

PRO-CAT

Classic



Instruction Manual ISS01



IMPORTANT SAFETY NOTES

- We strongly recommend that anyone driving RC cars, or organising events, should obtain third party liability insurance. In the UK this can be done by joining the BRCA. www.brca.org
- This product is not suitable for children under the age of 14, without the direct supervision of a responsible adult.
- Select an area for assembly that is away from the reach of small children.
- The parts in this kit are small and can be swallowed by children causing choking and possible internal injuries.
- Exercise care when using hand tools and sharp instruments during assembly.
- Carefully read all manufacturers warnings and cautions for any additional items used in the construction.
- In line with our policy of continuous development the exact details of the kit may vary.
- DO NOT use this car on public roads or in places where it can interfere with traffic, people or animals.
- Always check the operation of the radio with the wheels off the ground, before using the car.
- Make sure the radio and car batteries are fully charged before use.
- Disconnect and remove the battery from the car when not in use.
- Always store and charge LiPo batteries in a fireproof container.
- DO NOT put fingers or any objects inside rotating or moving parts as this may cause injury.
- Make sure the charger is correctly set for the type of battery you are using.
- Incorrect charging may cause a fire.
- Insulate all exposed electrical wiring. Exposed or damaged wires can cause short circuits and fire.
- The motor and speed controller can become hot during use. DO NOT touch them immediately after using your car as this may cause injury.

ADDITIONAL ITEMS REQUIRED



Radio Equipment



Motor and Pinion Gear



2S Shorty LiPo
or Nimh/NiCd



Battery Charger



Steering Servo



Electronic Speed Controller



Pro Tyre Glue



Polycarbonate Paint

TOOLS REQUIRED

1.5mm Hex Driver - U2789 (Option)

2.0mm Hex Driver - U2790 (Option)

2.5mm Hex Driver - U2791 (Option)

4.0mm Phillips Screwdriver - AM140140

5.5mm M3 Nut Driver - U2795

Body Reamer - U2818

Pliers - CR528

Side Cutters - CR527

Soldering Iron - CR275

Solder - U3107

Curved Scissors - CR044

Circlip Pliers - HW010

ICON KEYS

MOLY GREASE CORE RC Molybdenum Thrust Race Grease 10ml - CR755

LITHIUM GREASE CORE RC High Performance Lithium Grease 10ml - CR752

THREAD LOCK CORE RC Medium Thread Lock 3ml - CR520

CA GLUE CORE RC 522 Pro Tyre Glue 20g + 2 Nozzles - CR522

SILICONE GREASE CORE RC Silicone Ball Diff Grease 10ml - CR753



Caution/Important note. Please read.



Left-Hand Side of car




Right-Hand Side of car

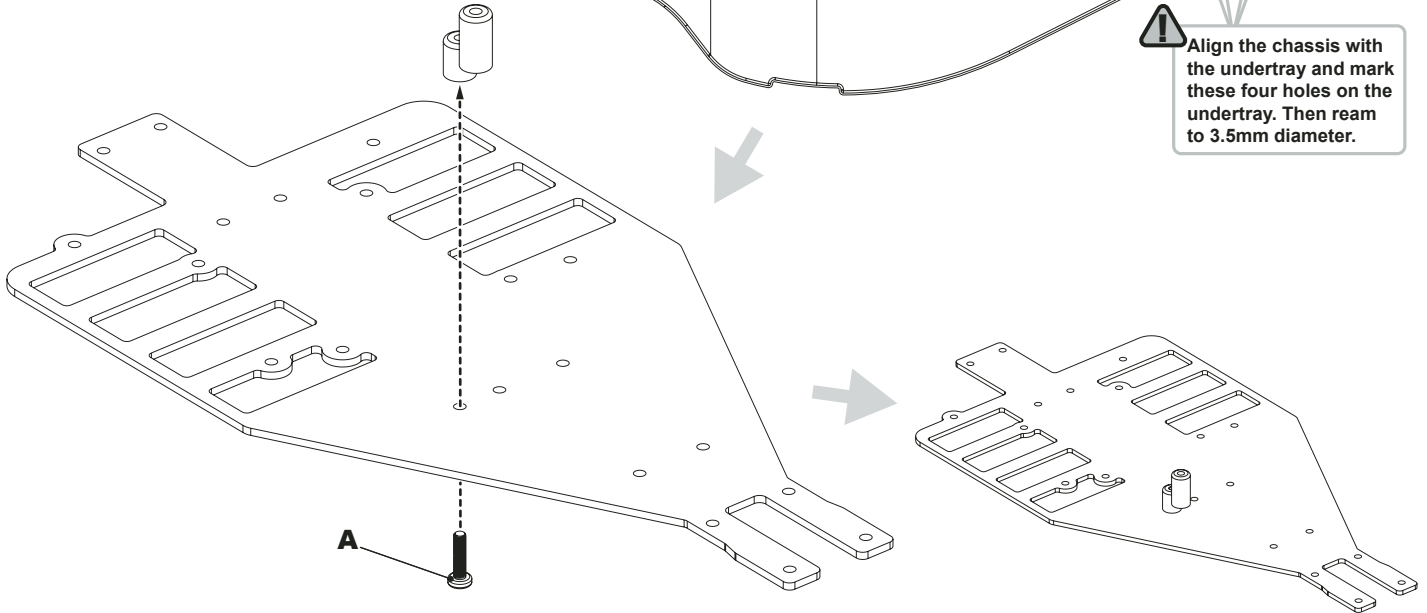


BAG A - Step 01

A x1 
M3x 12 Pan Hd Screw

 Use a 3mm drill bit to drill the undertray holes.


 Align the chassis with the undertray and mark these four holes on the undertray. Then ream to 3.5mm diameter.



BAG A - Step 02

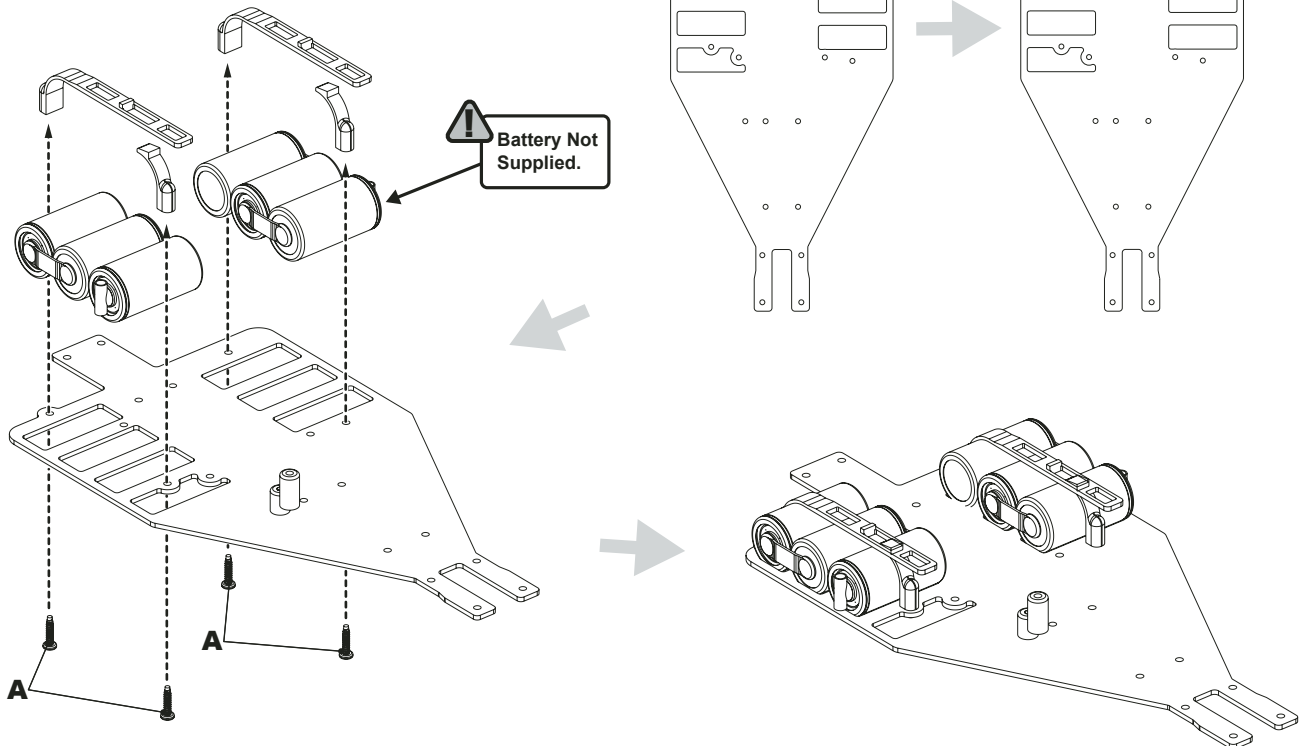
A x4 
No4x 1/2" Pan Hd Screw

NiMh & NiCd Battery Fitting

 Before proceeding, decide which type of batteries you plan to use.
NiMh & NiCd - Use Step 02
LiPo - Use Step 03

 File lugs to allow better cell location.

 Battery Not Supplied.



BAG A - Step 03

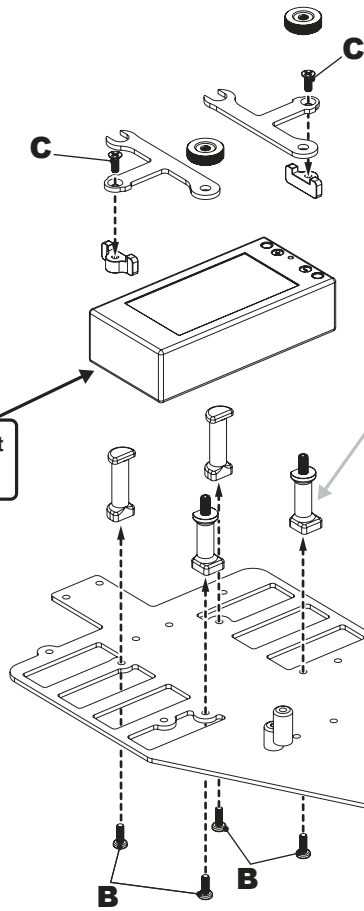
A x2 
M4x 20 Grub Screw

B x4 
M3x 8 Pan Hd Screw

C x2 
M3x 8 Csk Hd Screw

LiPo Battery Fitting


 Battery Not Supplied.

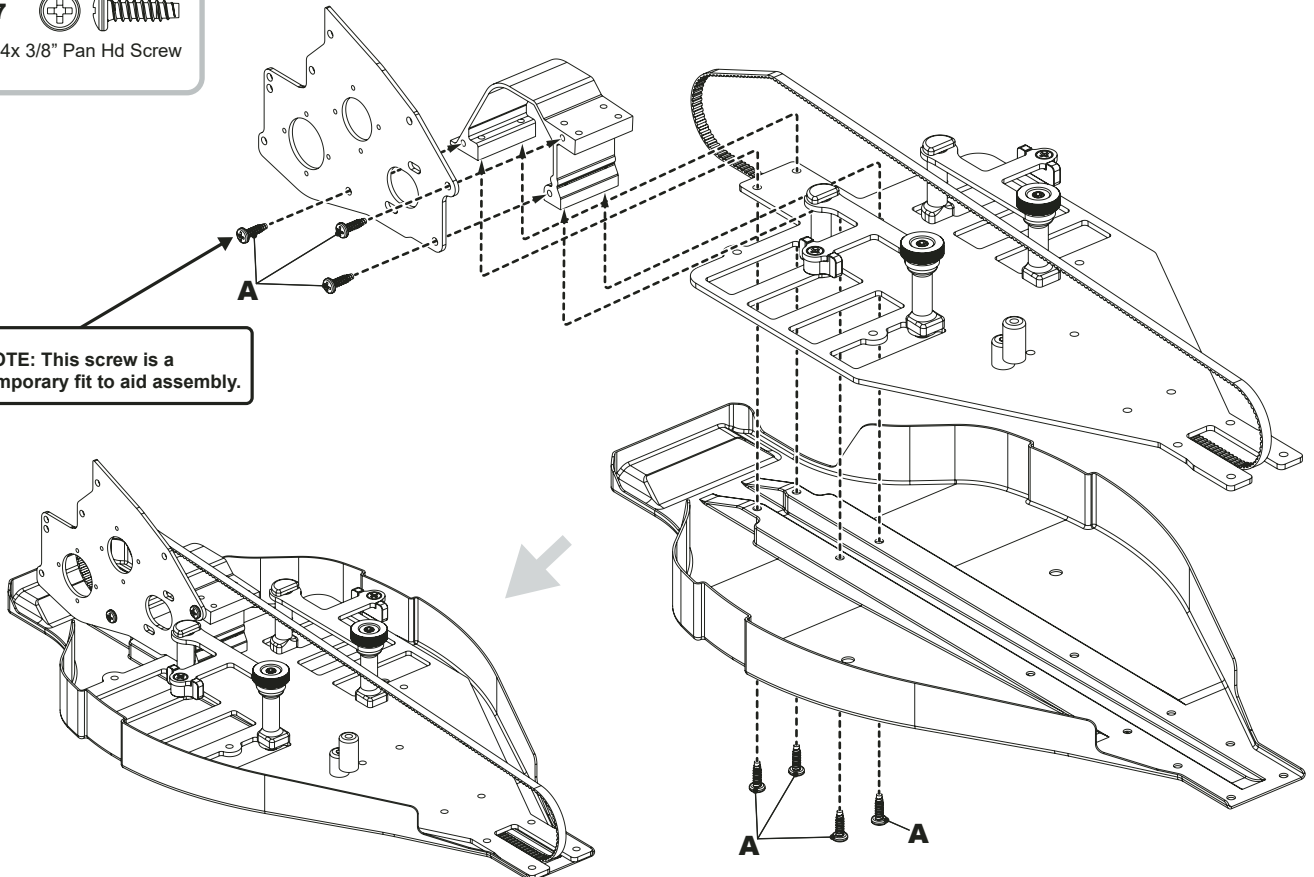


For LCG LiPo batteries use option posts U7046.

BAG A - Step 04

A x7 
No4x 3/8" Pan Hd Screw

 NOTE: This screw is a temporary fit to aid assembly.

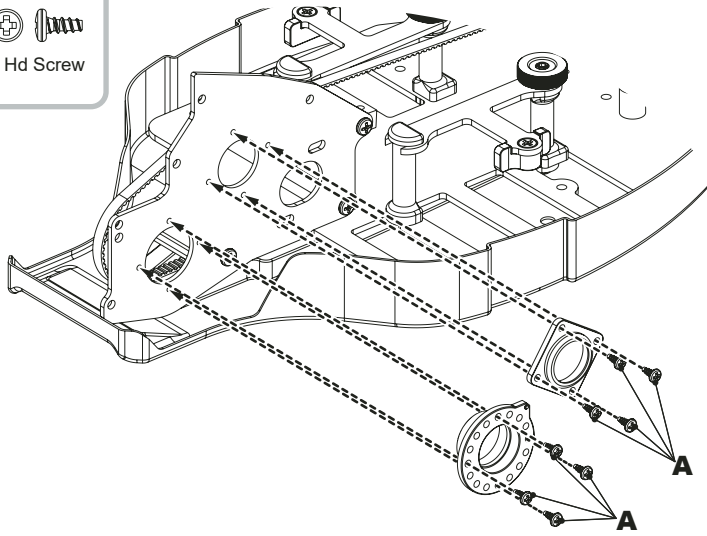


BAG A - Step 05

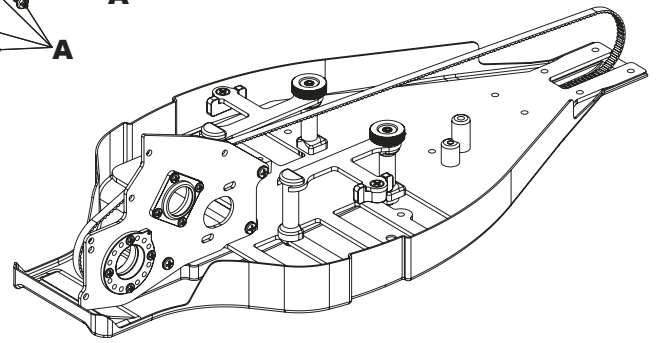
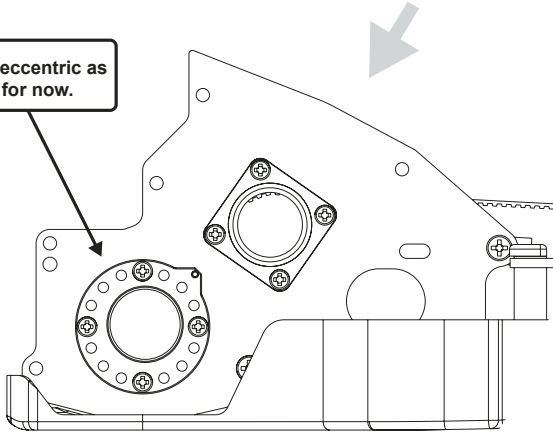
A x8



No2x 3/16" Pan Hd Screw



! Set the eccentric as shown, for now.

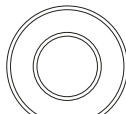


BAG A - Step 06

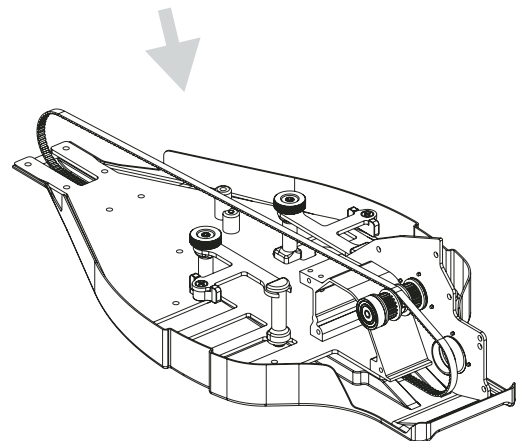
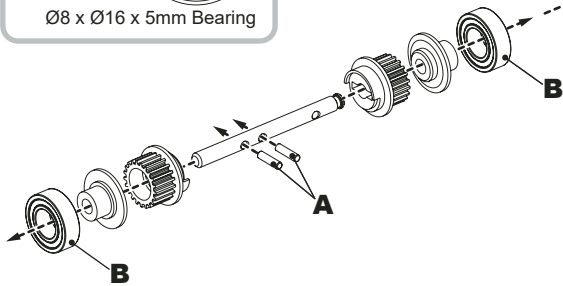
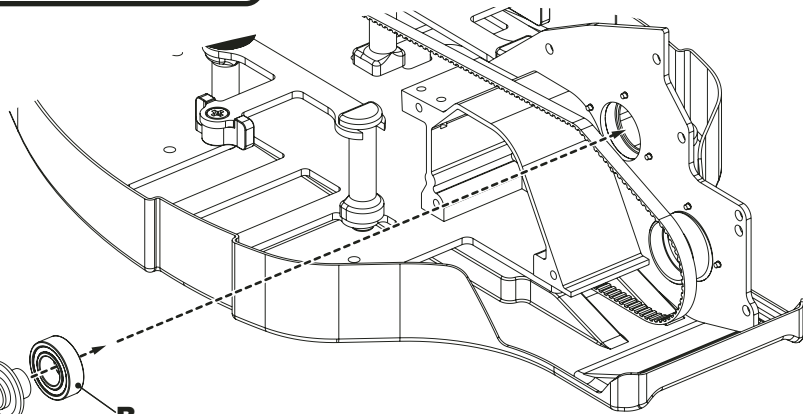
A x2

Ø2.0 x 7.8mm Pin

B x2

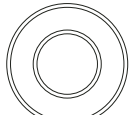


Ø8 x Ø16 x 5mm Bearing



BAG A - Step 07

A x2



Ø8 x Ø16 x 5mm Bearing

B x1



Grooved Thrust Washer (Large)

C x1



Thrust Race

D x1

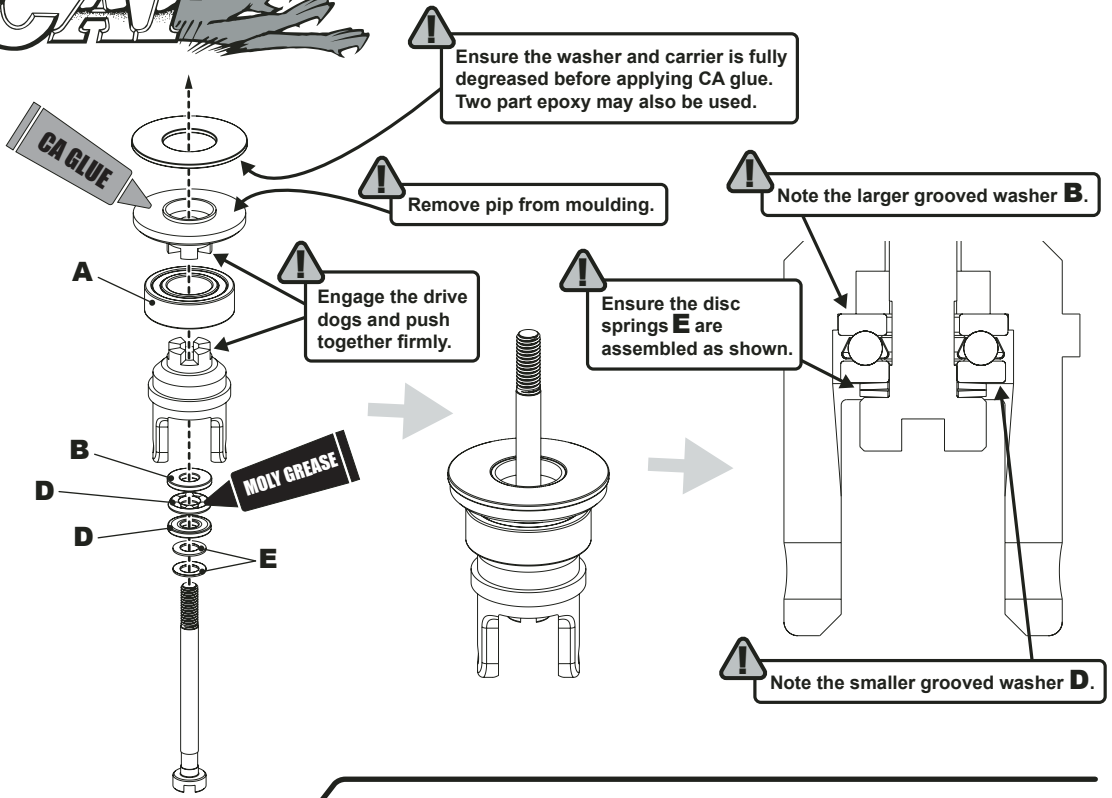


Grooved Thrust Washer (Small)

