-32 locknut



9660, qty 1
2/56 x 7/32" shcs



! tires, wheels & inserts not included

Step 1



8828, qty 1
anti-roll bar ballcup



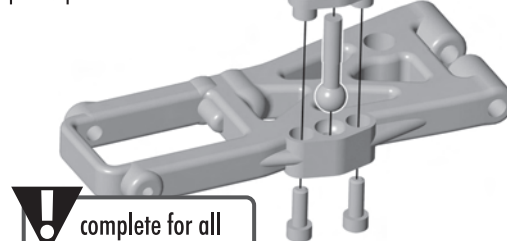
31058, qty 1
anti-roll bar pivot



9660, qty 1
2/56 x 7/32" shcs



31028, qty 1
anti-roll bar pivot cap

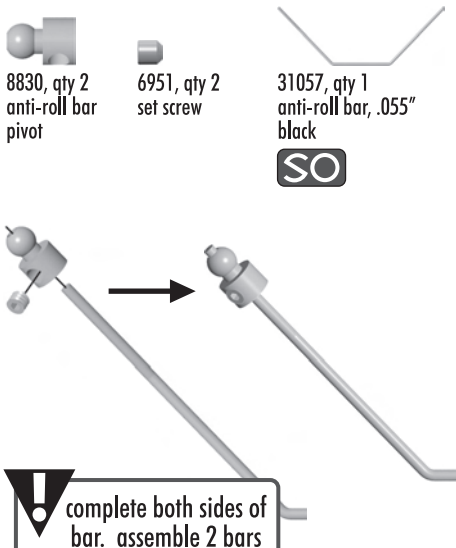


! complete for all 4 suspension arms

Bag M - Anti-Roll Bars

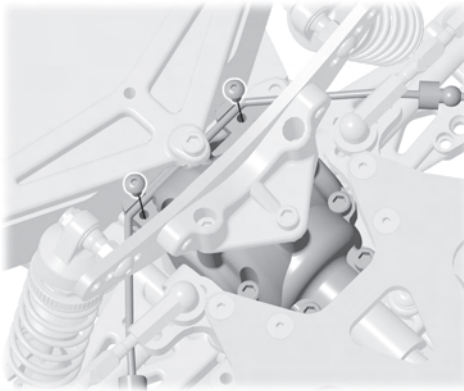


Step 2



Step 3

9146, qty 2
2-56 x 3/16" bhcs



Step 4



Congratulations!

This completes the assembly of the Team Associated Factory Team TC4.

Tuning Adjustments

Ackermann

The inside hole on the steering blocks gives more Ackermann, while the outboard hole yields less Ackermann. 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 Shimming

The TC4s new arm mounting system allows for maximum adjustability for both asphalt and foam tire conditions. The shimming system allows you to run the pins flat, kick-up, anti-dive, anti-squat, and pro-squat. Each shim is numbered 1, 2, and 3 is designated by the number of tabs on the shim. To determine what you are running, for each pair of mounts (Δ and \circ for front, \square and X for rear) subtract the number of tabs on the forward arm mount (Δ or \square) from the number of tabs on the rearward arm mount (\circ or X).

Some examples:

Front Suspension

triangle	circle	result	Type	Roll Center
2	2	0	flat	std.
3	3	0	flat	high
0	0	0	flat	low
4	2	+2	kick-up	std.
2	0	+2	kick-up	low
2	1	+1	kick-up	low
2	4	-2	anti-dive	high
0	2	-2	anti-dive	low
1	2	-1	anti-dive	std.

Rear Suspension

square	x	result	Type	Roll Center
4	4	0	flat	std.
6	6	0	flat	high
2	2	0	flat	low
4	2	+2	anti-squat	std.
2	0	+2	anti-squat	low
4	3	+1	anti-squat	std.
2	4	-2	pro-squat	std.
0	2	-2	pro-squat	low
3	4	-1	pro-squat	std.

Also, you can raise or lower the mounts for maximum roll-center adjustability. Simply raise the mounts in equal increments under both mounts and you can raise the roll center. Lowering the mounts in equal increments will lower the roll center.

Anti-Dive

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

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

Kick-Up

Front mount higher than rear mount, positive result. Increasing kick-up will make the front suspension stiffer, 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. Adding 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.

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. You can lower the ballstud from standard by using a black short-neck ballstud.

Ride Height

The standard starting point for ride height is 5mm front and rear and will be used at 90% of conditions. You can lower the front slightly relative to the rear to gain steering. Raise the car slightly for tracks with banking or large bumps. Some carpet tracks have a minimum ride height so check with the track manager.

Wheelbase

Moving the wheels towards the center of the car will increase traction on that end of the car. 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.

Motor Gearing

Spur (48 Pitch)

	69	70	71	72	73	74	75
18	9.58	9.72	9.86	10.00	10.14	10.28	10.42
19	9.08	9.21	9.34	9.47	9.61	9.74	9.87
20	8.63	8.75	8.88	9.00	9.13	9.25	9.38
21	8.21	8.33	8.45	8.57	8.69	8.81	8.93
22	7.84	7.95	8.07	8.18	8.30	8.41	8.52
23	7.50	7.61	7.72	7.83	7.93	8.04	8.15
24	7.19	7.29	7.40	7.50	7.60	7.71	7.81
25	6.90	7.00	7.10	7.20	7.30	7.40	7.50
26	6.63	6.73	6.83	6.92	7.02	7.12	7.21
27	6.39	6.48	6.57	6.67	6.76	6.85	6.94
28	6.16	6.25	6.34	6.43	6.52	6.61	6.70
29	5.95	6.03	6.12	6.21	6.29	6.38	6.47
30	5.75	5.83	5.92	6.00	6.08	6.17	6.25
31	5.56	5.65	5.73	5.81	5.89	5.97	6.05
32	5.39	5.47	5.55	5.63	5.70	5.78	5.86

Pinion (48 Pitch)

Chassis Adjustment

Chassis Adjustment	Result	Track Conditions
Stiff	More Responsive	High Grip
↑	↑	↑
↓	↓	↓
Soft	Less Responsive	Low Grip

Rear Toe-In

The TC4 comes with 3 rear toe-in per side. Decreasing toe-in will decrease rear traction and increase corner speed. The optional parts needed are #31068 2.5 degree toe-in and #31069 2.0 degree toe-in blocks.

Motor	72t Spur
24-degree stock (torque based)	28
24-degree stock (RPM based)	27
19 Turn Spec	30
12-Turn Modified (Big Track)	25
12-Turn Modified	24
11-Turn Modified	22
10-Turn Modified	21
9-Turn Modified	20
8-Turn Modified	19

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

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 cannot 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 • www.TeamAssociated.com • www.CompetitionX.com





Associated Electric, Inc.
3585 Cadillac Ave.
Costa Mesa, CA 92626 USA