E x2



Ø6 x Ø3.2 x Ø0.3mm Disc Spring

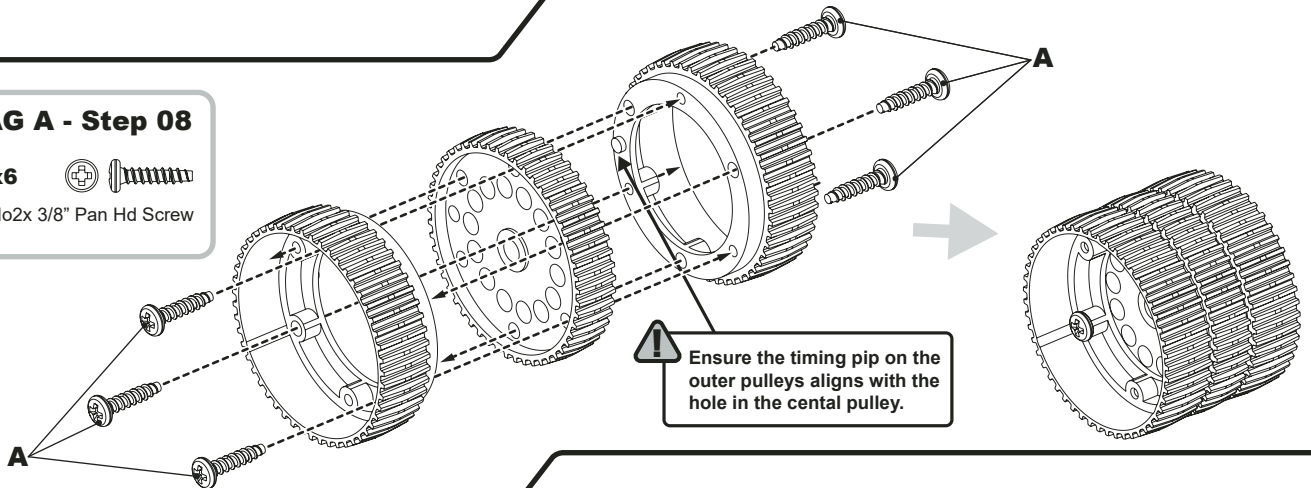


BAG A - Step 08

A x6



No2x 3/8" Pan Hd Screw



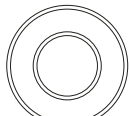
BAG A - Step 09

A x1



M3 Nyloc Nut

B x1

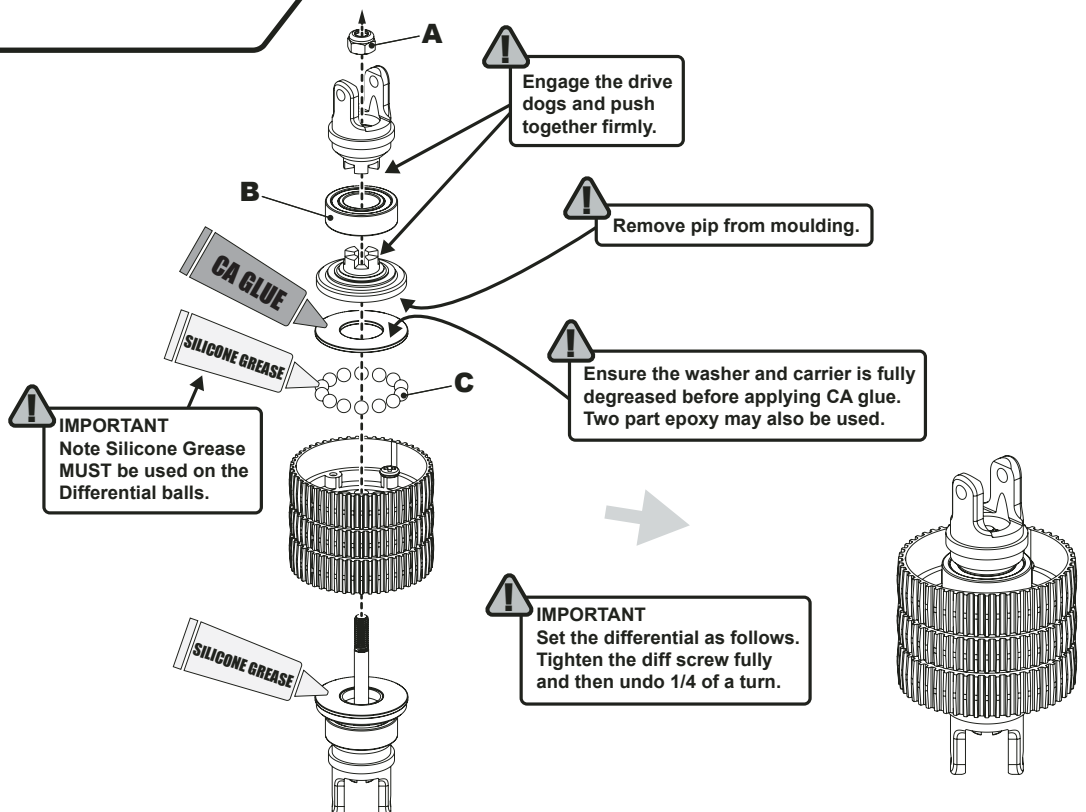


Ø8 x Ø16 x 5mm Bearing

C x14



Ø3mm Chrome Steel Diff Ball



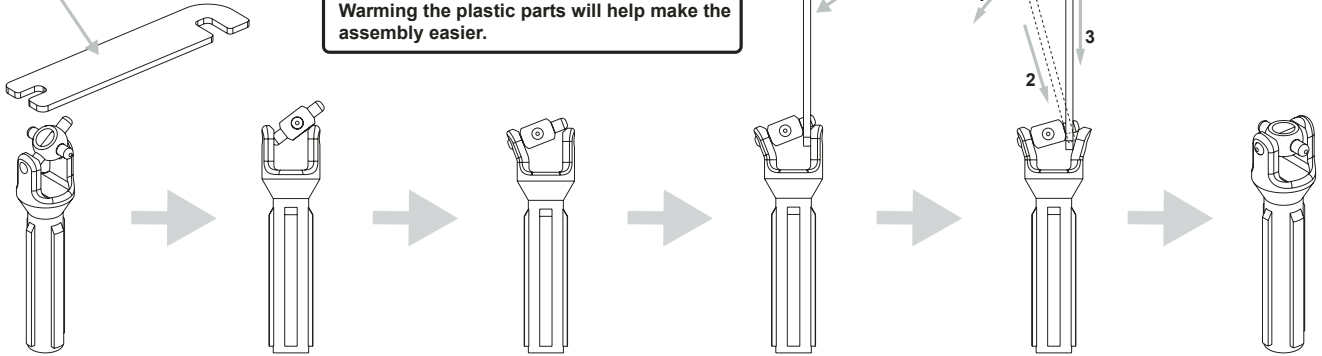
BAG B - Step 10

U.J. Spanner

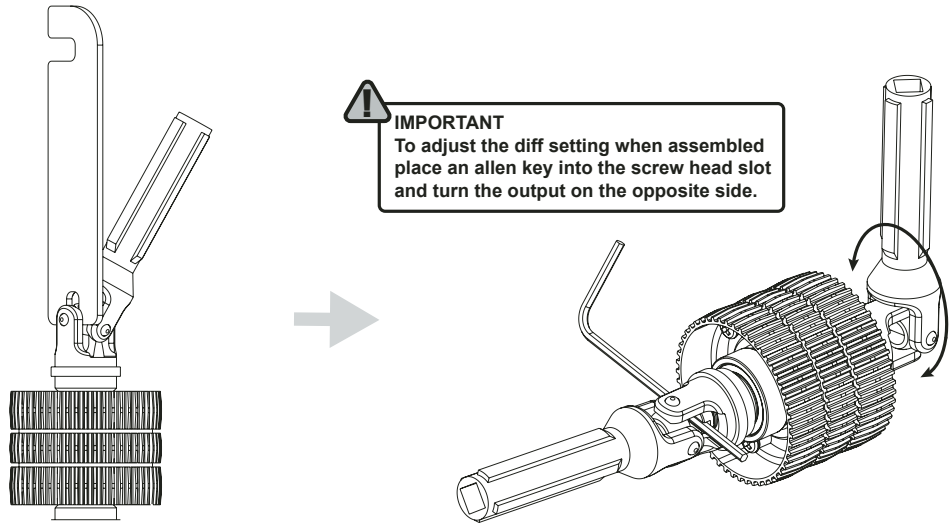
! IMPORTANT
The sequence of drawings below shows the assembly procedure of all universal joints, driveshafts, axles and diff outputs. Warming the plastic parts will help make the assembly easier.

U.J. Spanner

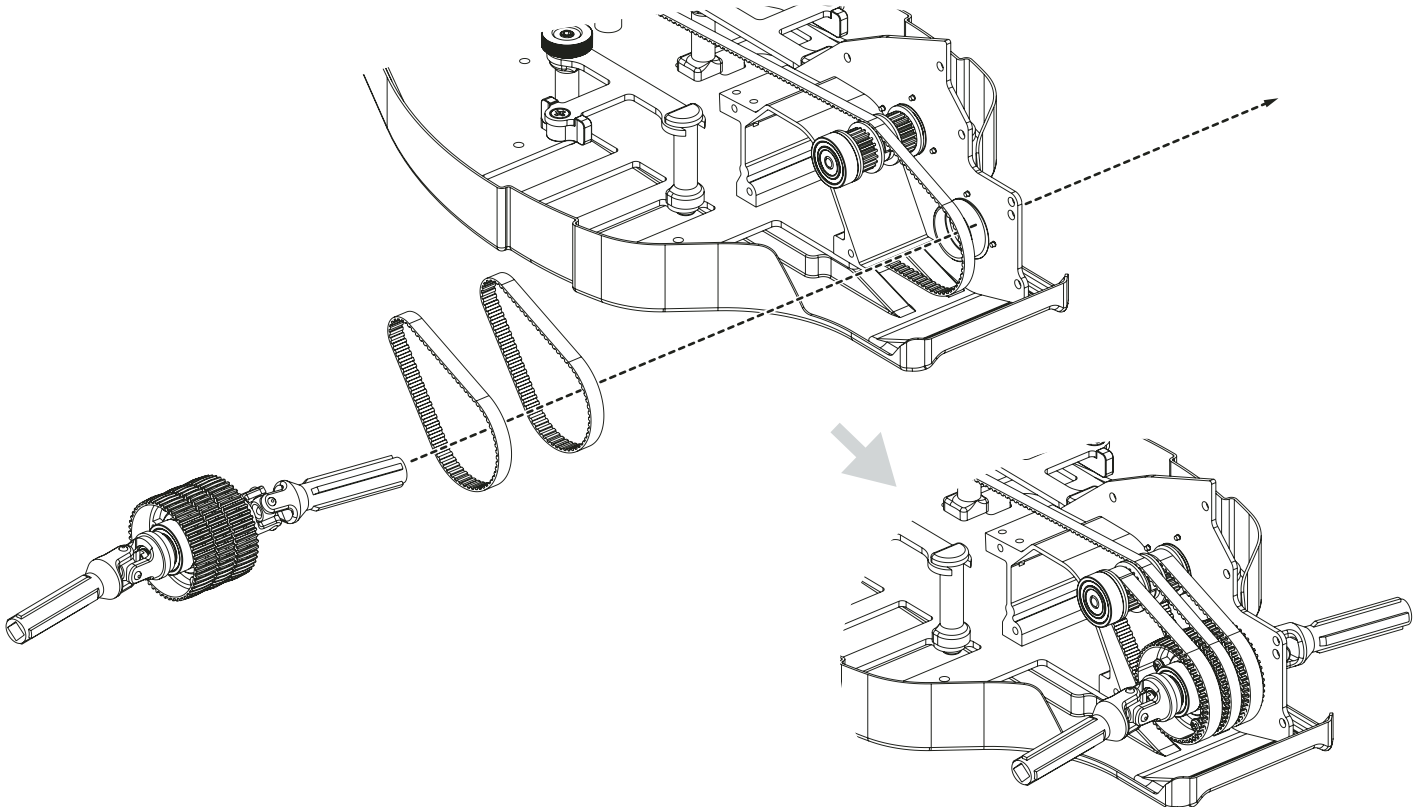
1
2
3



! IMPORTANT
To adjust the diff setting when assembled place an allen key into the screw head slot and turn the output on the opposite side.




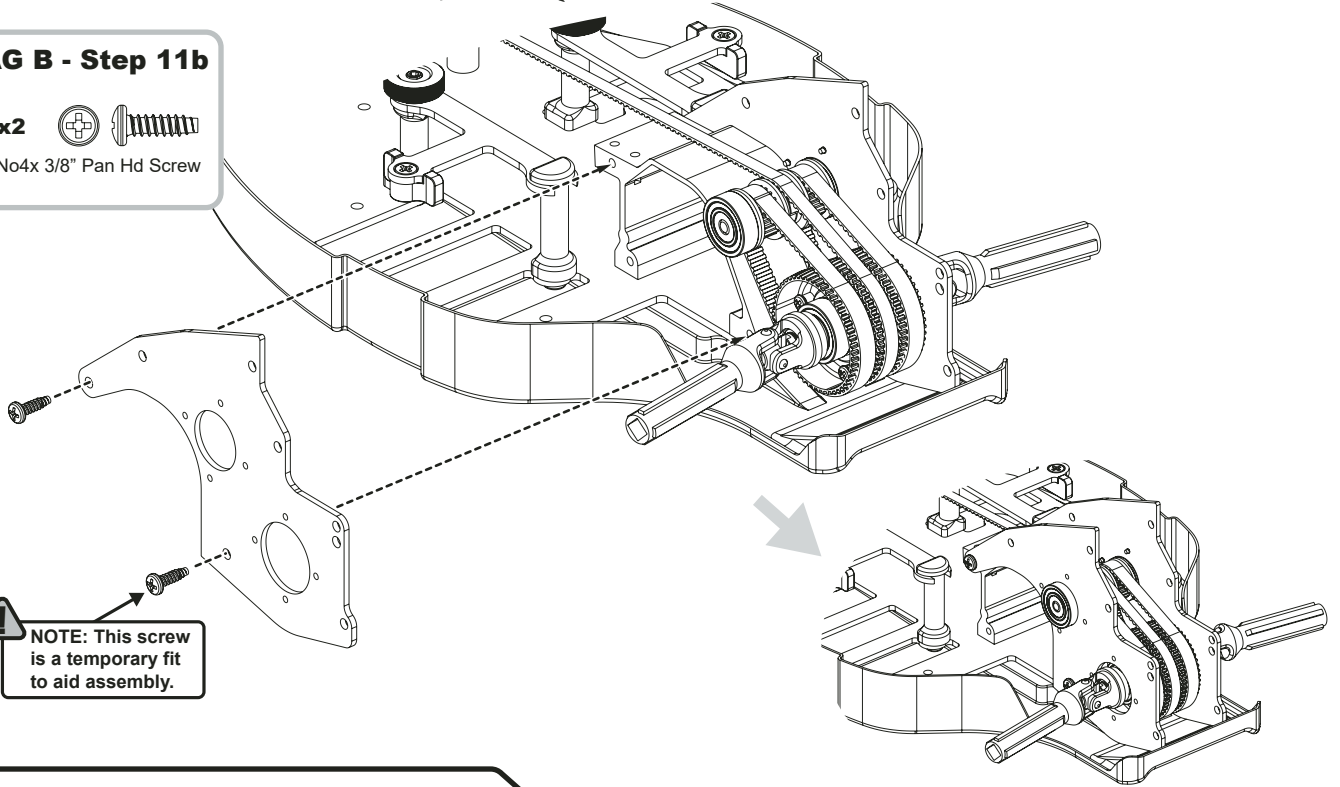
BAG B - Step 11a



BAG B - Step 11b

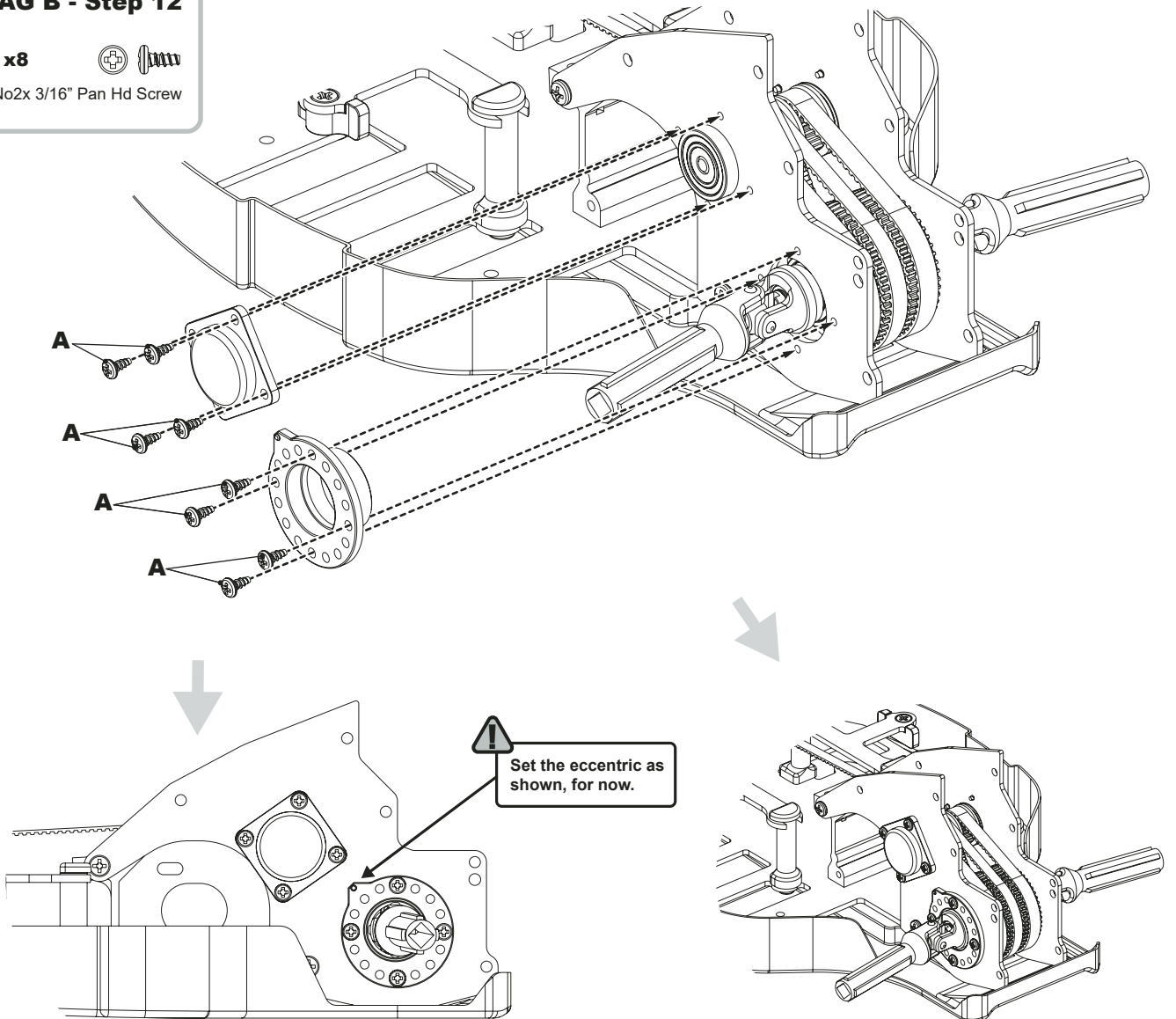
A x2  
No4x 3/8" Pan Hd Screw

 **NOTE:** This screw is a temporary fit to aid assembly.




BAG B - Step 12

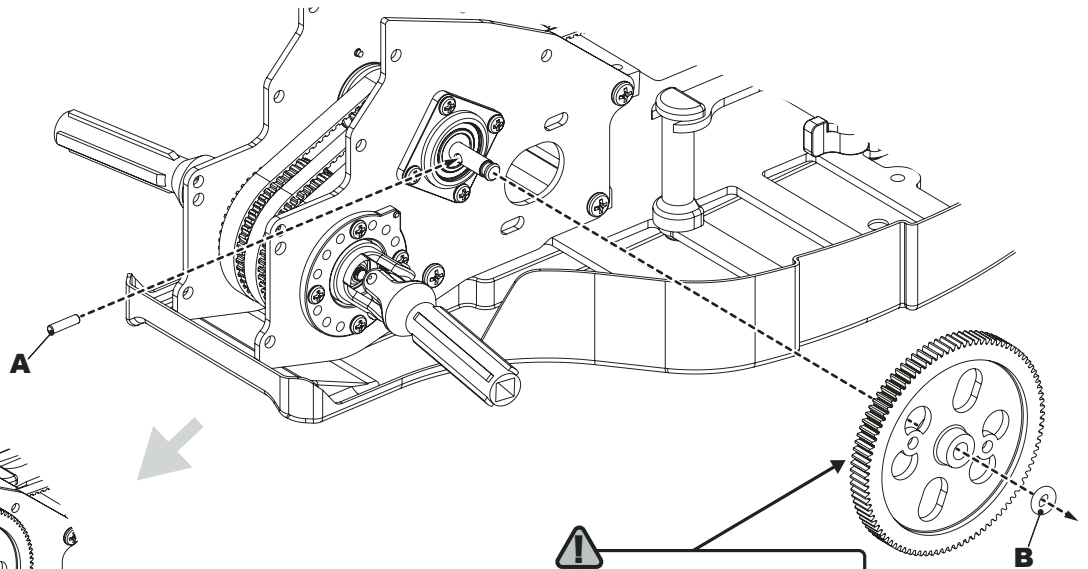
A x8  
No2x 3/16" Pan Hd Screw



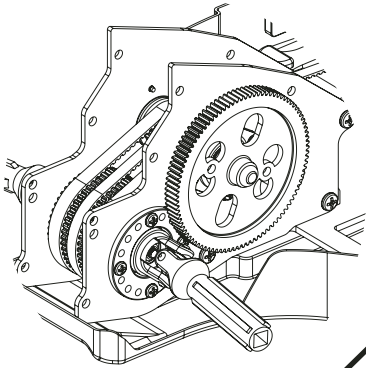
BAG B - Step 13

A x1  $\varnothing 2.0 \times 7.8\text{mm}$ Pin

B x1  'O' Ring - Black



! NOTE: Ensure the slot in the spur gear aligns with pin A.



BAG B - Step 14

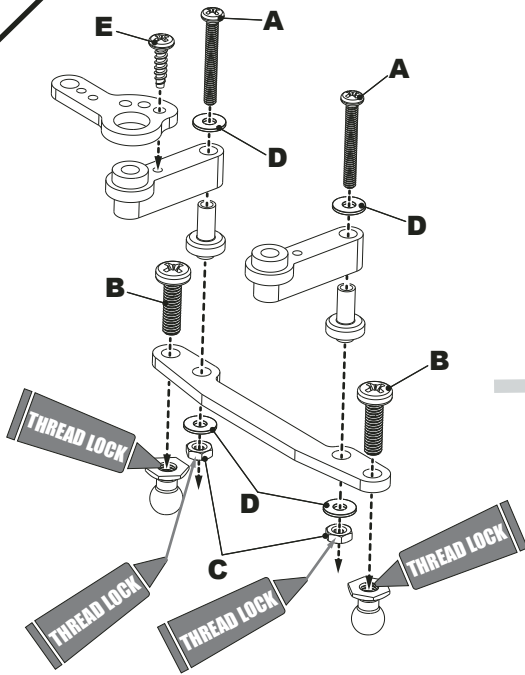
A x2  M2x 16 Pan Hd Screw

B x2  M3x 10 Pan Hd Screw

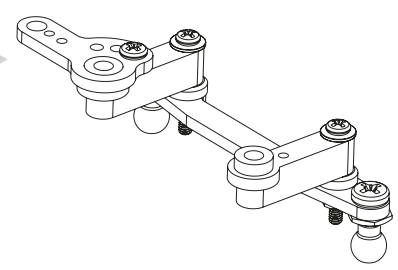
C x2  M2 Nut

D x4  M2 Washer

E x1  No2x 5/16" Pan Hd Screw



! NOTE: Be careful when using threadlock. Use only a small amount on the nuts. It must not get on the brass pivots. Ensure the steering assembly rotates freely.



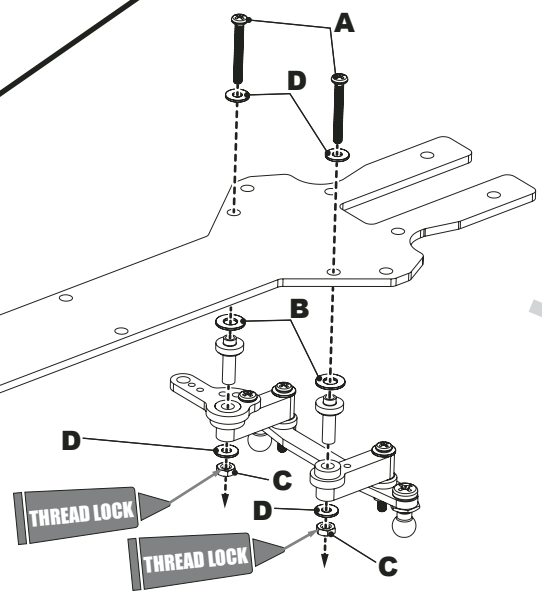
BAG B - Step 15

A x2  M2x 16 Pan Hd Screw

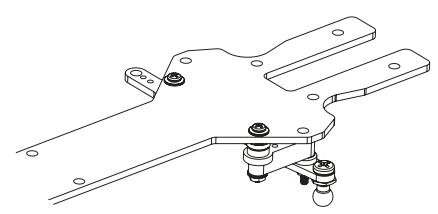
B x2  M3 Washer

C x2  M2 Nut

D x4  M2 Washer

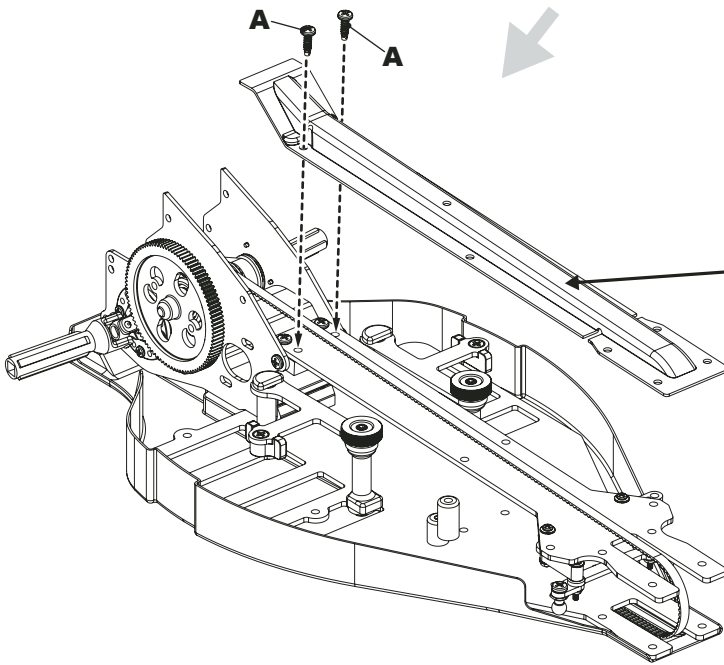
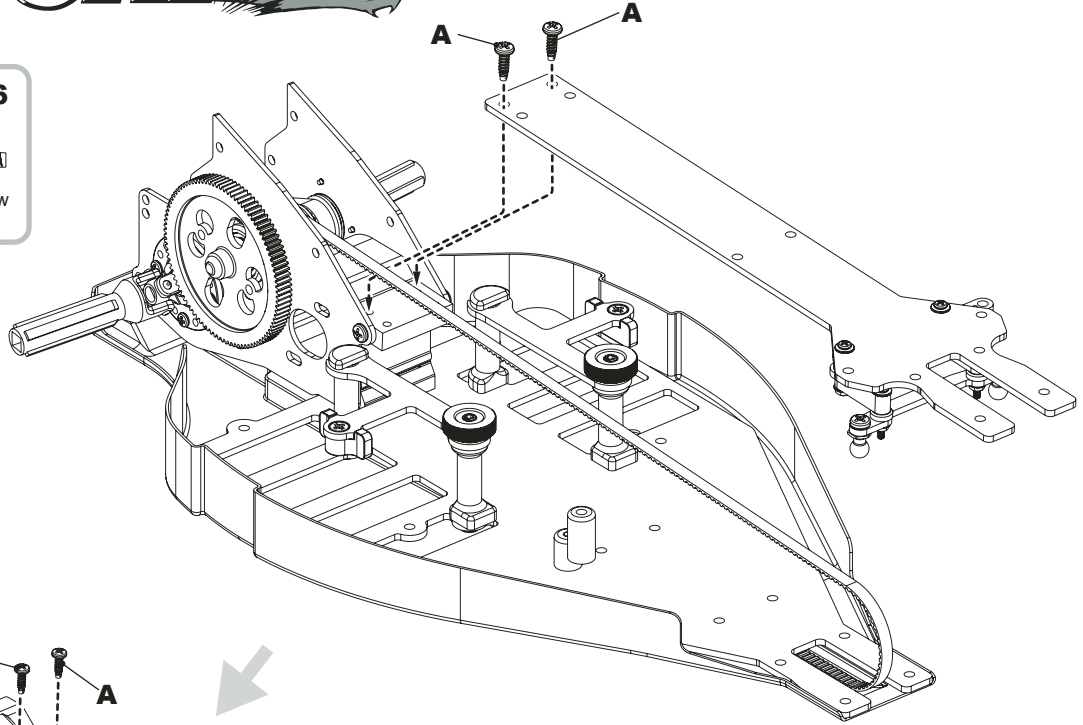


! NOTE: Be careful when using threadlock. Use only a small amount on the nuts. It must not get on the brass pivots. Ensure the steering assembly rotates freely.

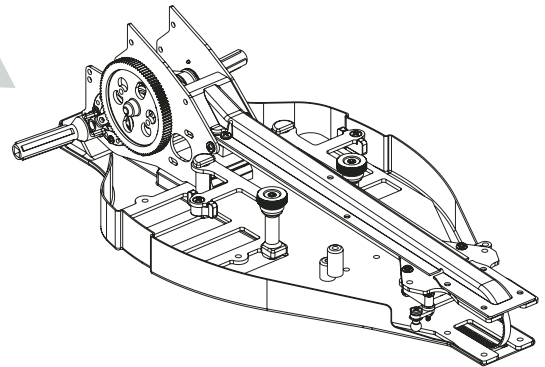


BAG B - Step 16

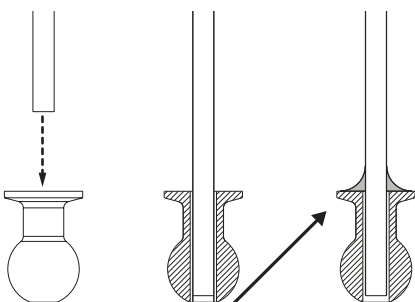
A x4  
No4x 3/8" Pan Hd Screw



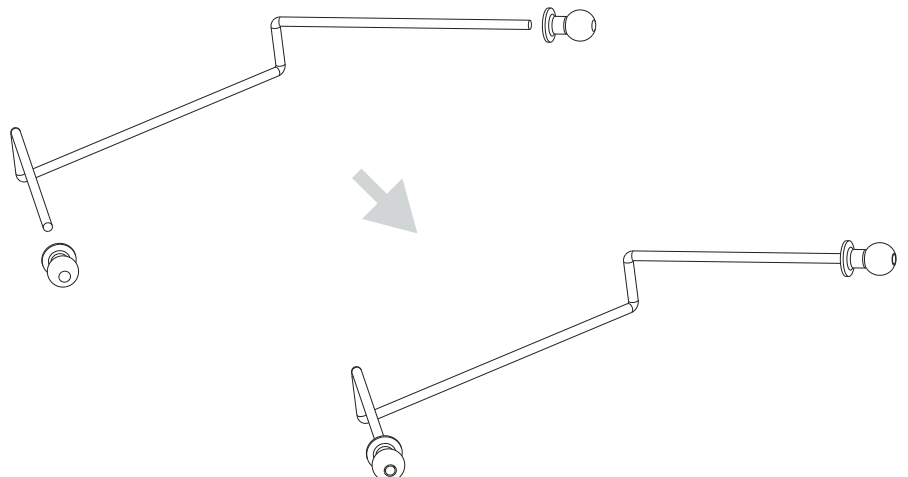
! Cut out the belt cover using the trim lines as a guide. Drill the 3mm holes as referenced by the dimples.



BAG B - Step 17



! Solder the anti-roll bar to the roll bar balls as shown.

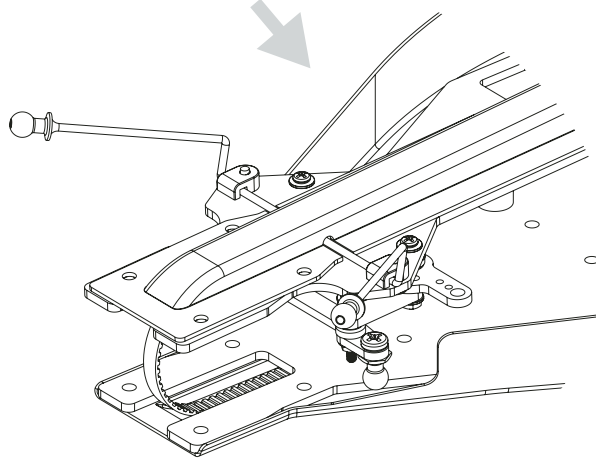
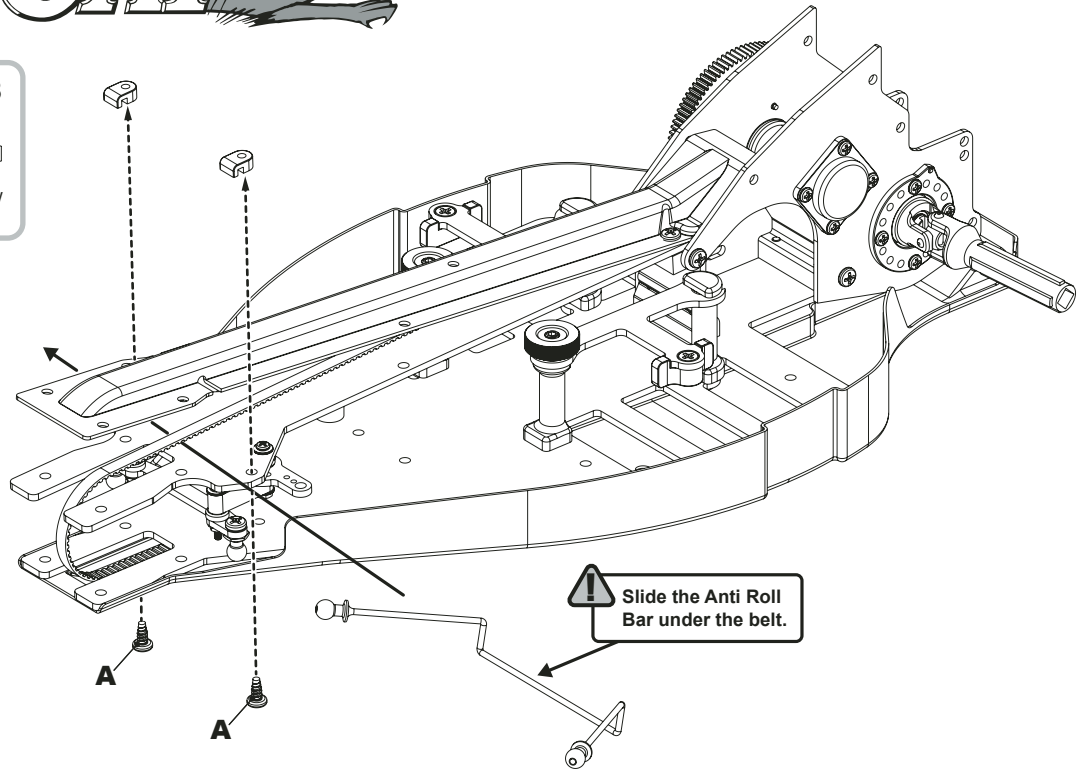


BAG B - Step 18

A x2



No4x 1/4" Pan Hd Screw



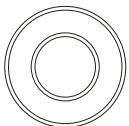
BAG C - Step 19

A x1



M3 Nyloc Nut

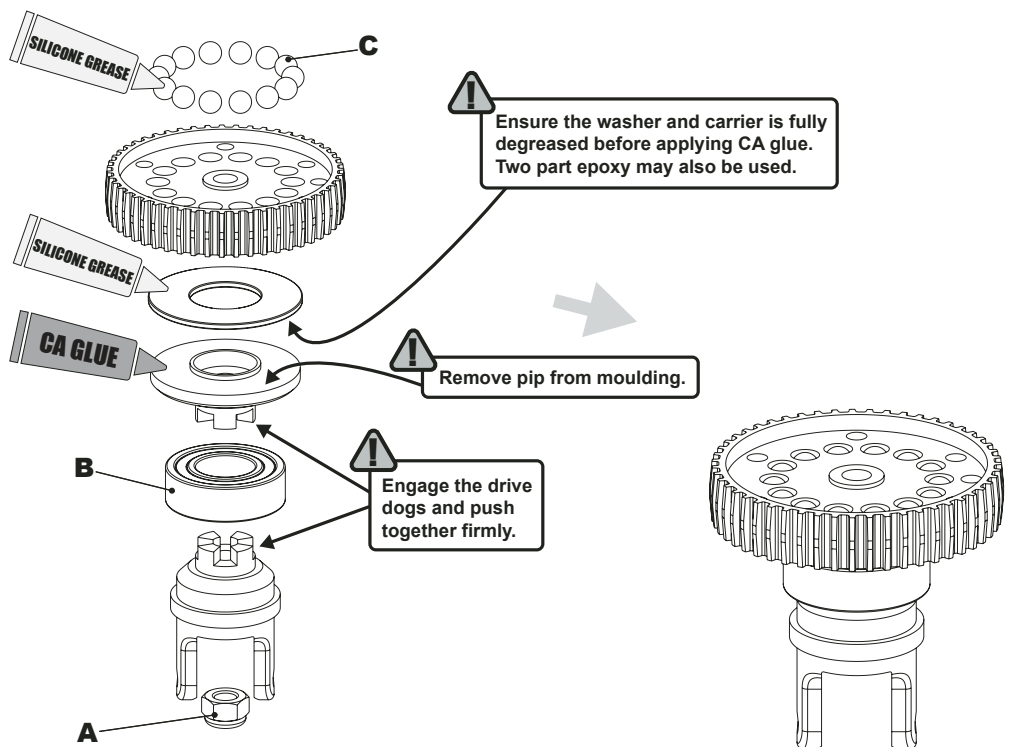
B x1



Ø8 x Ø16 x 5mm Bearing






C x14

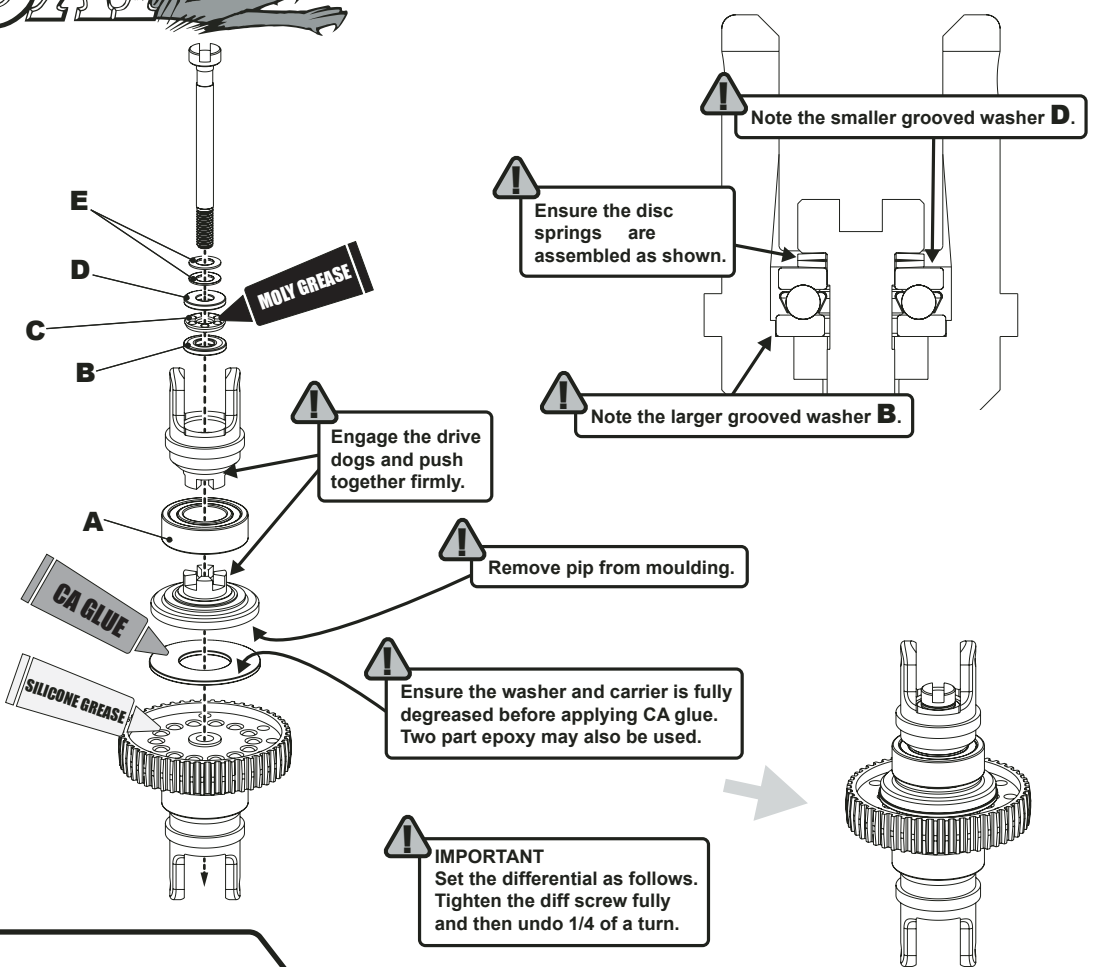
Ø3mm Chrome Steel Diff Ball



PRO-GATE

BAG C - Step 20

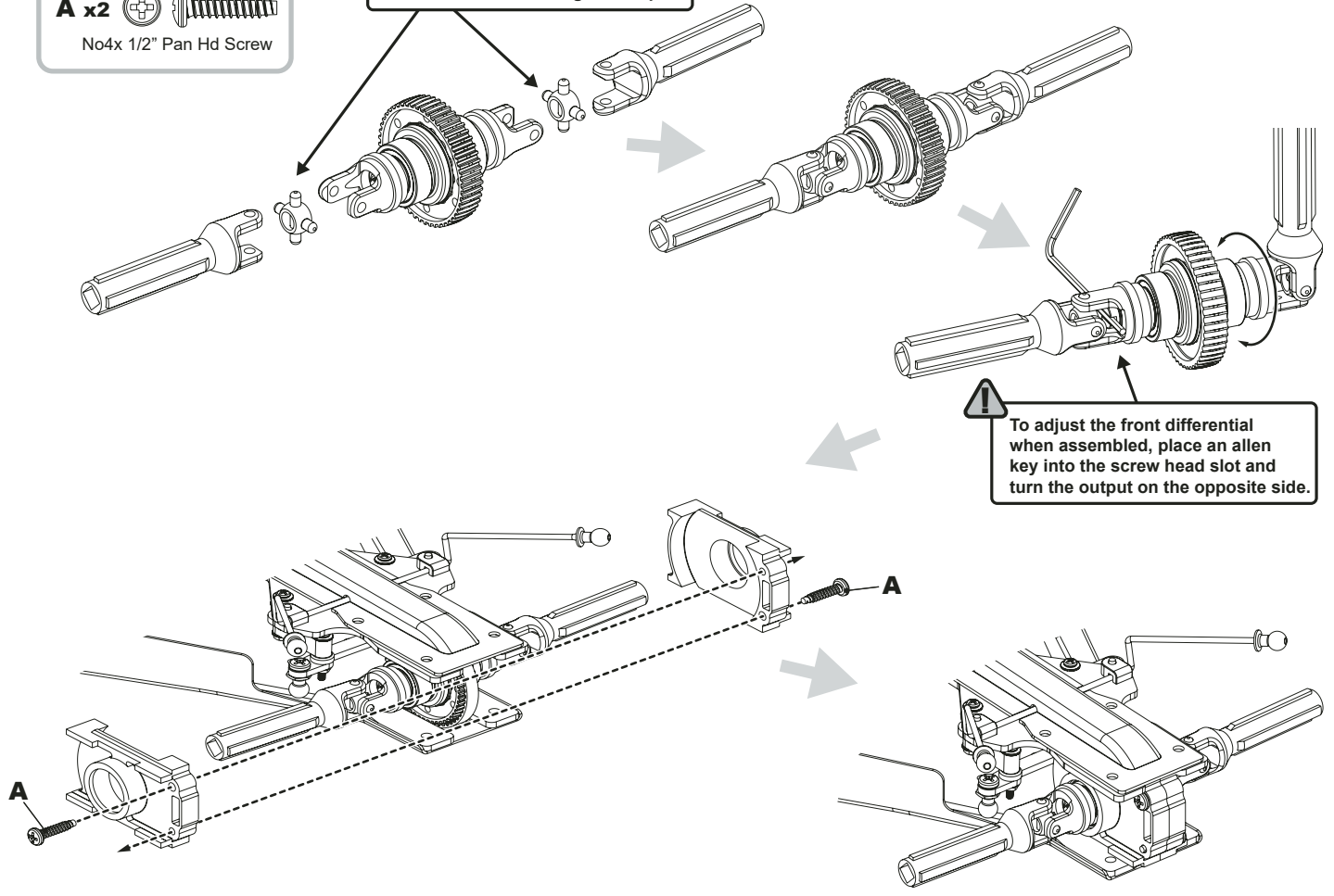
- A x1**  Ø8 x Ø16 x 5mm Bearing
- B x1**  Grooved Thrust Washer (Large)
- C x1**  Thrust Race
- D x1**  Grooved Thrust Washer (Small)
- E x2**  Ø6 x Ø3.2 x Ø0.3mm Disc Spring



BAG C - Step 21


- A x2**  No4x 1/2" Pan Hd Screw

! Assemble as before. Page 06 Step 10




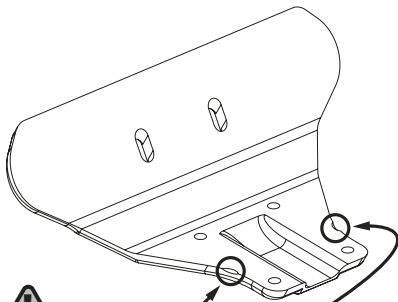
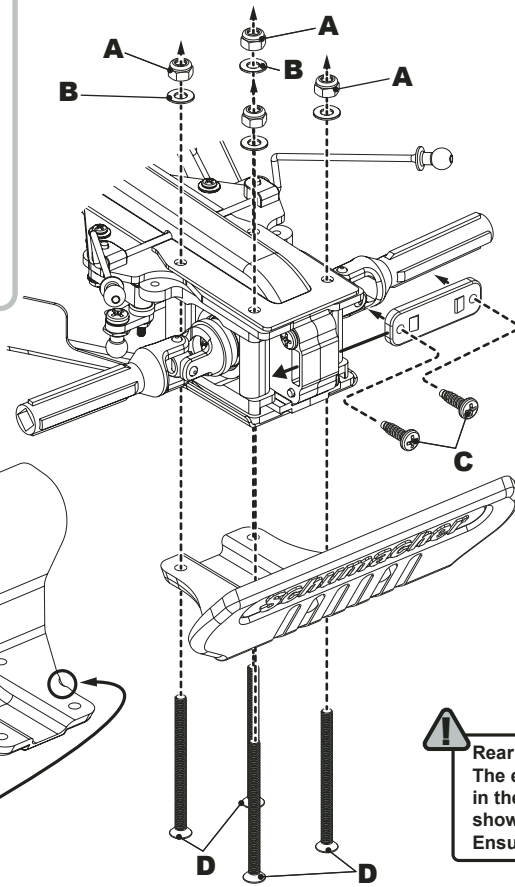
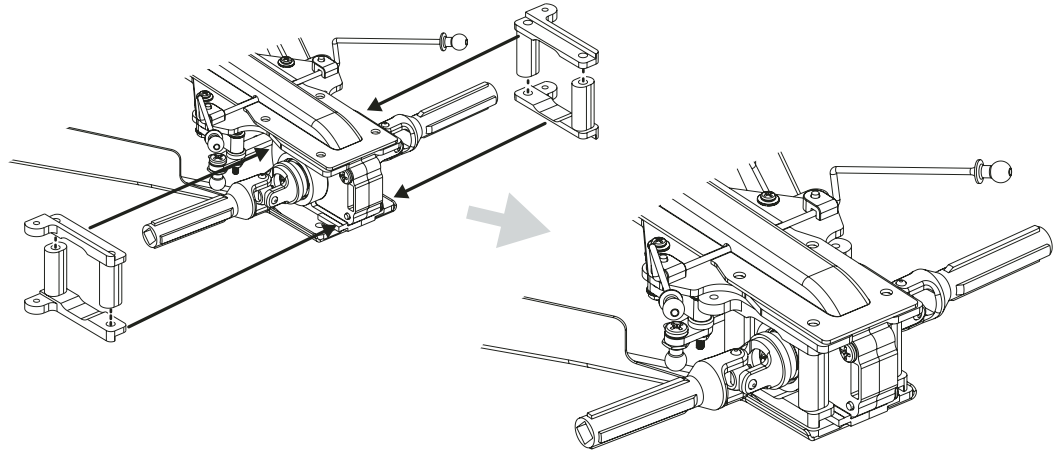
BAG C - Step 22

A x4  M3 Nyloc Nut

B x4  M3 Washer

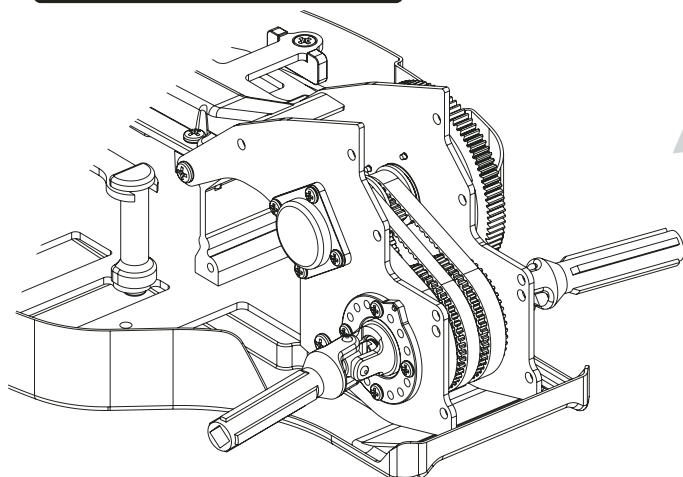
C x2  No4x 3/8" Pan Hd Screw

D x4  M3x 40 Csk Hd Screw



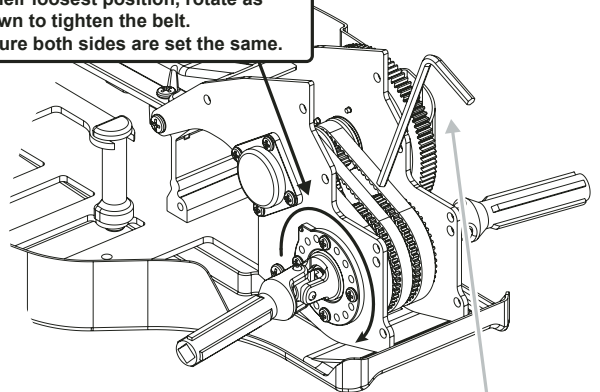
! Before fitting, trim the bumper as show.

! **IMPORTANT.**
Always set the tension of the two rear belts before the longer front belt.



! Leave loose while adjusting front belt tension.

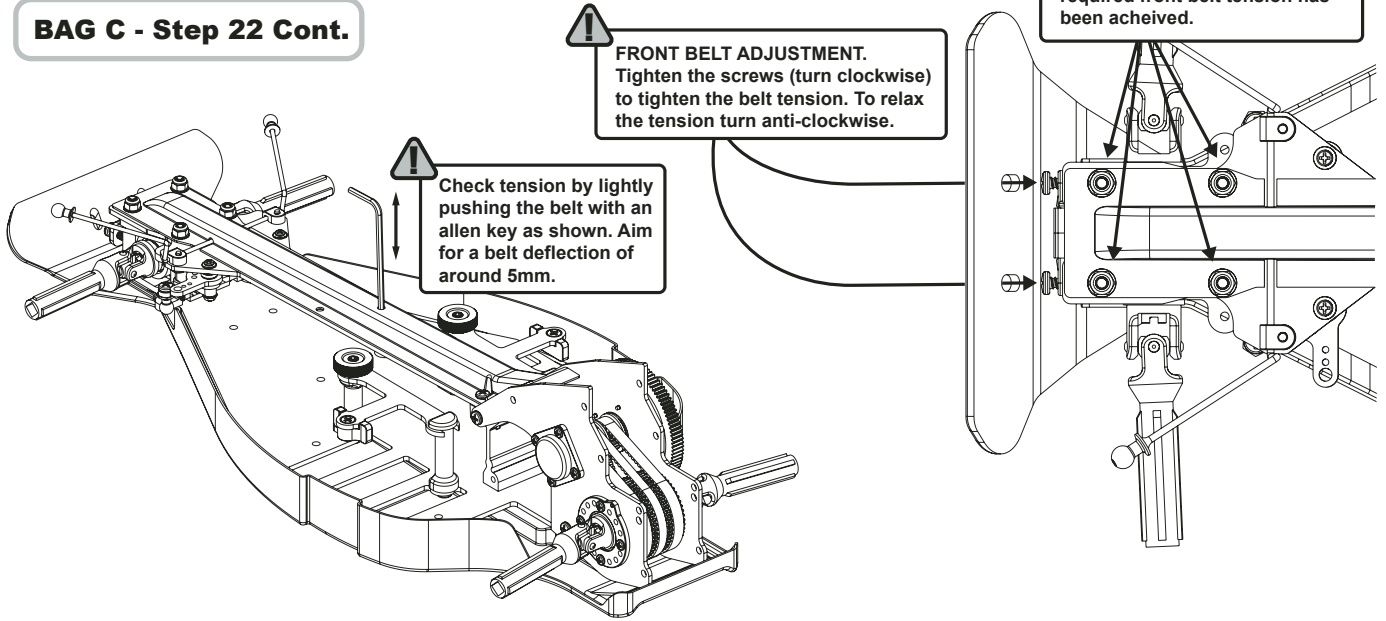
! **Rear Belt Tension Adjustment.**
The eccentrics are already assembled in their loosest position, rotate as shown to tighten the belt. Ensure both sides are set the same.



! **BELT TENSIONS**
As a starting point, aim for a 2-3mm deflection as you gently push the allen key. Push at the centre of the belt run (as pictured).

PRO-GATE

BAG C - Step 22 Cont.

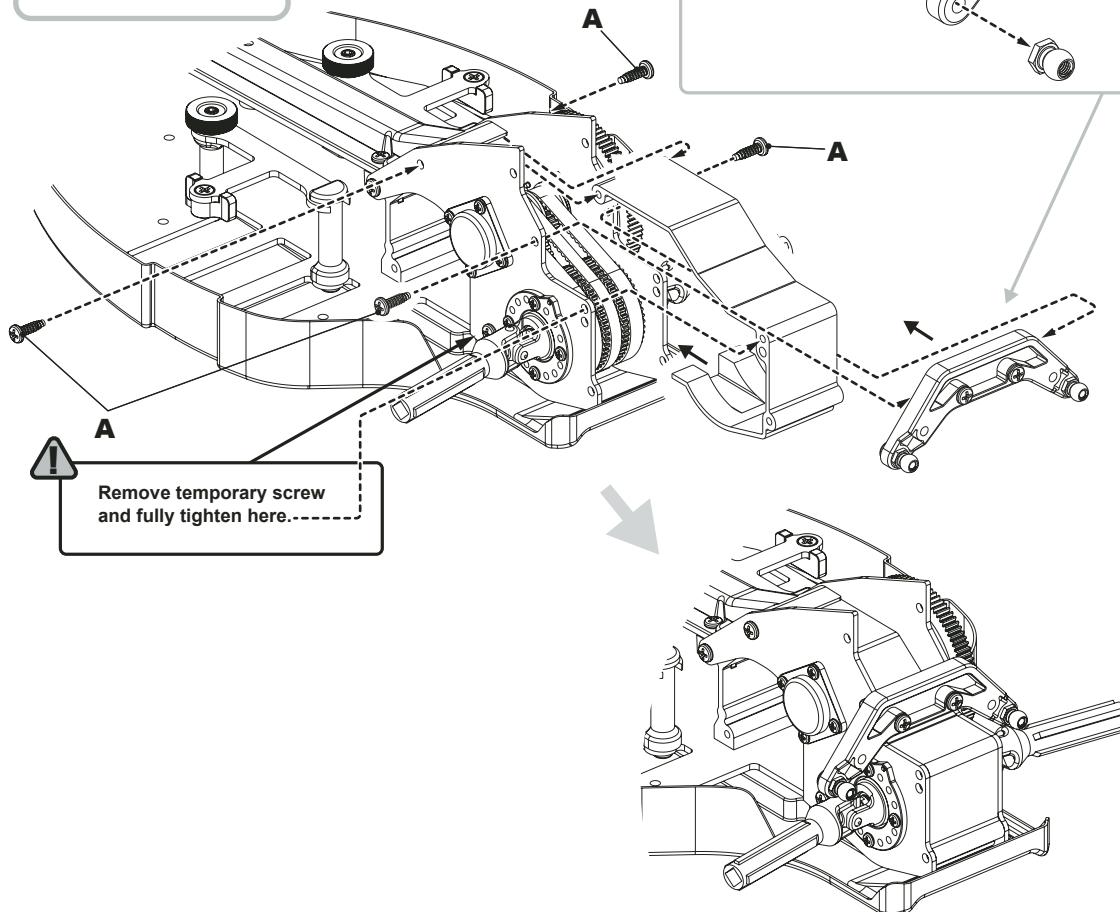
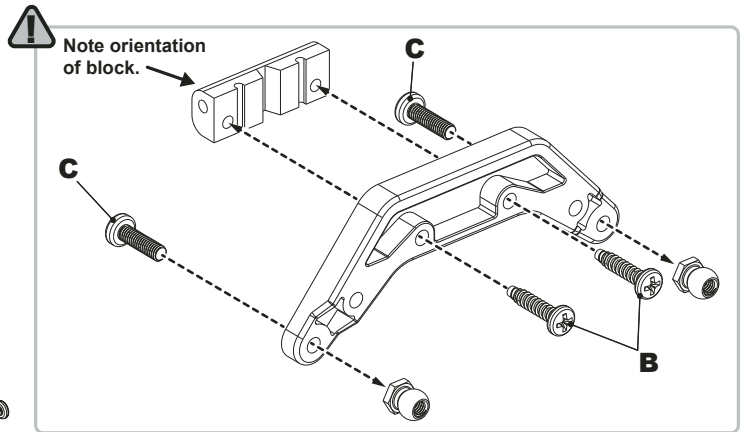


BAG C - Step 23

A x4 
No4 x 3/8" Pan Hd Screw

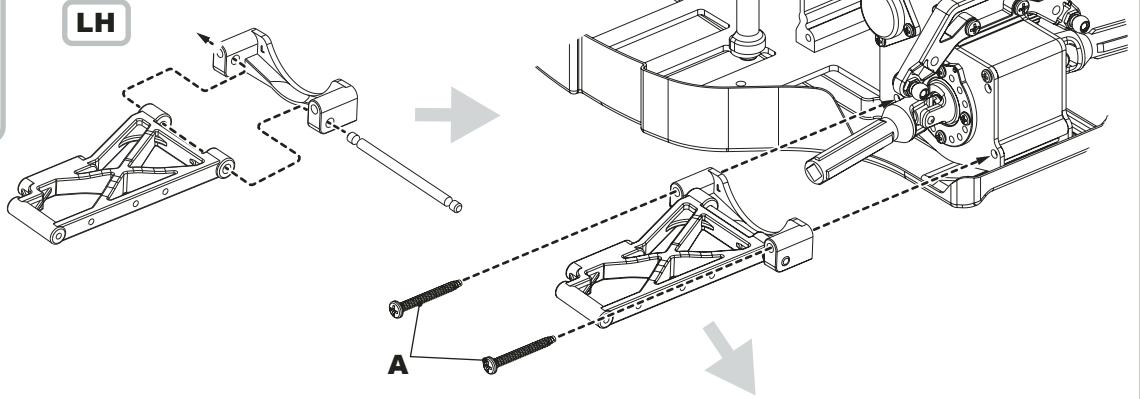
B x2 
No4 x 1/2" Pan Hd Screw

C x2 
M3 x 10 Pan Hd Screw



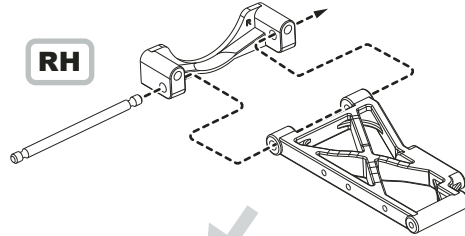
BAG C - Step 24


A x2 

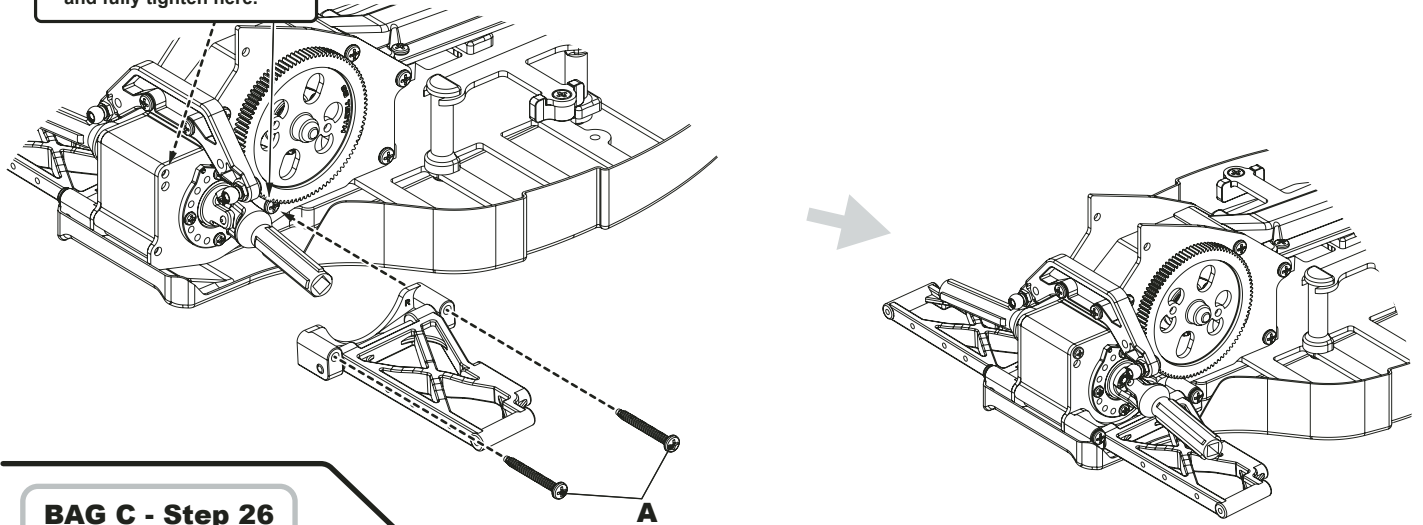


BAG C - Step 25

A x2 

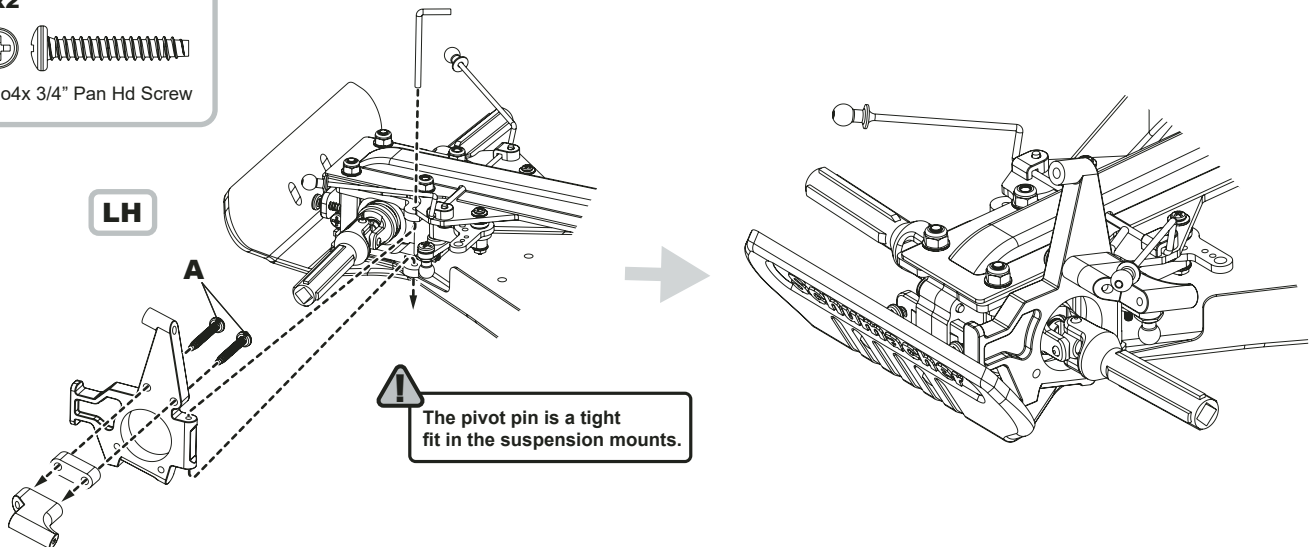


 Remove temporary screw and fully tighten here.



BAG C - Step 26

A x2



BAG C - Step 27

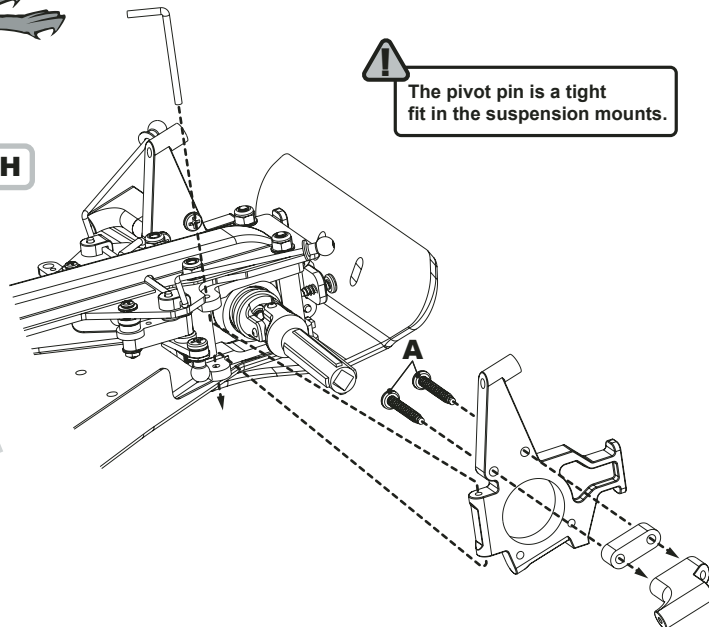
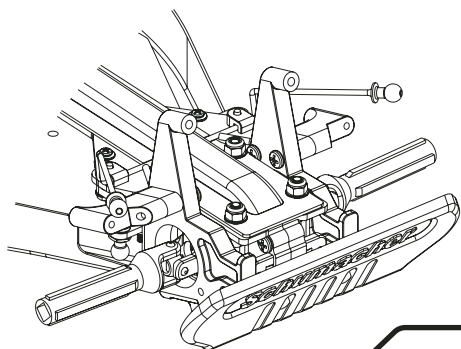
A x2



No4x 3/4" Pan Hd Screw

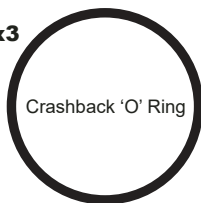
RH

! The pivot pin is a tight fit in the suspension mounts.



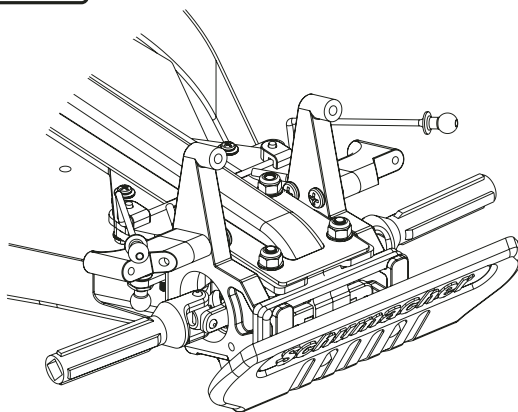
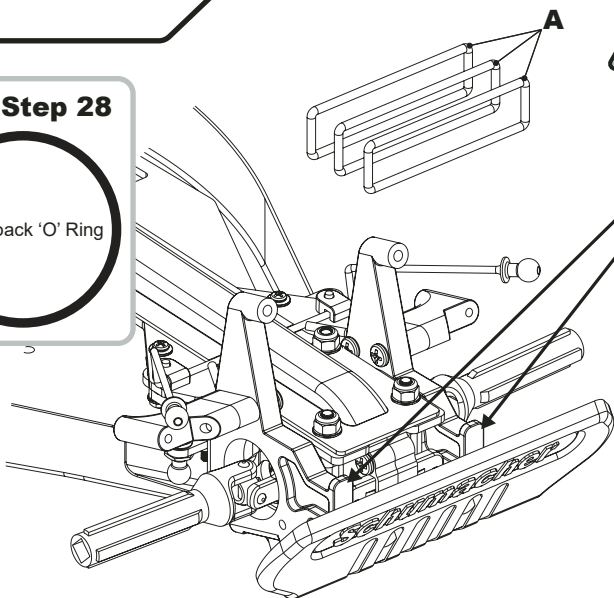
BAG D - Step 28

A x3



Crashback 'O' Ring

! Stretch bands over the two lugs.



BAG D - Step 29

A x2



No4x 3/8" Pan Hd Screw

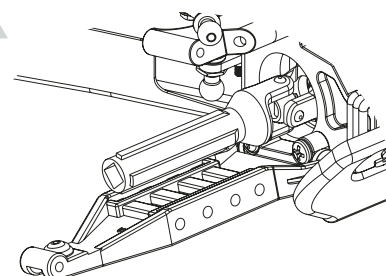
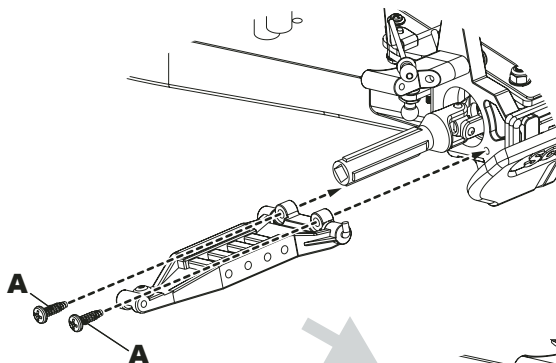
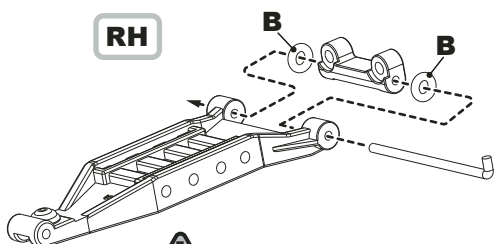
B x2



'O' Ring - Black

RH

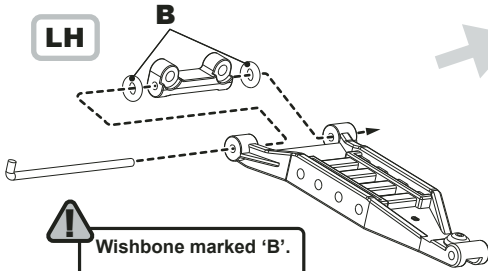
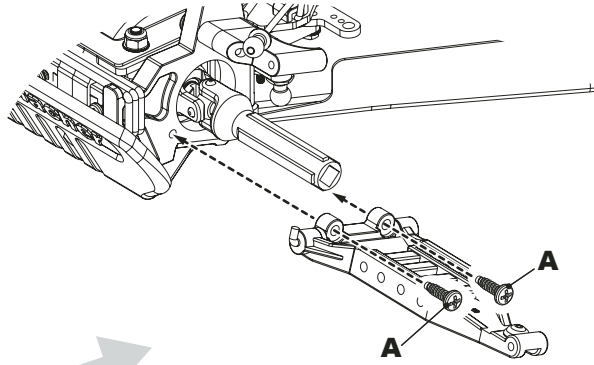
! Wishbone marked 'A'.
The pivot pin is a tight fit in the pivot block.



BAG D - Step 30

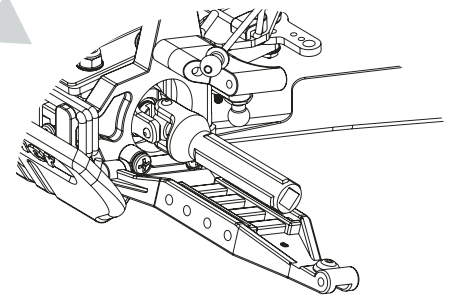
A x2 
No4x 3/8" Pan Hd Screw

B x2 
'O' Ring - Black



LH

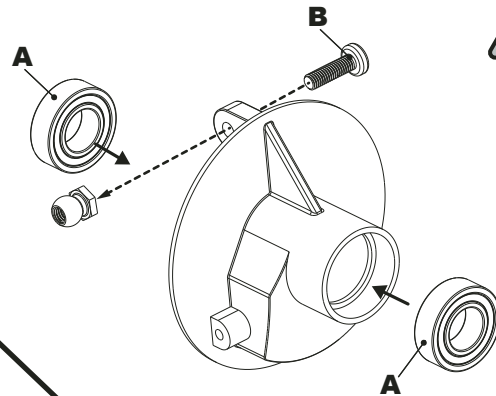
! Wishbone marked 'B'.
The pivot pin is a tight fit in the pivot block.



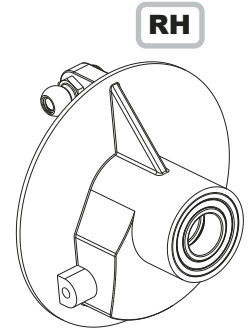
BAG D - Step 31

A x1 
M3x 10 Pan Hd Screw


B x2 
Ø8 x Ø16 x 5mm Bearing

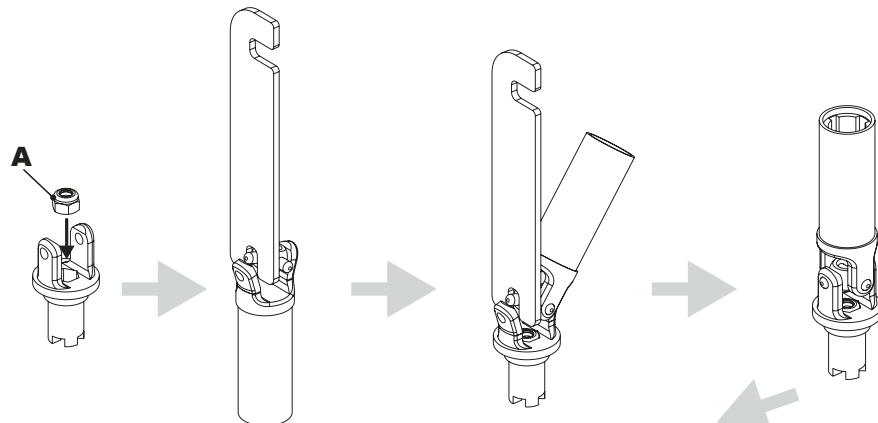


! The bearings are a tight fit. Ensure they are pressed in fully.



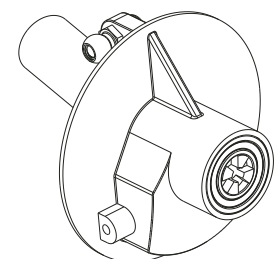
BAG D - Step 32

A x1 
M3 Nyloc Nut



RH

! **IMPORTANT**
The sequence of drawings above shows the assembly procedure of all universal joints, driveshafts, axles and diff outputs. Warming the plastic parts will help make the assembly easier.



BAG D - Step 33

A x2

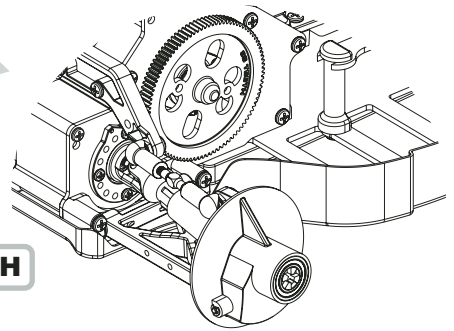
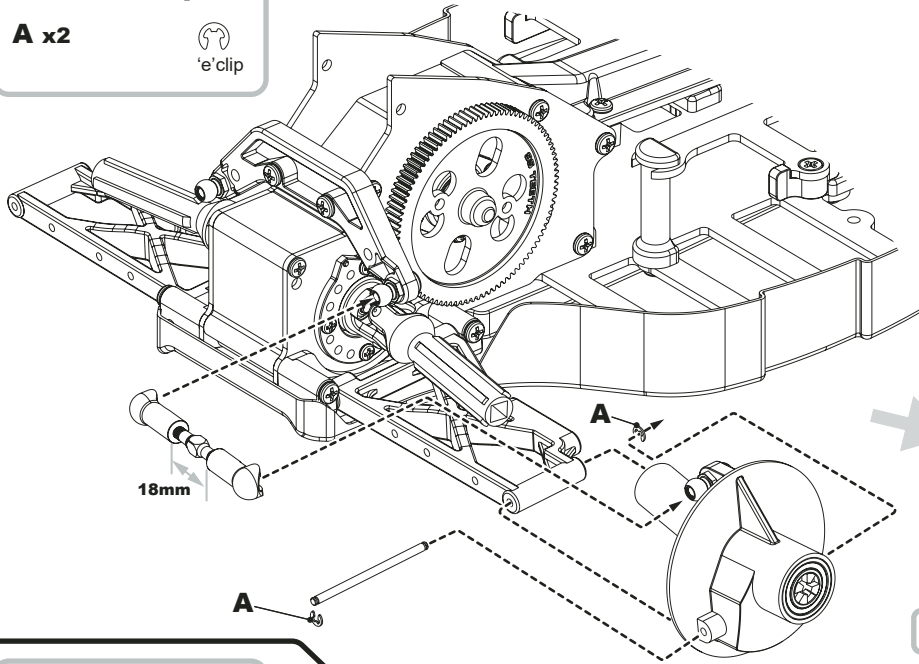


! Note the shape of the turnbuckle. This side of the turnbuckle is the left hand thread.

LH Thread **RH Thread**

LH Thread Longer

Shorter **RH Thread**



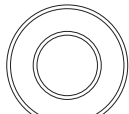
BAG D - Step 34

A x1



M3x 10 Pan Hd Screw

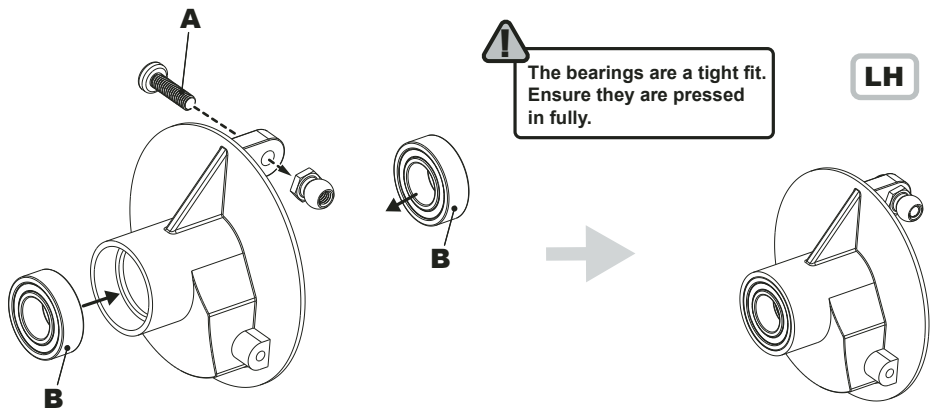
B x2



Ø8 x Ø16 x 5mm Bearing

! The bearings are a tight fit. Ensure they are pressed in fully.

LH

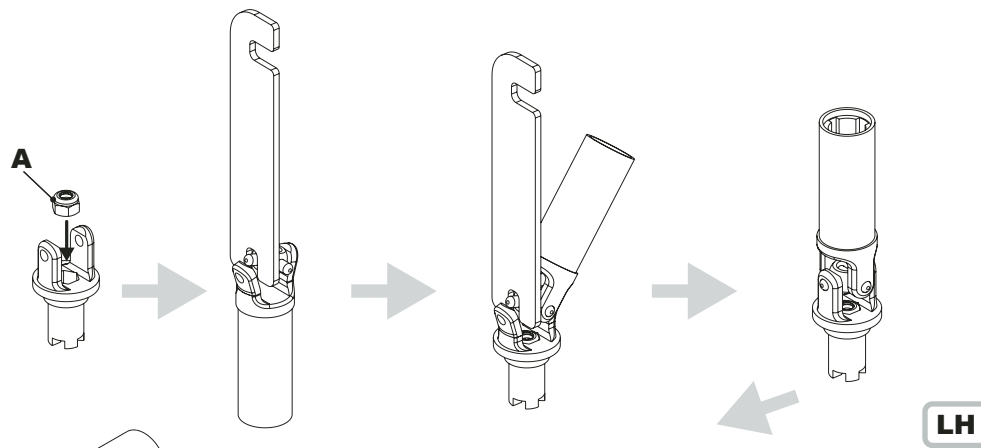


BAG D - Step 35

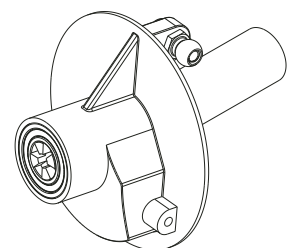
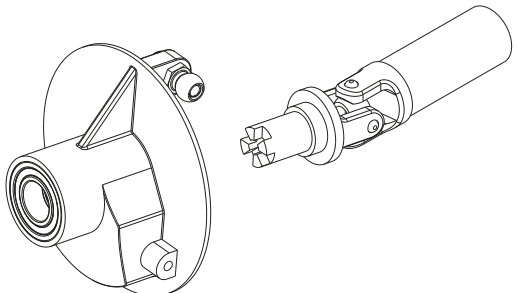
A x1



M3 Nyloc Nut



! **IMPORTANT**
The sequence of drawings above shows the assembly procedure of all universal joints, driveshafts, axles and diff outputs. Warming the plastic parts will help make the assembly easier.

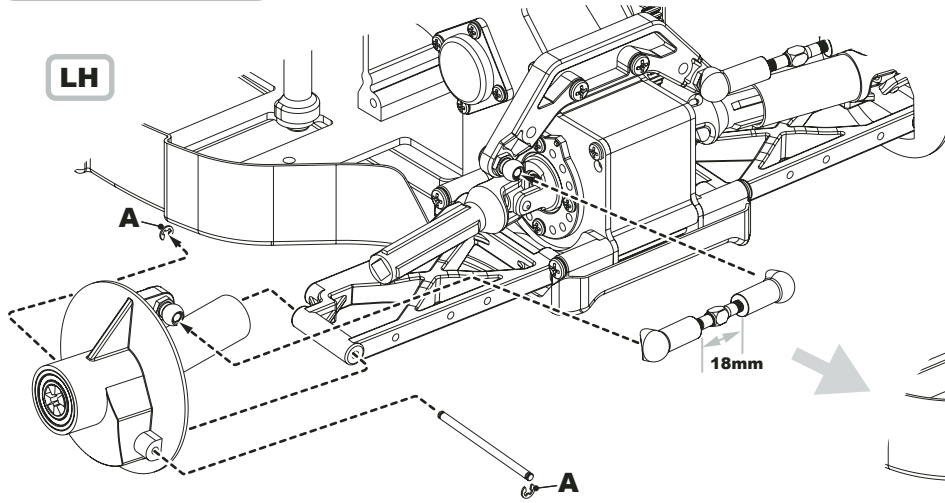


BAG D - Step 36

A x2



LH



Note the shape of the turnbuckle. This side of the turnbuckle is the left hand thread.

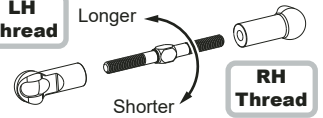


LH Thread

RH Thread

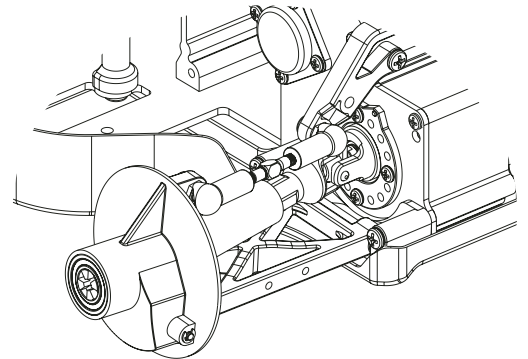
LH Thread

Longer



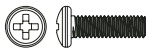
Shorter

RH Thread



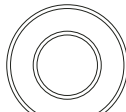
BAG E - Step 37

A x3



M3x 10 Pan Hd Screw

B x2

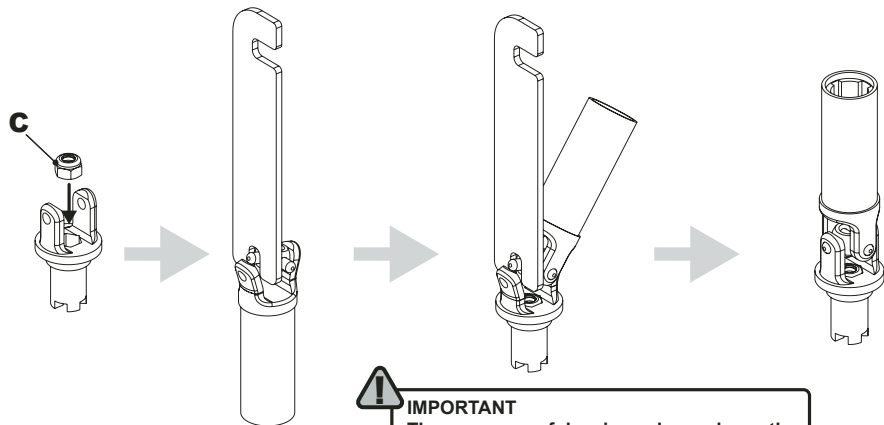


Ø8 x Ø16 x 5mm Bearing

C x1

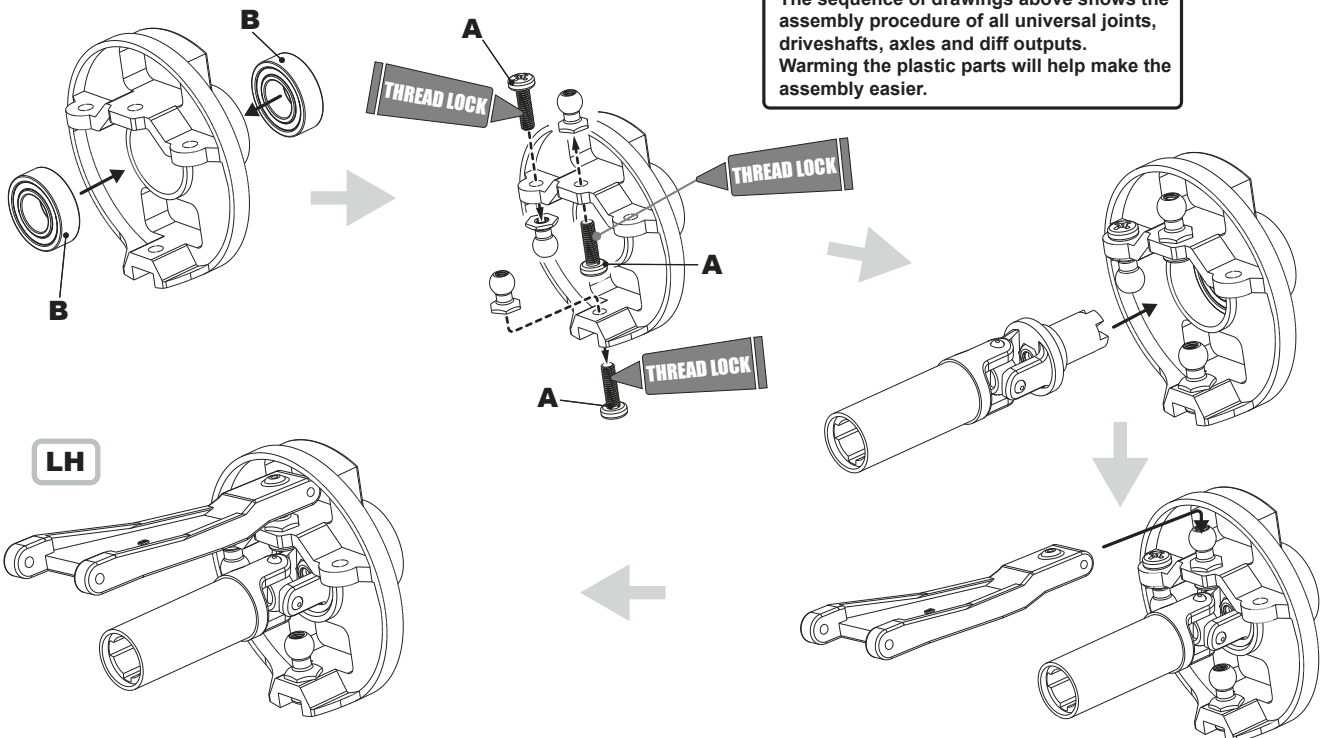


M3 Nyloc Nut



IMPORTANT

The sequence of drawings above shows the assembly procedure of all universal joints, driveshafts, axles and diff outputs. Warming the plastic parts will help make the assembly easier.



LH

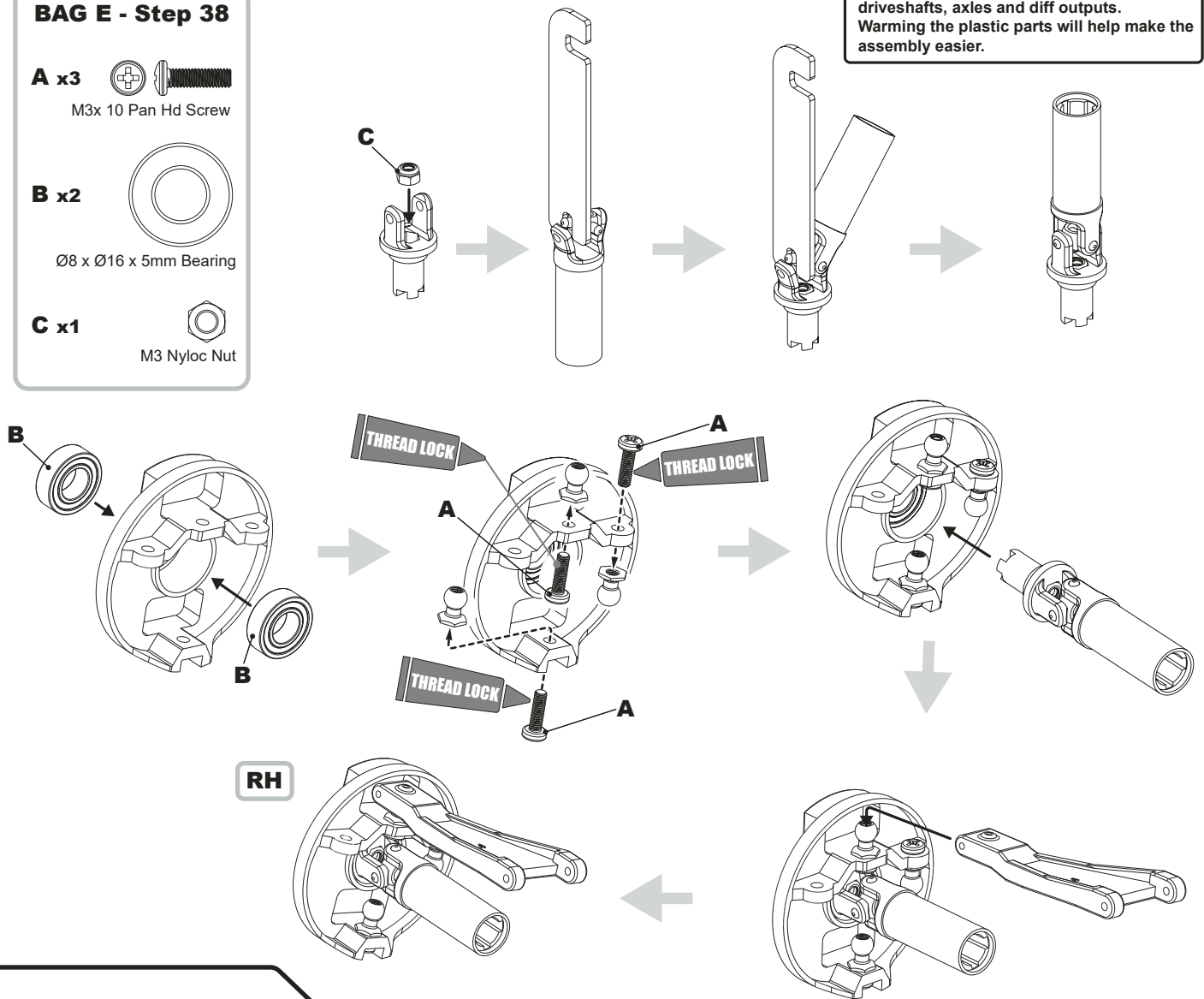
BAG E - Step 38

A x3 
M3x 10 Pan Hd Screw

B x2 
Ø8 x Ø16 x 5mm Bearing

C x1 
M3 Nyloc Nut

! **IMPORTANT**
The sequence of drawings below shows the assembly procedure of all universal joints, driveshafts, axles and diff outputs. Warming the plastic parts will help make the assembly easier.

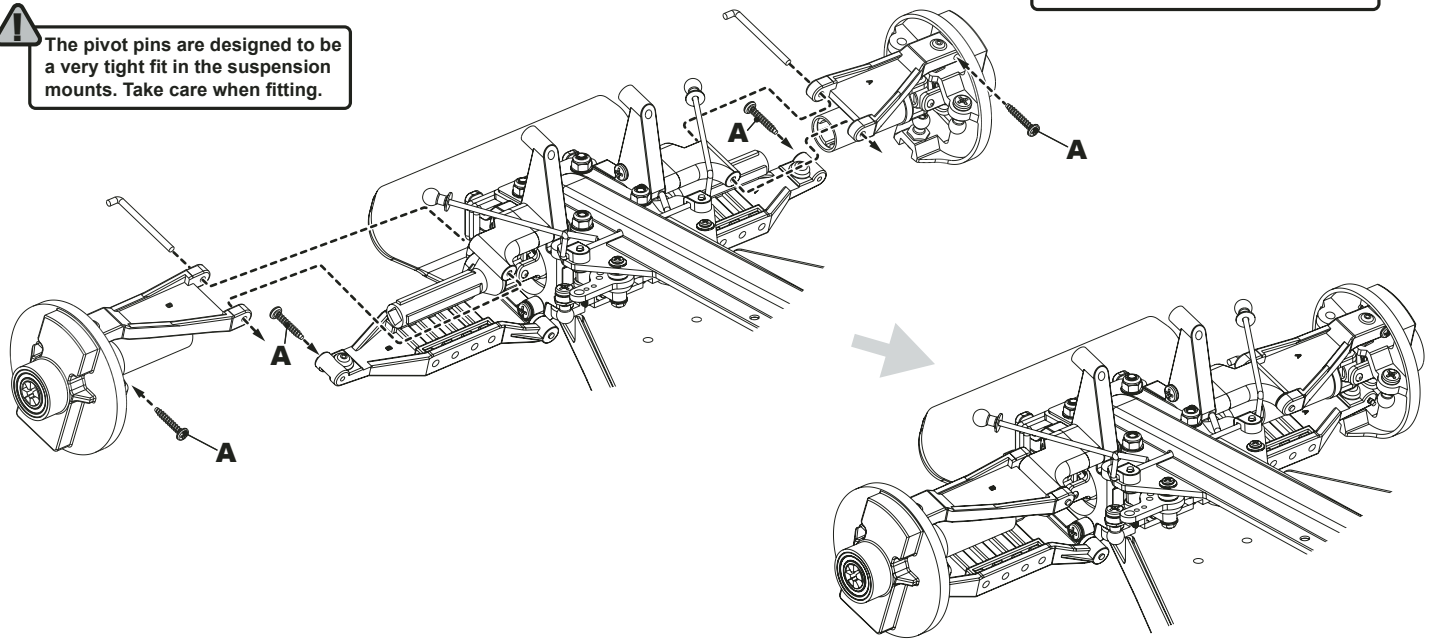


BAG E - Step 39

A x4 
No2 x 1/2" Pan Hd Screw

! The pivot pins are designed to be a very tight fit in the suspension mounts. Take care when fitting.

! Gently tighten screws **A**, until the screw head is flush with wishbones.



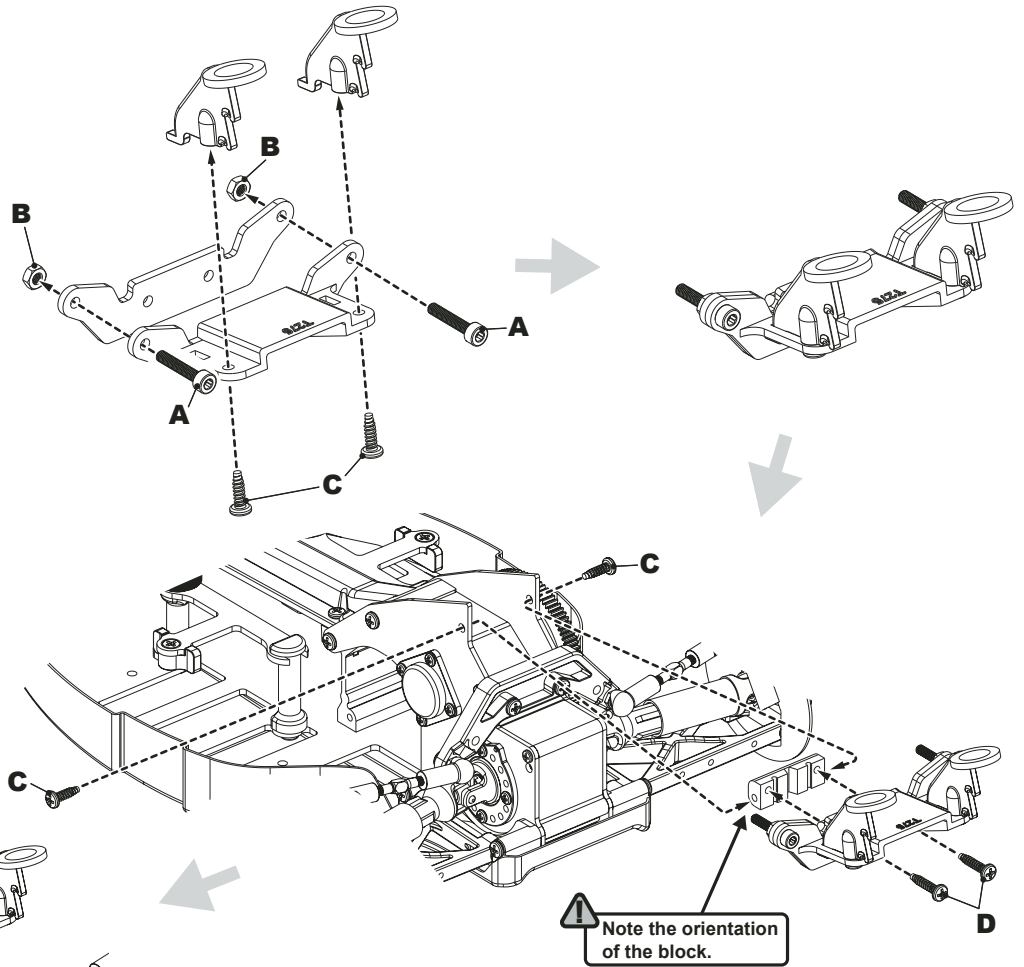
BAG E - Step 40


A x2 
M3x 16 Cap Hd Screw


B x2 
M3 Nut

C x4 
No4 x 3/8" Pan Hd Screw

D x2 
No4 x 1/2" Pan Hd Screw



 Make two shocks the same.


 Note which way round the circlip fits. Rounded edge in first. Do not over squeeze it.

BAG E - Step 41

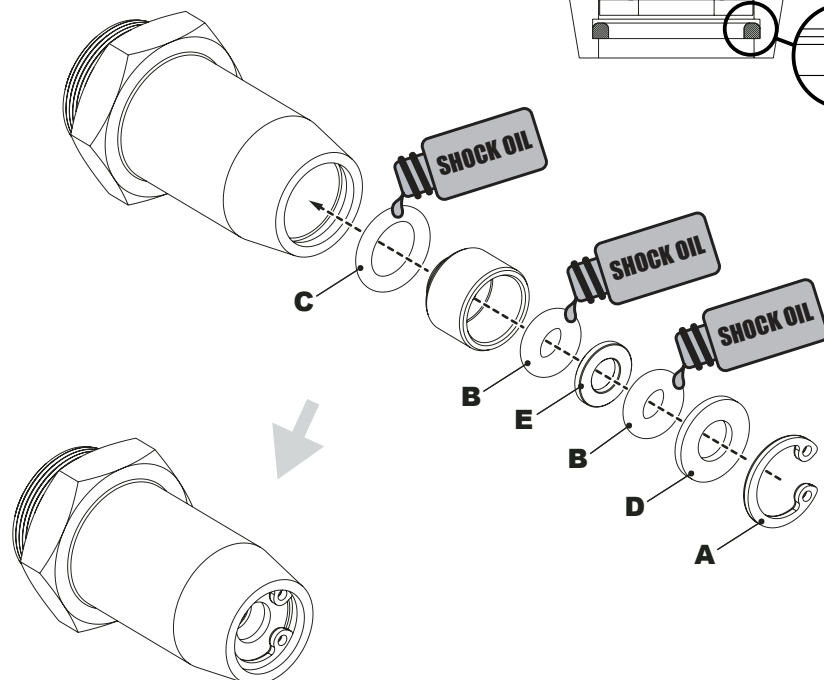
A x2 
Large Circlip

B x4 
'O' Ring - Red

C x2 
'O' Ring - Red

D x2 
8mm OD Plastic Washer

E x2 
M3 x 0.75 Black Alloy Washer

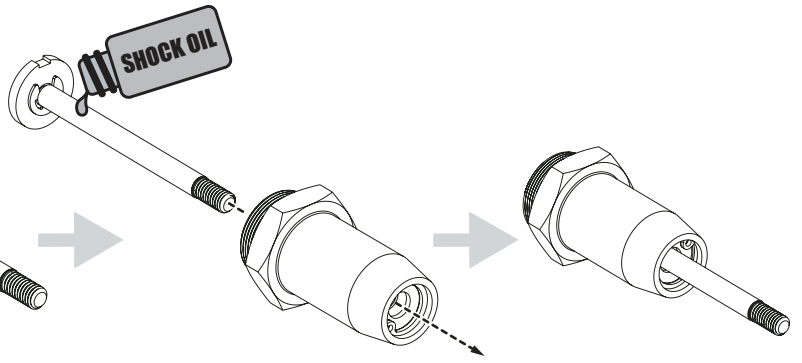
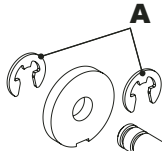


BAG E - Step 42

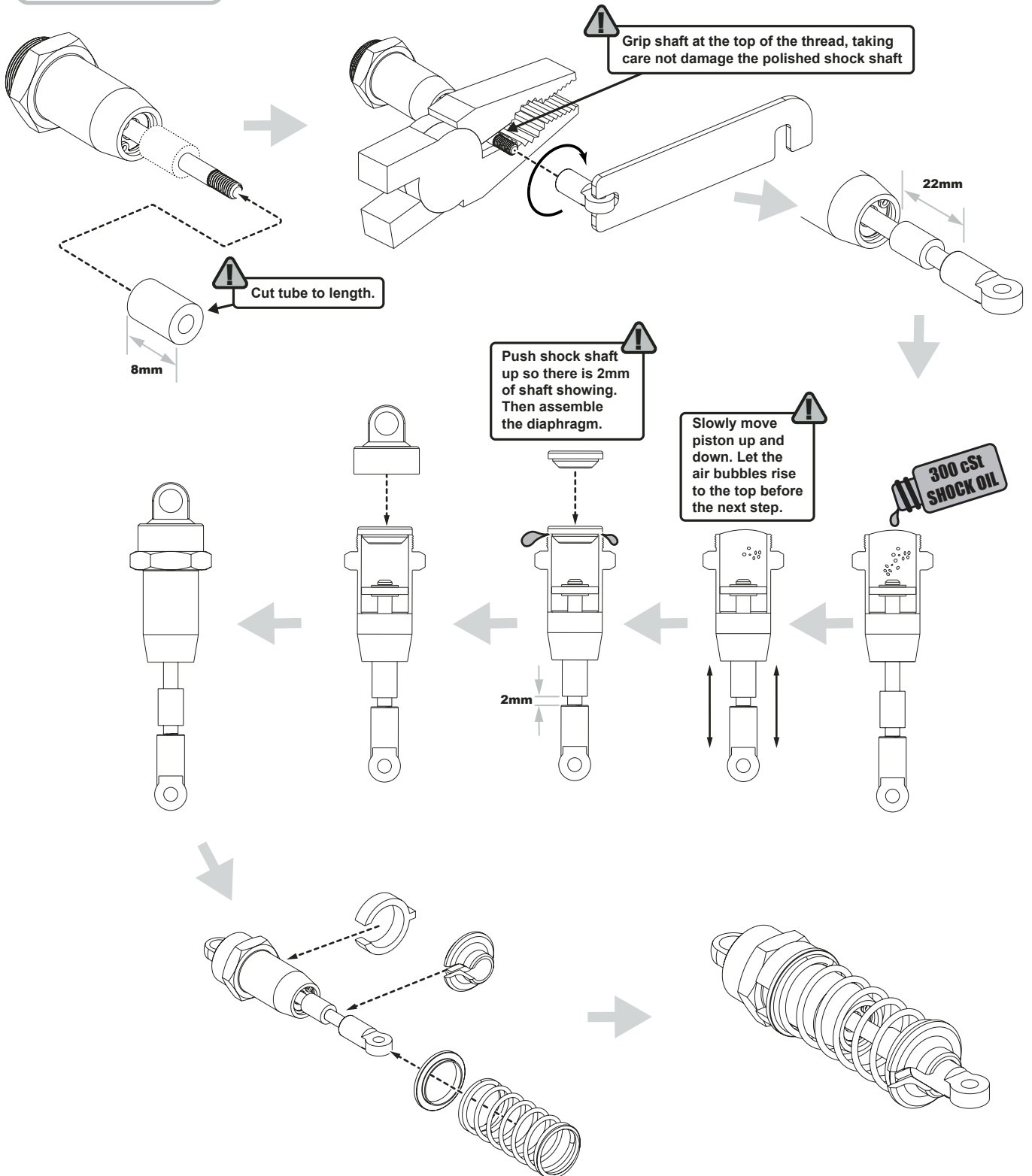
A x2



'e'clip



BAG E - Step 43



BAG E - Step 44

A x2



B x4



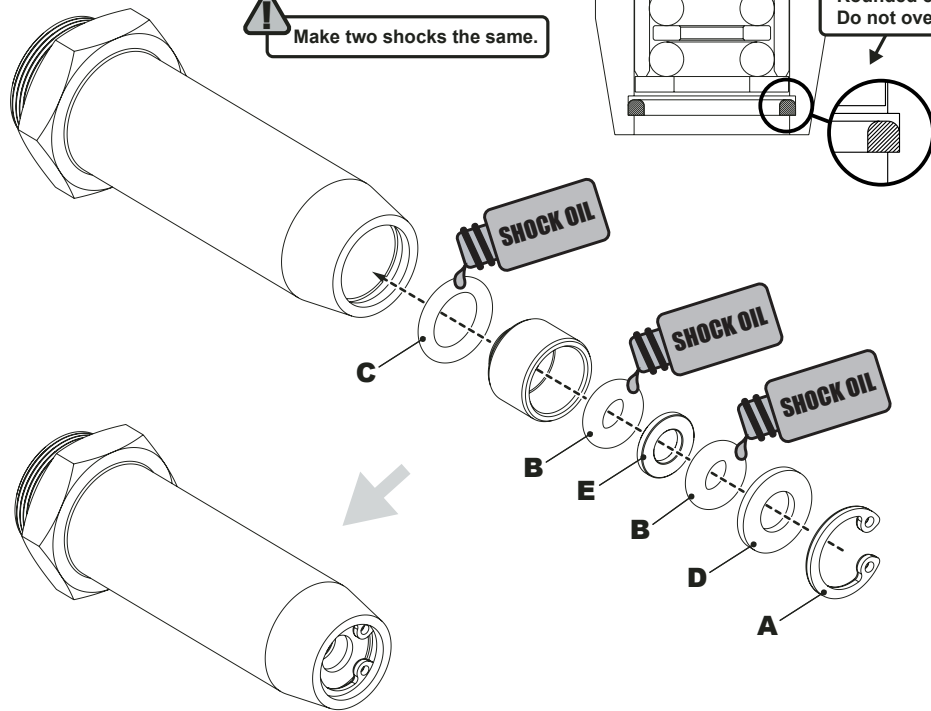
C x2



D x2

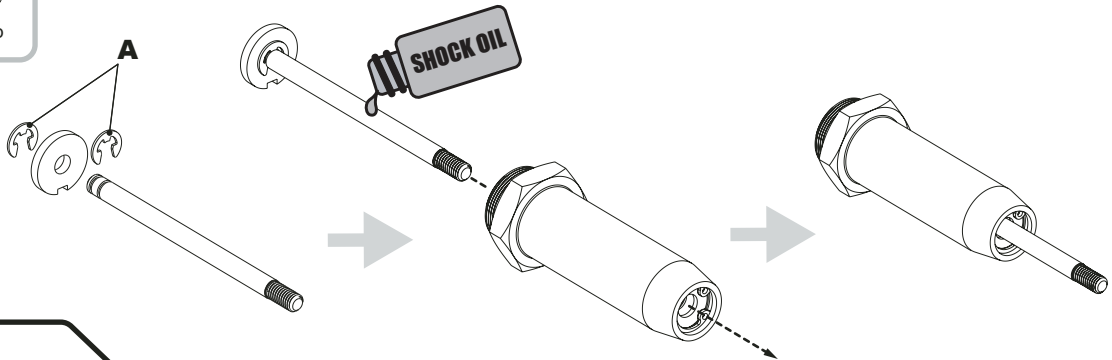


E x2

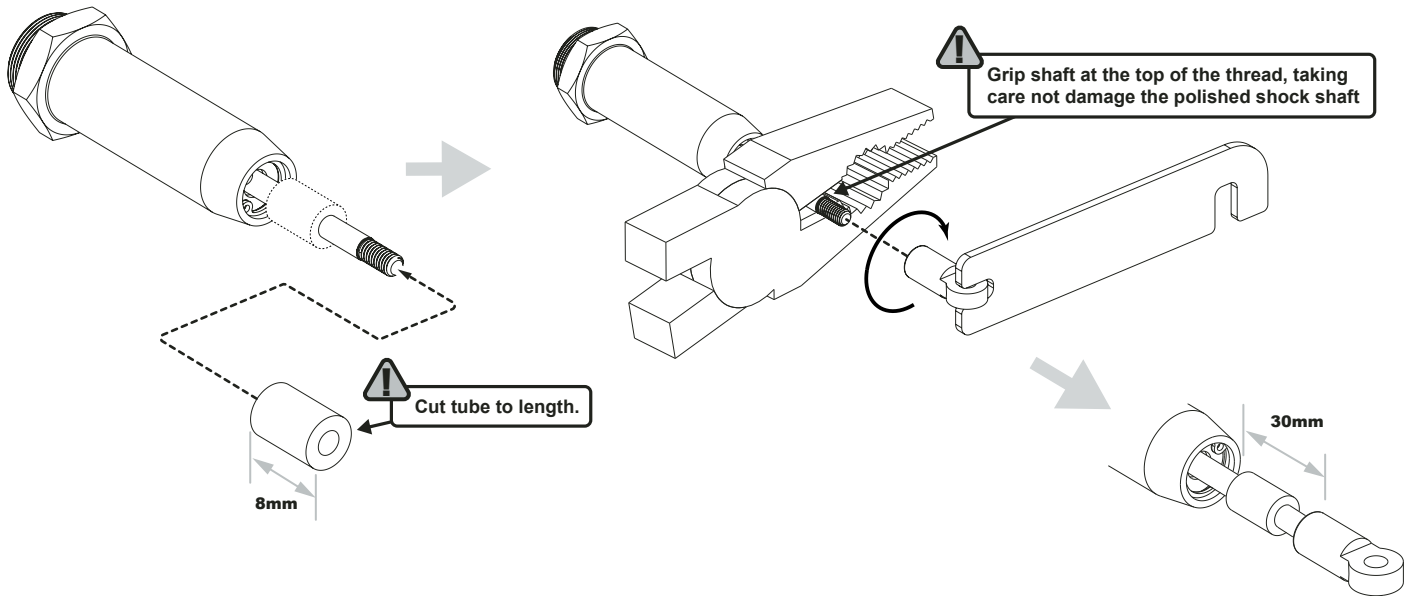


BAG E - Step 45

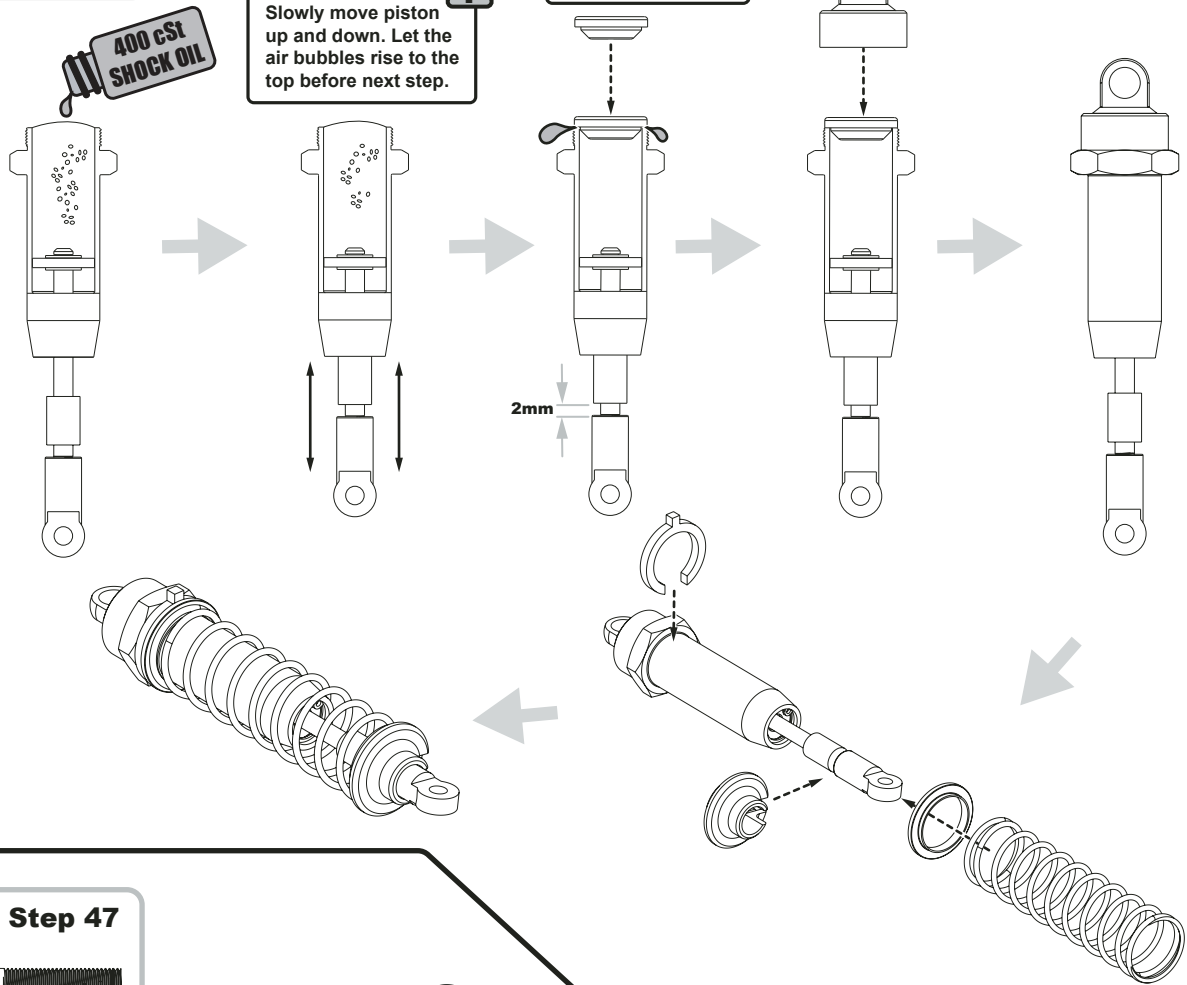
A x2








BAG F - Step 46a

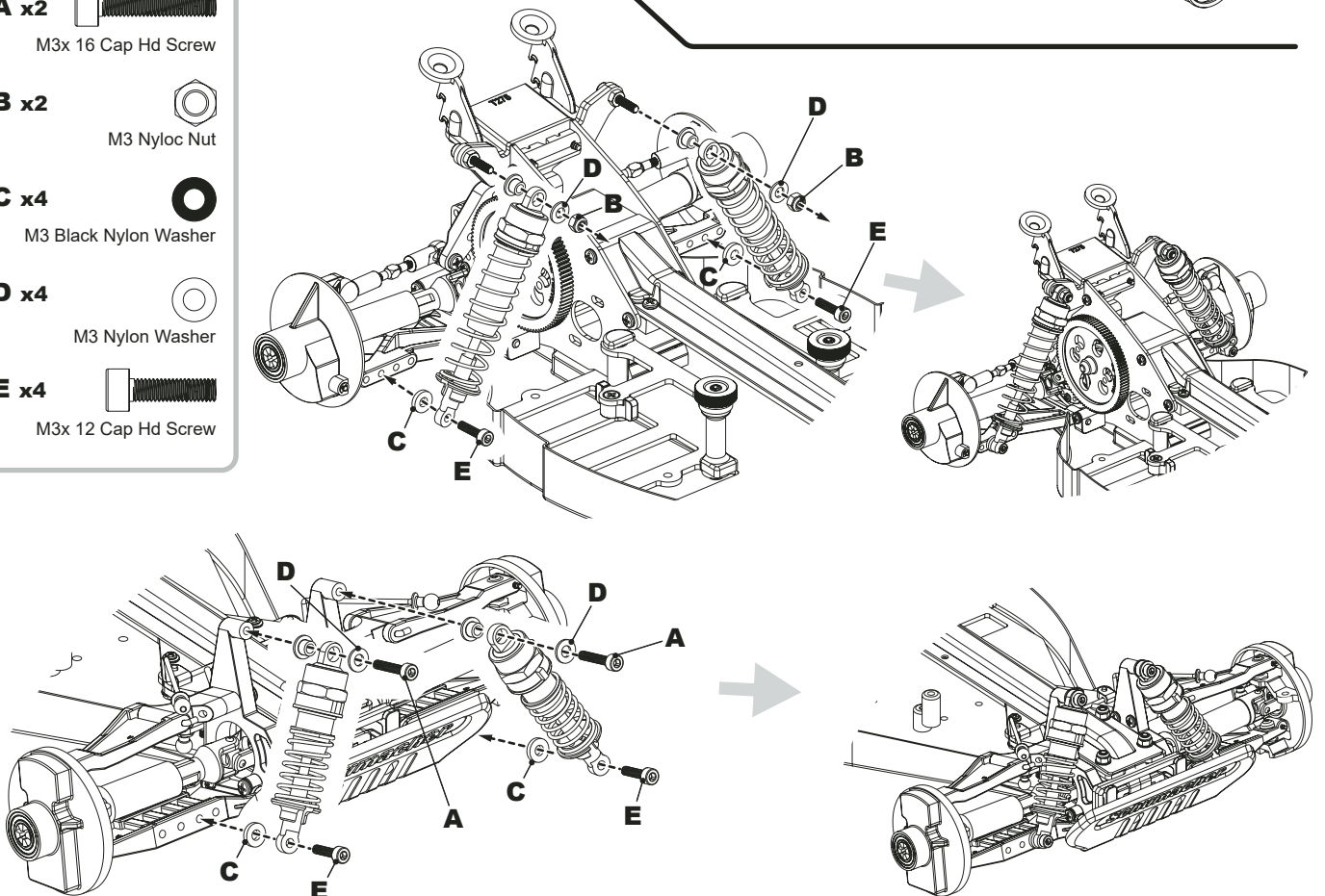


BAG F - Step 46b



BAG F - Step 47

- A x2**  M3x 16 Cap Hd Screw
- B x2**  M3 Nyloc Nut
- C x4**  M3 Black Nylon Washer
- D x4**  M3 Nylon Washer
- E x4**  M3x 12 Cap Hd Screw



PRO-GATE

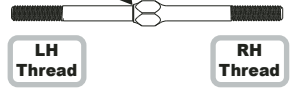
BAG F - Step 48

LH

RH

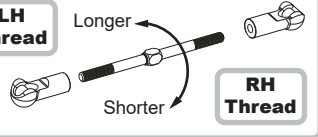


Note the shape of the turnbuckle. This side of the turnbuckle is the left hand thread.

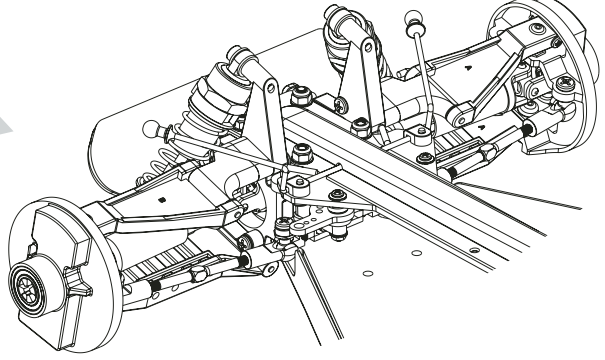
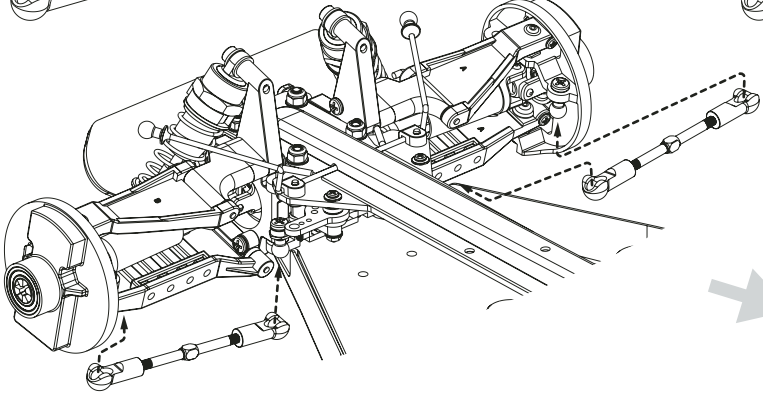
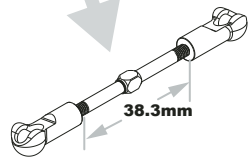
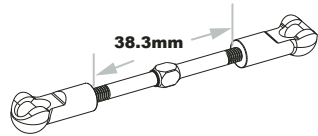


LH Thread

Longer



RH Thread



BAG F - Step 49

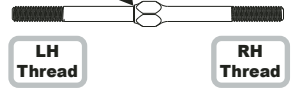
A x2



M3x 12 Grub Screw

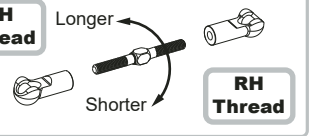


Note the shape of the turnbuckle. This side of the turnbuckle is the left hand thread.



LH Thread

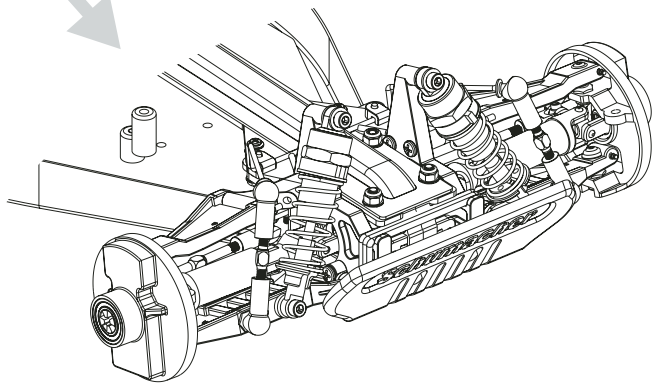
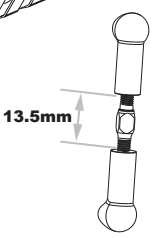
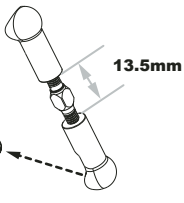
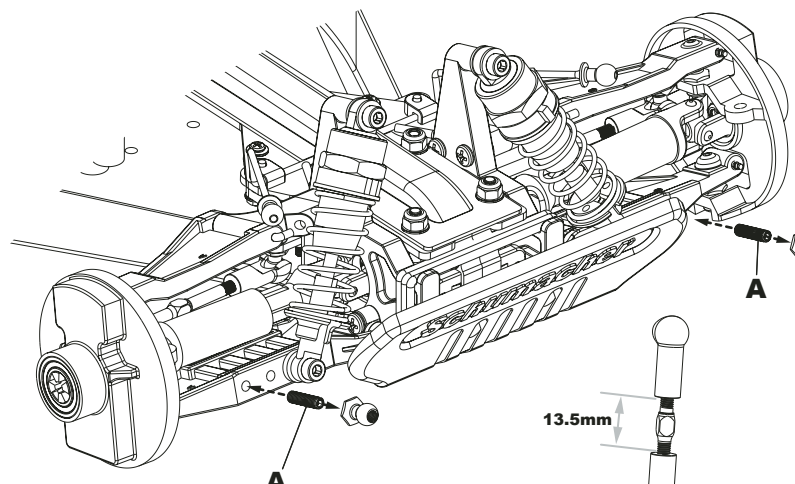
Longer



RH Thread



Make two the same.



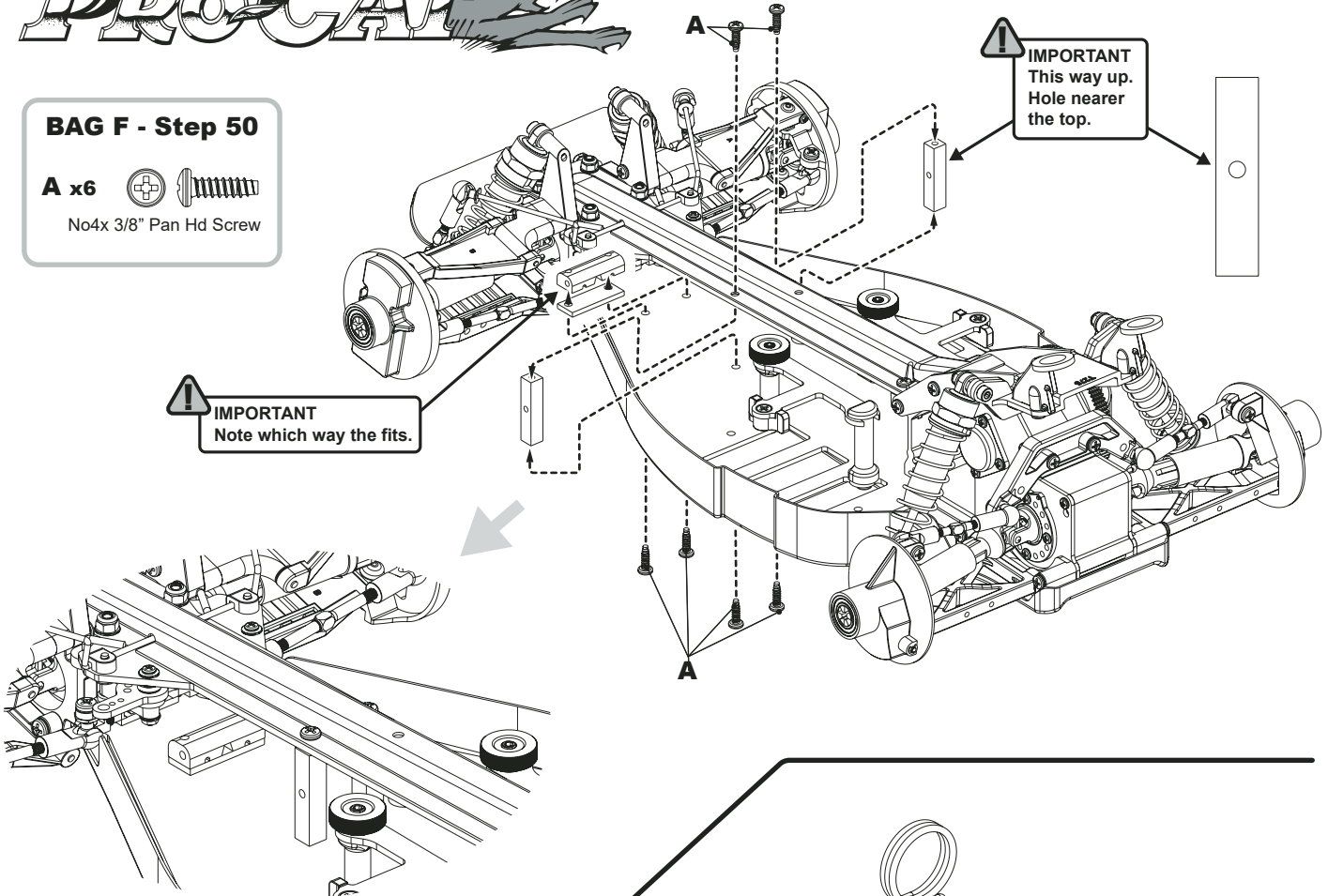
PRO-GATE

BAG F - Step 50




- A x6**  No4x 3/8" Pan Hd Screw

! IMPORTANT
Note which way the fits.

! IMPORTANT
This way up.
Hole nearer the top.

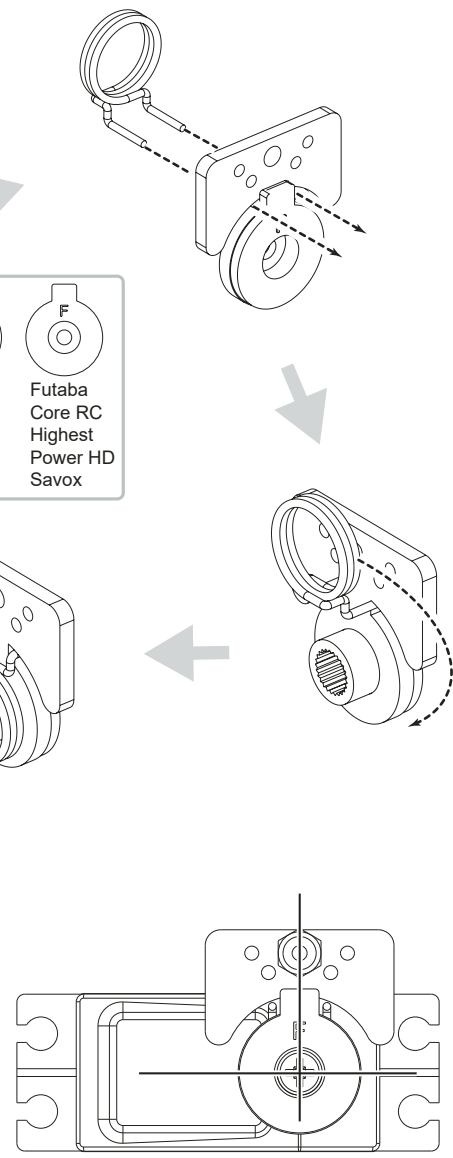
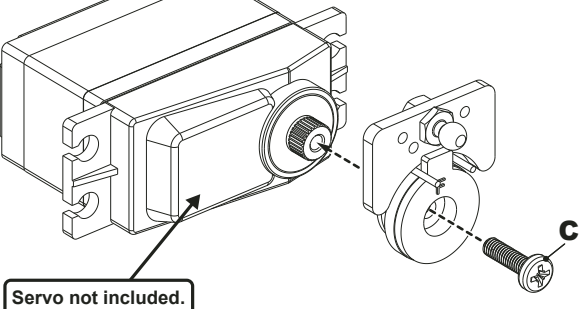


BAG F - Step 51a

- A x1**  M3 Nut
- B x1**  Ball Stud Ultra Short
- C x1**  M3x 10 Pan Hd Screw

- SA** Sanwa KO
- F** Futaba Core RC Highest Power HD Savox

! IMPORTANT
Make sure the servo is set to neutral before starting this step.



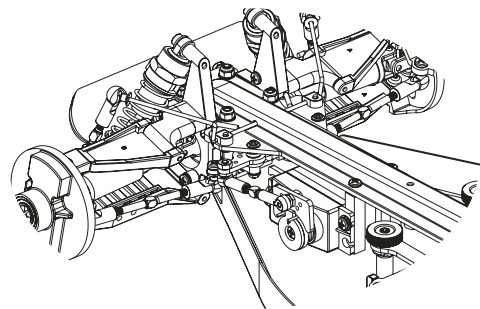
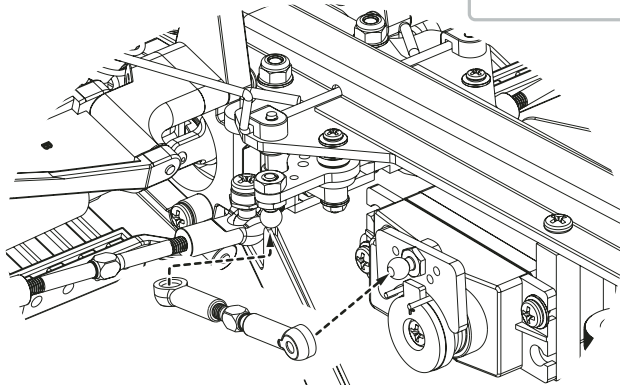
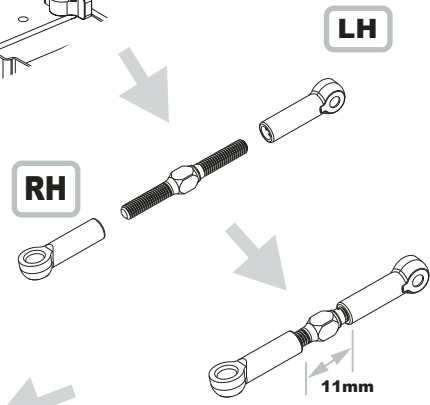
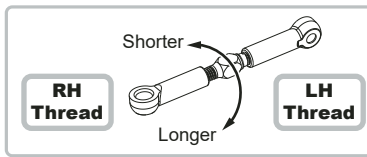
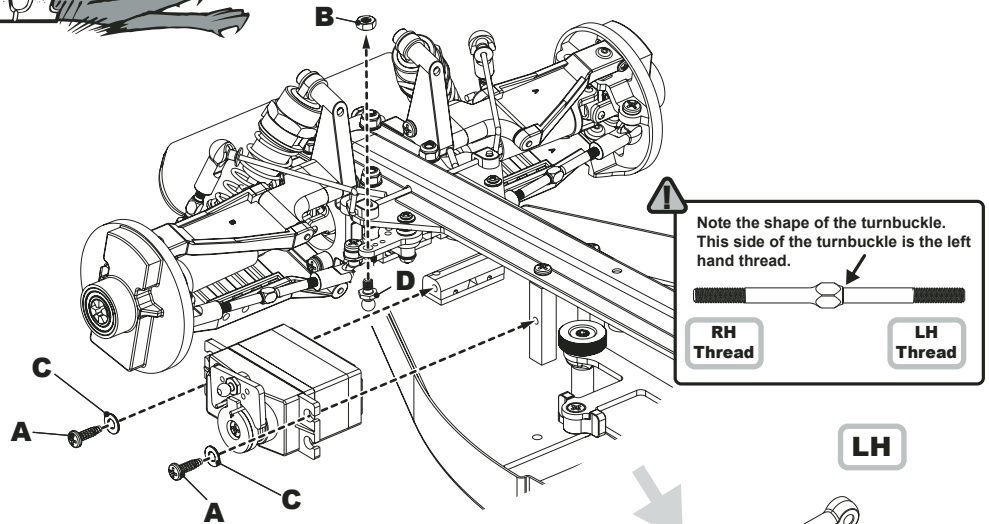
BAG F - Step 51b

A x2 
No4x 3/8" Pan Hd Screw


B x1 
M3 Nut


C x2 
M3 Washer

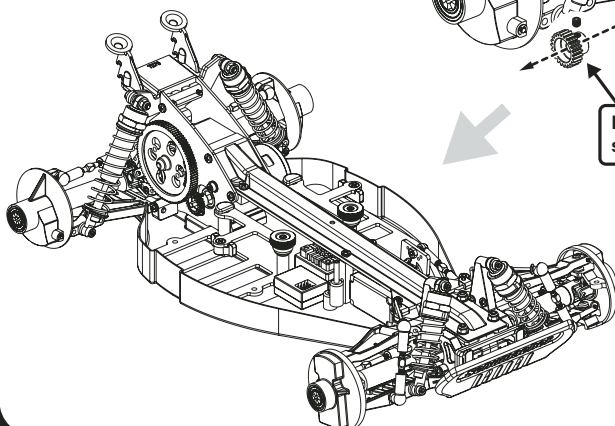
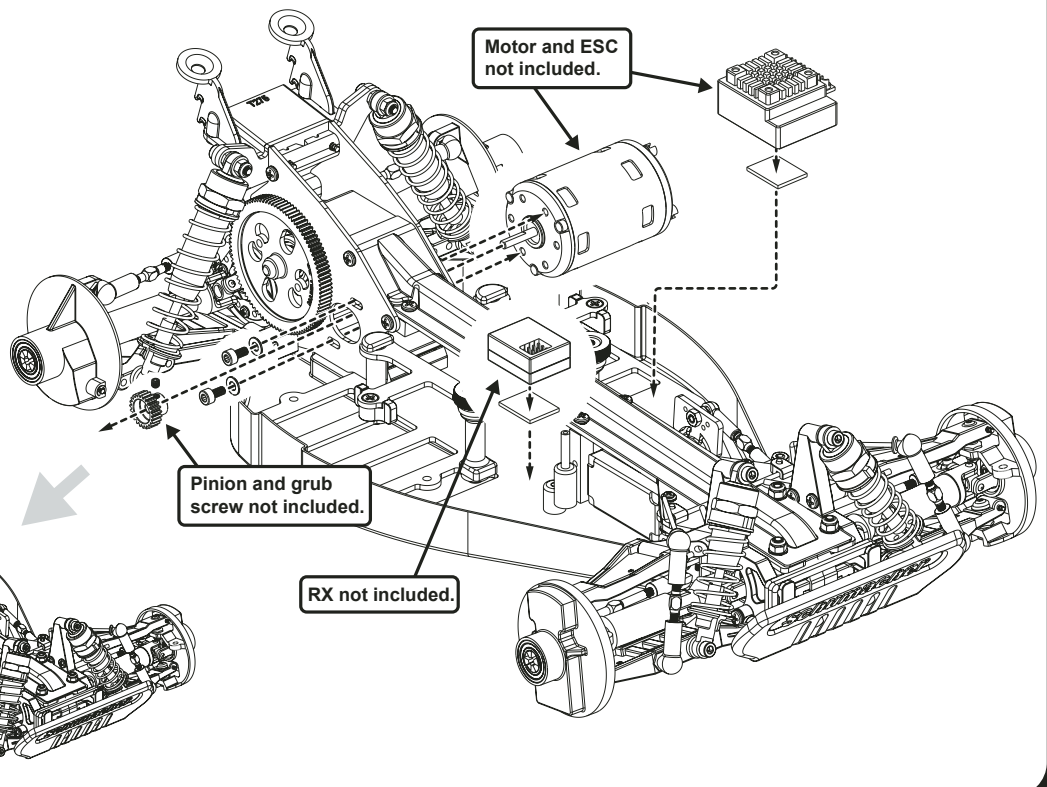
D x1 
Ball Stud Ultra Short



BAG F - Step 52

A x2 
M3 Washer

B x2 
M3x 6 Cap Hd Screw

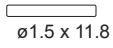


BAG F - Step 53

A x2



B x2

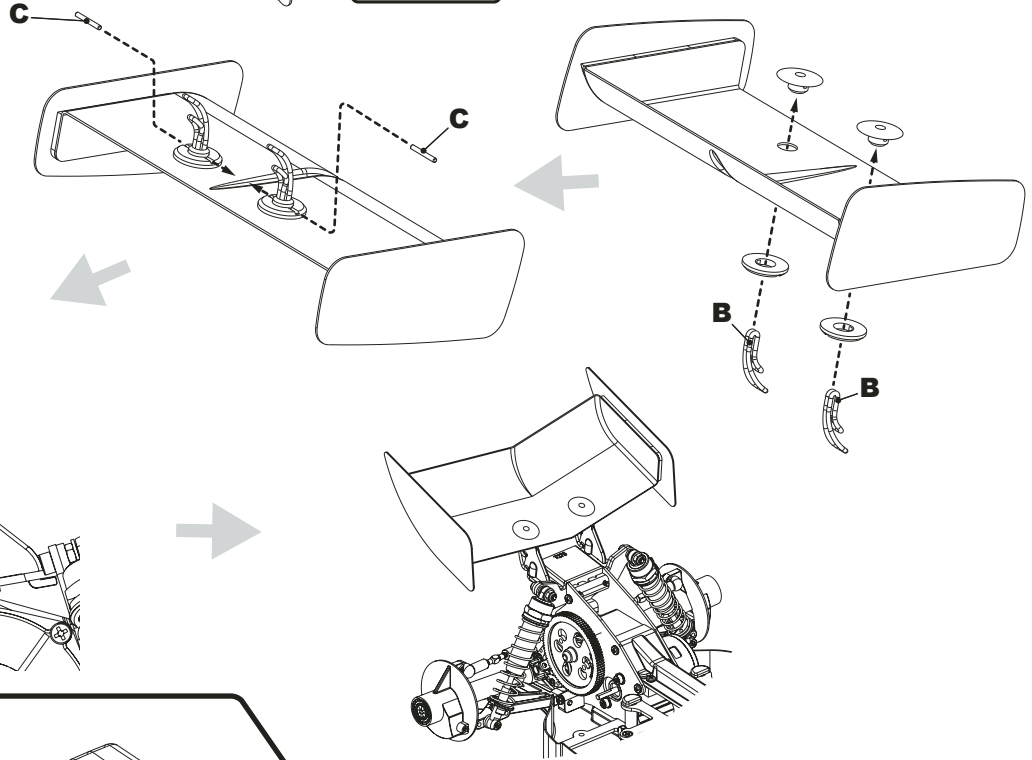


! Cut out the wing as shown before assembly.

Self adhesive foam tape.

Drill or ream two ø7mm holes.

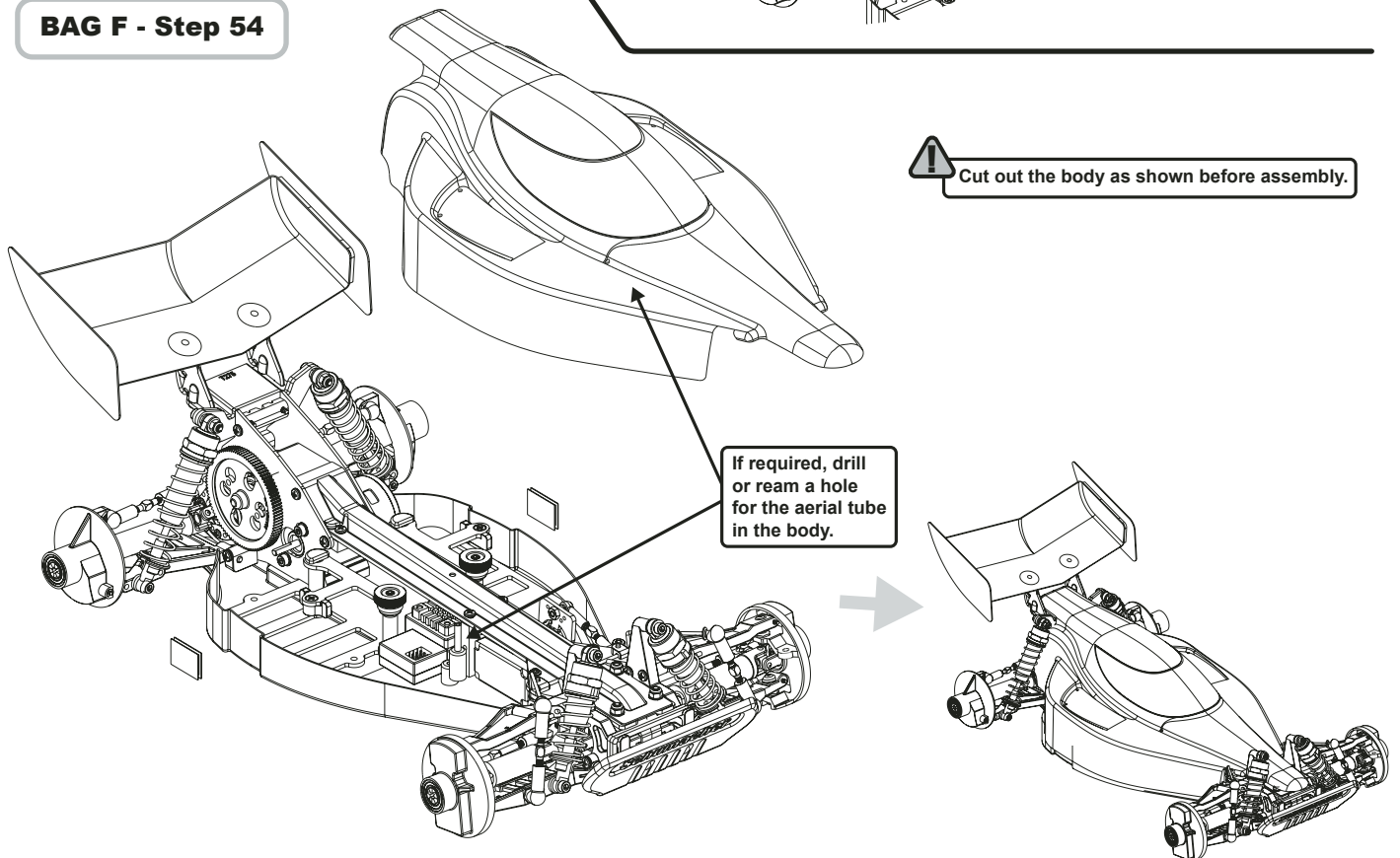
Self adhesive foam tape.




BAG F - Step 54


! Cut out the body as shown before assembly.

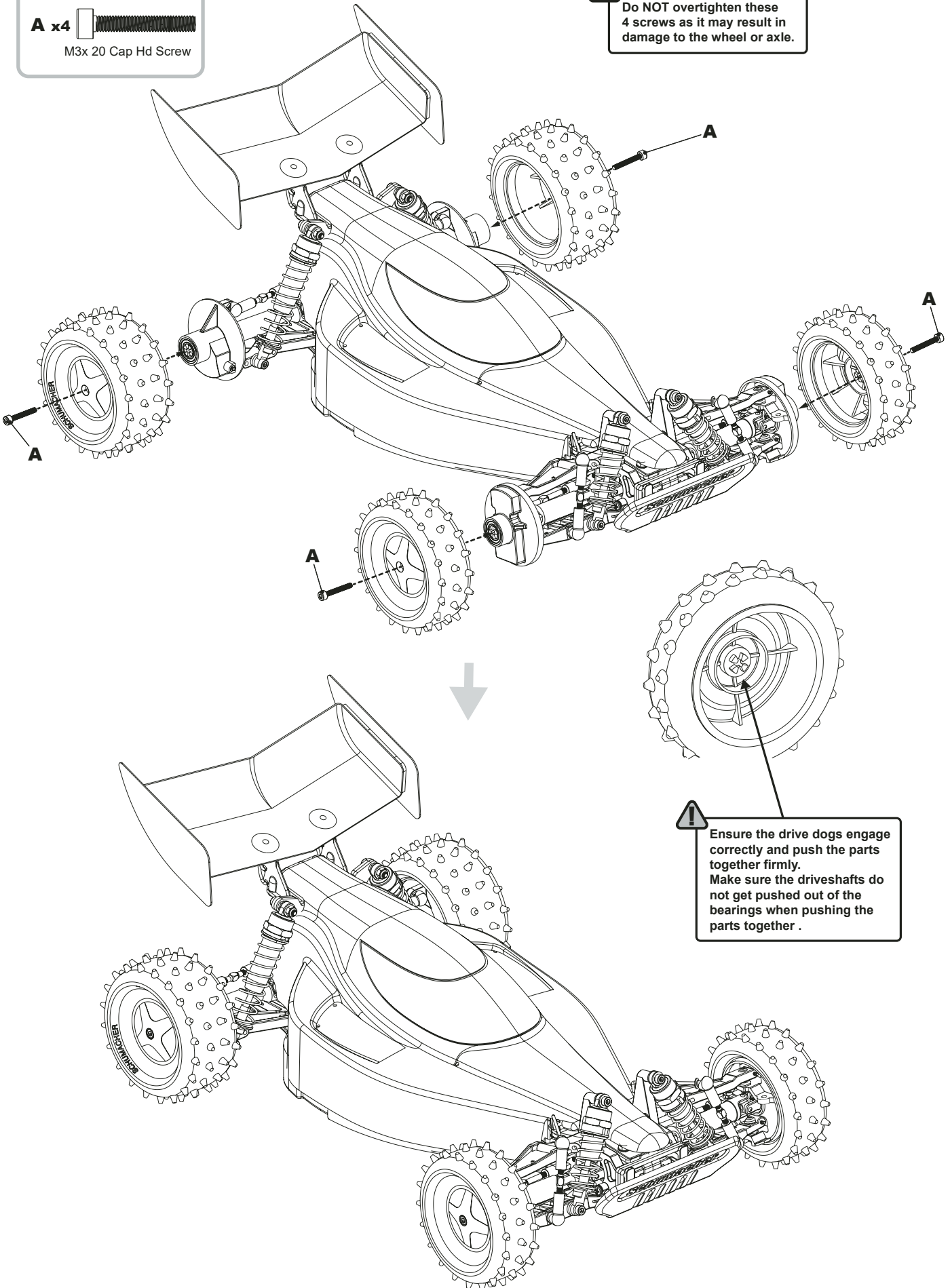
If required, drill or ream a hole for the aerial tube in the body.




BAG F - Step 55

A x4 
M3x 20 Cap Hd Screw

 Do NOT overtighten these 4 screws as it may result in damage to the wheel or axle.



 Ensure the drive dogs engage correctly and push the parts together firmly. Make sure the driveshafts do not get pushed out of the bearings when pushing the parts together .

TRACK SETTINGS

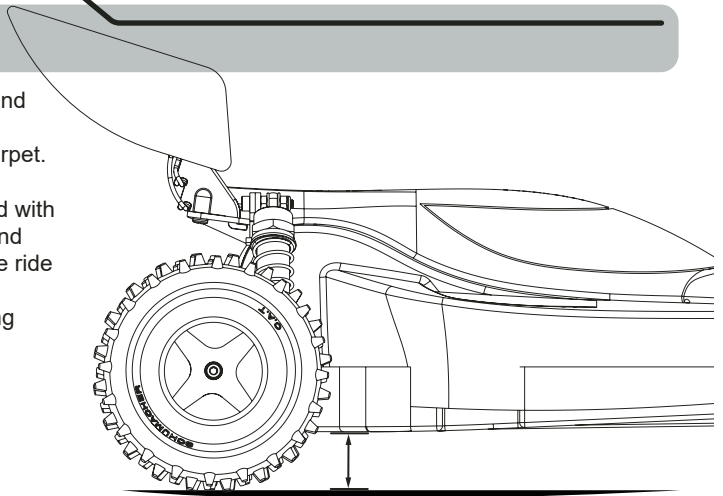
RIDE HEIGHT

Use the spring spacers on the shock absorbers to adjust the front and rear ride heights. With the car level, we recommend setting the ride height to around 19mm on astro, 23mm on dirt and 14-16mm on carpet. (16mm if there are large jumps in the track).

This is measured between the bottom of the chassis and the ground with the car in running trim. First press the car down on to the ground and release it once or twice to settle the suspension before adjusting the ride height. The chassis should be level when viewed from the side.

Adjusting the spring collars does not increase or decrease the spring stiffness only the preload.

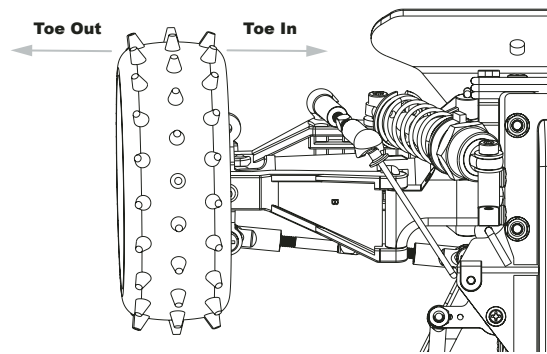
If the suspension needs to be softer or harder change the spring.



FRONT TOE

Front toe should be set to 0° (both front wheels pointing straight ahead) this will be the best setting for most track conditions. Adding toe out will increase initial turn in and make it smoother to drive on power. The team generally run 1° toe out on Astro tracks.

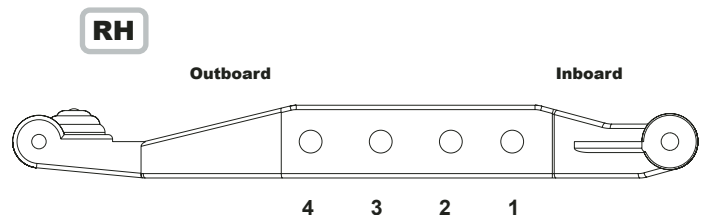
See Page 24 Bag F - Step 48



FRONT WISHBONE SHOCK MOUNTING HOLE

See Page 23 Bag F - Step 47

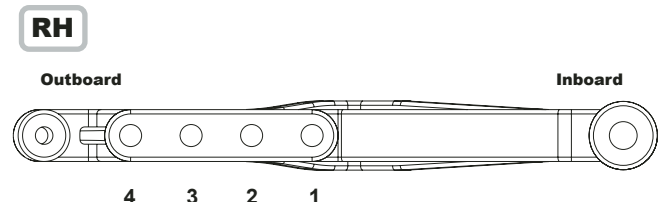
Hole (2) on the wishbone is the standard setting for most tracks. Moving the shock to the inner hole makes the car more reactive. It increases the initial turn in and makes the front of the car roll more through the turns. This setting also makes the front end softer. Moving the shock outboard to position 3 will stiffen the front end and reduce the body roll. Note that position 4 is used for the front Anti-Roll bar drop link.



REAR WISHBONE SHOCK MOUNTING HOLE

See Page 23 Bag F - Step 47

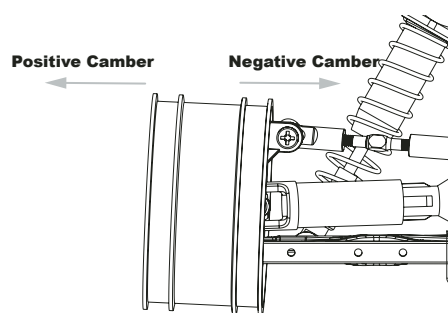
Hole 3 works best for most track conditions giving good traction and drive through the turns whilst maintaining good stability over the bumps. Moving to the outer hole on the wishbone will decrease traction but will allow the rear to free up more in the turns. This setting would usually only get used on high grip tracks and when moving the shock out you may have to change the oil and spring settings to get the same suspension feel. If the grip level is low and the track is bumpy, try moving the mounting hole inboards, alongside harder springs and thicker oil. This should help improve the handling.



REAR CAMBER

See Page 18 Bag D - Step 36

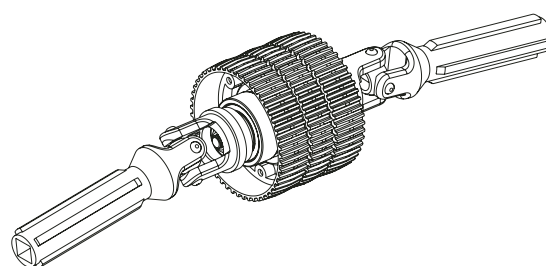
The usual team setting for static rear camber is 1° negative at ride height (the top of the tyre leaning inwards towards the car). Increasing the static rear camber will increase the traction when exiting the turns, but will be less stable at high speed. Decreasing the camber will reduce stability and traction in the turns but will be more stable at high speed.



BALL DIFFERENTIAL

See Page 6 Bag B - Step 10

For consistent performance it is vital that the differential action should be smooth and free. Diff adjustment is not a tuning aid and the diff should never be allowed to slip. A loose diff can usually be recognised by a "chirping" sound when powering away from turns or landing under power from large jumps. Never allow the diff to run dry and rebuild the diff regularly to maximise it's life.



GEAR RATIO (2.53:1)

See Page 26 Bag F - Step 52

Pinion Gear

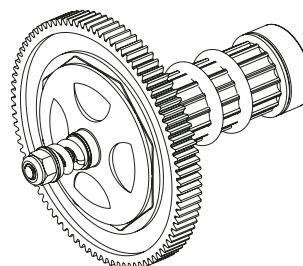
Spur Gear	Pinion Gear																	
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
83										7.75	7.47	7.20	6.95	6.72	6.50	6.30	6.11	5.93
86							9.08	8.70	8.35	8.03	7.74	7.46	7.20	6.96	6.74			
89				10.81	10.29	9.82	9.40	9.01	8.65	8.31	8.01	7.72						
92	13.14	12.41	11.76	11.17	10.64	10.16	9.71	9.31	8.94									

Tooth Sum 109 Minimum to 117 Maximum

You may need to trim the bodyshell behind the spur gear, when using the 89t or 92t gears.

SLIPPER CLUTCH *Option

On most tracks it is best to start with the slipper on a **LOOSE** setting, and gradually tighten the spring tension until you achieve the most consistent drive away from turns without spinning the car or pulling wheelies. Make sure you still have enough drive when launching the car from the up ramps. **WARNING**, do not run the slipper too loose as it could melt the plastic spur gear, also too tight may damage the transmission parts.

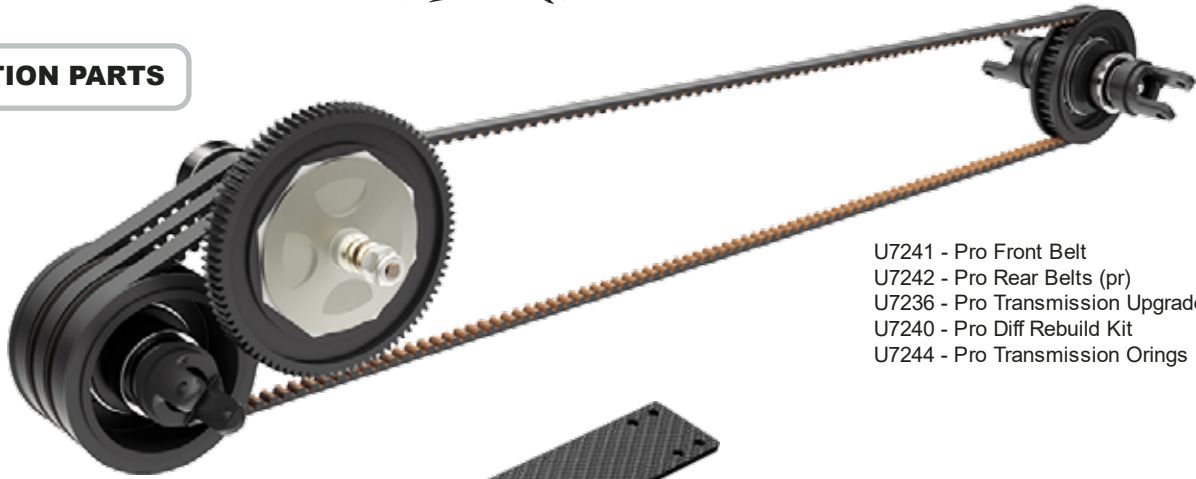


ANTI-ROLL BARS (SWAY BARS) *Options

Anti-roll bars are an often overlooked set up aid that allows fine tuning of the suspension without major changes to the shock and spring settings. They are mainly used to add roll stiffness to the car without affecting the handling on bumps and jumps. Running anti-roll bars allows you to run softer suspension on bumpy tracks while reducing the roll in corners thus maintaining stability through the turns.

Removing the front anti-roll bar will provide more mid-corner steering, but may create high speed instability. The rear anti-roll bar thickness is very dependent on the track surface/layout. On carpet, use a 1.4mm. On astro, start with a 1.2mm and for more initial steering try 1.3mm. If you need to use 1.5mm or 1.6mm consider softening the rear spring.

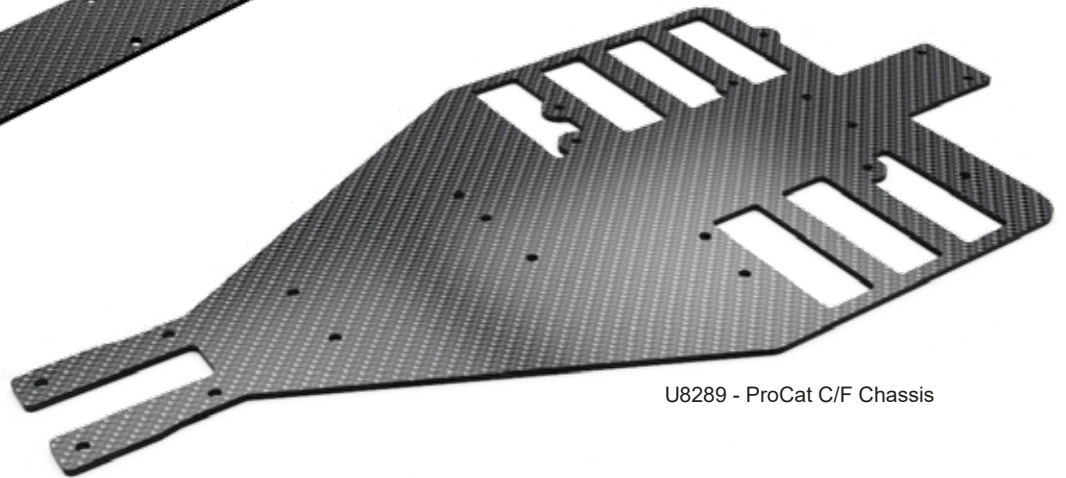
OPTION PARTS



- U7241 - Pro Front Belt
- U7242 - Pro Rear Belts (pr)
- U7236 - Pro Transmission Upgrade (Full)
- U7240 - Pro Diff Rebuild Kit
- U7244 - Pro Transmission Orings



U7264 - ProCat C/F Topdeck



U8289 - ProCat C/F Chassis



U7267 - C/F Lipo Straps



U8300 - ProCat C/F Rear Shock Mount



U7294 - Alloy Rear Trans Spacer



U8290 - ProCat C/F Rear Link Mount



U7243 - Alloy Washer Carrier

For the latest spares and option parts visit.....



www.racing-cars.com



OPTION PARTS



U7237 - Pro front Diff Pulley & Fences



U7238 - Pro Rear Diff Pulley & Fences



U7239 - Pro Layshaft



U8301 - ProCat Rear Roll Bar Conversion



U7245 - Alloy Eccentric Bearing Housings (pr)



U3850 - Moulded Wing Mount Set - Off Road



U7293 - Alloy Front Transmission Housings



- U7313 - Titanium Turnbuckle - 24mm Silver (pr)
- U7314 - Titanium Turnbuckle - 30mm Silver (pr)
- U7315 - Titanium Turnbuckle - 35mm Silver (pr)
- U7318 - Titanium Turnbuckle - 53mm Silver (pr)



U7292 - Alloy Rear Trans Housing Inner



U7268 - C/F Servo Spacer and Centre Track Rod

SPARES LISTS

Chassis Parts

U1042	Aerial Mount - Universal
U119	Aerial Tube - Pack 4
U122	Velcro 1/2metre x 16mm.
U3987	Moulded Battery Straps 6 Cell - SupaStox
U4765	Lipo Post Nut 2pcs - Off Road
U4778	LiPo Stops 4pcs - Off Road
U4968	Ball Sockets Low Profile -Eclipse - pk4
U7045	Lipo Posts Standard - KD,KC,L1/EVO,XLS,TC,LD/2,ST
U7046	Lipo Posts Short - KD,KC,L1/EVO,LD/2,ST
U7192	Servo Mount Mouldings - CAT XLS
U7193	Servo Mount Spacer - CAT XLS
U7212	Fibreglass Top Deck - CAT XLS
U7214	Fibreglass Centre Track Rod - CAT XLS
U7234	F/G Lipo Straps (pr) - CAT XLS
U7549	Wing Mount Mouldings - TOP CAT
U7151	Steering Posts (4 pcs) - CAT XLS
U7190	Steering Lever Mouldings - CAT XLS
U8276	Front Bumper - Procat
U8282	FG Chassis - Procat
U8285	Rear Link Mount - Procat
U8287	Rear Shock and Wing Mount - Procat
U8303	Servo Saver Set - Procat

Bodies & Decals

U5143	Bodyshell + Decals + Window Mask - Procat
U5144	Undertray - Procat
U5145	Belt Cover - Procat
U5146	Wing and Endplates - Procat

Suspension

U4221	Turnbuckle Adjuster HTT - 24mm - pr
U4297	Turnbuckle HT - 30mm - pr
U4298	Turnbuckle HT - 35mm - pr
U4299	Turnbuckle HT - 52mm - pr
U7159	Crash Back Pin (pr) - CAT XLS
U7160	Upper Pivot Pin (pr) - CAT XLS
U7161	Lower Pivot Pin Front (pr) - CAT XLS
U7167	Front Anti Roll Bar - CAT XLS
U7179	Upper Wishbones (pr) - CAT XLS
U7180	Lower Wishbones (pr) - CAT XLS
U7185	Front Upper Wishbone Pivot (pr) - CAT XLS
U7194	Front Suspension Brackets (4 pcs) - CAT XLS
U7195	Front Pivot Bracket (pr) - CAT XLS
U7196	Upper & Lower Front Wishbone Spacers - CAT XLS
U7199	Front Hub Carrier (pr) - CAT XLS
U7207	Anti Roll Bar Clamp (pr) - CAT XLS
U7209	Ball Sockets 4 pcs - XLS,TC
U7567	Grooved Pins 45mm (pr) - TOP CAT
U7568	Rear Wishbone LWB (pr) - TOP CAT
U7578	Rear Hub Carriers (pr) - TOP CAT
U8283	S2 Shock Support - Procat
U7584	Grooved Pins 2.0 x 34.0 (pr) - TOP CAT
U8286	Rear Pivot Blocks - Procat

Transmission

U7140	Motor Plate - CAT XLS
U7142	Integrator Axle - XLS,TC
U7144	Drive Shaft Mouldings 8 pcs - XLS,TC
U7152	UJ Assembly pr - XLS,TC
U7158	Integrator Washer pr - XLS,TC
U7174	Front Belt 323T x 4mm - CAT XLS
U7175	Rear Belt 72T x 5mm (pr) - CAT XLS
U7187	Eccentrics pr - XLS,TC
U7188	Bearing Housings pr - XLS,TC
U7191	Trans Spacer Moulding (2 pcs) - CAT XLS
U7197	Rear Inner Trans Housing - CAT XLS
U7198	Rear Outer Trans Housing - CAT XLS

Transmission Cont.

U7205	Front Washer Carrier pr - XLS,TC
U7216	Thrust Race F1/8 x 5/16 x 9/64 Grooved - XLS,TC
U7240	Pro Diff Rebuild Kit - XLS,TC
U8173	Disc Spring 6 x 3.2 x 0.3mm pk8 - TC,XLS
U8277	Diff Pulley Mouldings - Procat
U8278	Layshaft Pulley and Flange - Procat
U8284	Front Transmission Housing - Procat (pr)
U8288	Layshaft - Procat
U8308	86T Whisper Spur Gear Black

Bearing & Balls

U7155	Bearing 8 x 16 x 5 Black Seal (pr)
U729	Chrome Steel Balls 3mm pk36-Fusion 28 turbo,XLS,TC

Shock Absorbers

U1119	Fuel Pipe - 1/2 metre
U4362	Small Bore Diaphragm - pk4
U7145	Rear Shock Body pr - XLS,TC
U7146	Front Shock Body pr - XLS,TC
U7147	Shock Cap pr - XLS,TC
U7148	Rear Shock Shaft pr - XLS,TC
U7149	Front Shock Shaft (pr) - CAT XLS
U7170	Shock Top Bush 4 pcs - XLS,TC
U7171	Shock Bush Internal pr - XLS,TC
U7172	Shock Rebuild Kit pr - XLS,TC
U7176	Front Pistons pr - XLS,TC
U7210	Shock Sockets (4 Pcs) - CAT XLS
U7261	Shock Mouldings pr - XLS,TC
U7272	Vintage Springs Short 6.0lb/in (pr)
U7273	Vintage Springs Med 4.0lb/in (pr)
U7432	Shock Spring Seat Moulded pr - L1,TC
U835	Vari Shock Seal Pack (pr)

Hardware

U1247	SPEED PACK - Wing Mount 'O' Ring
U1547	SPEED PACK - M3 Nuts
U1548	SPEED PACK - M3 Washers
U1551	SPEED PACK - E Clips -2 x 8pcs
U1633	SPEED PACK - Small Pins (pk)
U1960	SPEED PACK - O Rings; Various
U3495	Ball Studs; Ultra Short - pk 4
U3986	Suspension O'ring Tuning Set - SS/GT
U4775	Pivot Ball 5.5mm - (4pcs)
U4987	SPEED PACK Needle Roller 1.5x11.8 (pk8)
U7090	SPEED PACK - M4x20 Grub Screw (pk4)
U7150	Pivot Ball 4 pcs - XLS,TC
U7164	SPEED PACK M3 x 12 SS Cap Hd (pk10)
U7165	SPEED PACK M3 x 16 SS Cap Hd (pk10)
U7166	SPEED PACK M3 x 20 SS Cap Hd (pk10)
U7220	SPEED PACK M3 x 10 Pan Hd Pozi (pk10)
U7221	SPEED PACK M3 x 12 Pan Hd Pozi (pk10)
U7222	SPEED PACK M2 Nut (pk10)
U7223	SPEED PACK M3 X 12 Grub (pk10)
U7224	SPEED PACK M3 x 40 Csk Pozi (pk10)
U7225	SPEED PACK M2 Steel Washer (pk10)
U7226	SPEED PACK No 2 x 3/16 Pan Hd (pk10)
U7227	SPEED PACK No 2 x 1/2 Pan Hd (pk10)
U7228	SPEED PACK No 4 x 1/4 Pan Hd (pk10)
U7229	SPEED PACK No 4 x 3/8 Pan Hd (pk10)
U7230	SPEED PACK No 4 x 1/2 Pan Hd (pk10)
U7231	SPEED PACK No 4 x 3/4 Pan Hd (pk10)
U7232	SPEED PACK No 4 x 1 Pan Hd (pk10)
U7258	SPEED PACK M2 x 16 Pan Hd Pozi (pk10)
U7259	SPEED PACK M3 x 8 Csk Pozi (pk10)
U7262	Anti Roll Bar Ball (4pcs) - CAT XLS
U7332	SPEED PACK WASHERS Dia 3.5 (pk15)
U7566	SPEED PACK - No2x3/8 Pan Pozi (pk10)

SPARES LISTS

Hardware Cont.

- U7707 M3 Washers (pk10)
- U7709 M3 Black Alloy Washers 0.75mm (pk10)
- U8309 M3x6 Stainless Steel Cap Head (pk10)

Option Parts

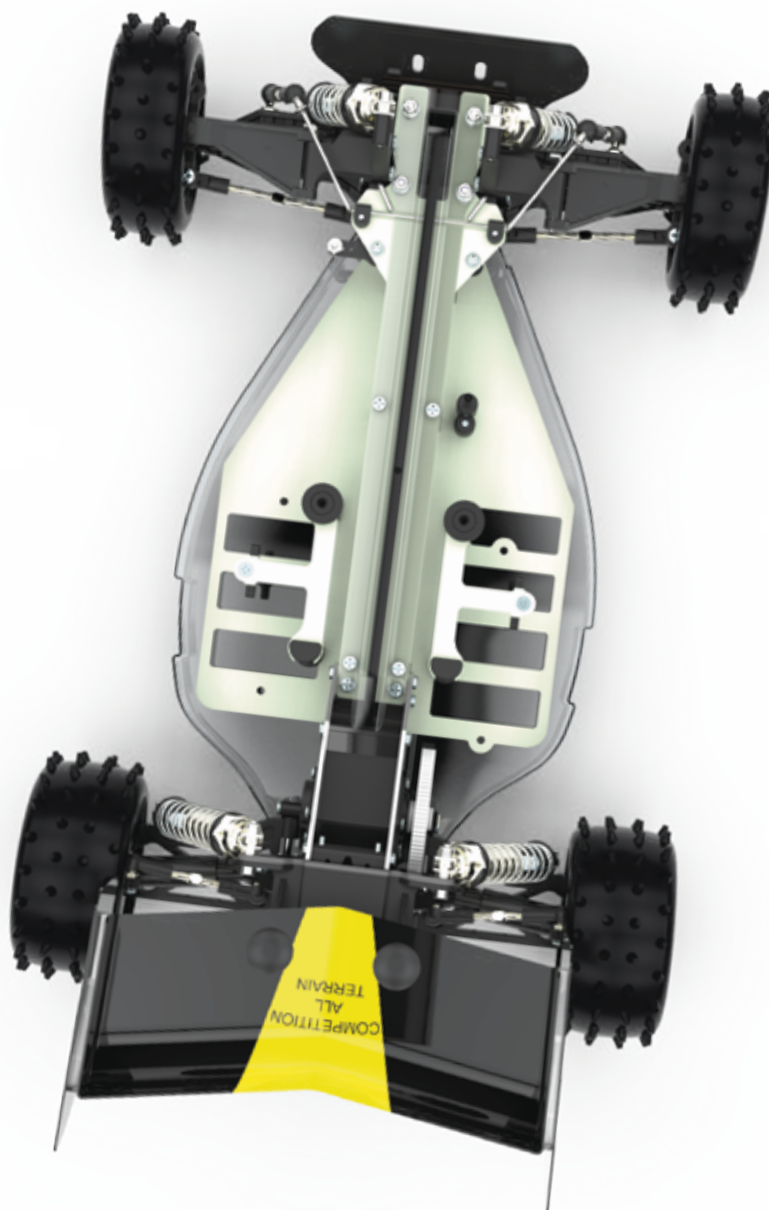
- U230 92T Whisper Gear - 48 D.P.
- U231 89T Whisper Gear - 48 D.P.
- U232 86T Whisper Gear - 48 D.P.
- U1894 83T Whisper Gear - 48 D.P.
- U3850 Wing Mount Set - Off Road
- U7154 Gear; 89T Spur - Slipper
- U7236 Pro Transmission Upgrade - CAT XLS
- U7237 Pro front Diff Pulley & Fences - CAT XLS
- U7238 Pro Rear Diff Diff Pulley & Fences - CAT XLS
- U7239 Pro Layshaft - CAT XLS
- U7240 Pro Diff Rebuild Kit - XLS,TC
- U7241 Pro Front Belt - CAT XLS
- U7242 Pro Rear Belt (pr) - CAT XLS
- U7243 Alloy Washer Carriers (pr) - CAT XLS
- U7244 Pro Transmission O-Rings - CAT XLS
- U7245 Alloy Eccentric (pr) - CAT XLS
- U7264 C/F Topdeck - CAT XLS
- U7267 C/F Lipo Straps - CAT XLS
- U7268 C/F Servo Spacer and C.T.R - CAT XLS
- U7292 Alloy Rear Trans Housing Inner - CAT XLS
- U7293 Alloy Front Transmission Housings - Procat/XLS
- U7294 Alloy Rear Trans Spacer - CAT XLS
- U7313 Titanium Turnbuckle - 24mm - Silver - pr
- U7314 Titanium Turnbuckle - 30mm - Silver - pr
- U7315 Titanium Turnbuckle - 35mm - Silver - pr
- U7318 Titanium Turnbuckle - 53mm - Silver - pr
- U8289 C/F Chassis - Procat
- U8290 C/F Rear Link Mount - Procat
- U8300 C/F Rear Shock Mount - Procat
- U8301 Rear Roll Bar Conversion - Procat
- U8328 Vintage Springs Short Set (7pr)
- U8329 Vintage Springs Med Grey 2.7lb/in (pr)
- U8330 Vintage Springs Med Blue 3.0lb/in (pr)
- U8331 Vintage Springs Med Black 3.3lb/in (pr)
- U8332 Vintage Springs Med Set (6pr)
- U8362 Vintage Springs Med Green 3.6lb/in (pr)
- U8363 Vintage Springs Med Orange 4.4lb/in (pr)
- U8364 Vintage Springs Short Green 5.2lb/in (pr)
- U8365 Vintage Springs Short Purple 6.9lb/in (pr)
- U8366 Vintage Springs Short Orange 8.0lb/in (pr)
- U8367 Vintage Springs Short Grey 3.5lb/in (pr)
- U8368 Vintage Springs Short Blue 4.0lb/in (pr)
- U8369 Vintage Springs Short Black 4.5lb/in (pr)

Pinions

- U2305 16T Steel Pinion - 48 D.P.
- U2306 17T Steel Pinion - 48 D.P.
- U2307 18T Steel Pinion - 48 D.P.
- U2308 19T Steel Pinion - 48 D.P.
- U2309 20T Steel Pinion - 48 D.P.
- U2310 21T Steel Pinion - 48 D.P.
- U2311 22T Steel Pinion - 48 D.P.
- U2312 23T Steel Pinion - 48 D.P.
- U2313 24T Steel Pinion - 48 D.P.
- U2314 25T Steel Pinion - 48 D.P.
- U2315 26T Steel Pinion - 48 D.P.
- U2316 27T Steel Pinion - 48 D.P.
- U2317 28T Steel Pinion - 48 D.P.
- U2318 29T Steel Pinion - 48 D.P.
- U2319 30T Steel Pinion - 48 D.P.

Wheels

- U7597 Front Wheels White (pr) - TOP CAT
- U7598 Rear Wheels White (pr) - TOP CAT
- CR680 JC 5 Spoke 2.2 Front White Wheel XLS - pr
- CR681 JC 5 Spoke 2.2 Rear White Wheel XLS pr
- CR682 JC Dish 2.2 Front White Wheel XLS pr
- CR683 JC Dish 2.2 Rear White Wheel XLS pr
- CR684 JC Spoke 2.2 Front Wheel - TOP CAT - pr



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TYRES, WHEELS & INSERTS

<p>Full Spike 2" CAT</p>  <p>T652 - Yellow Compound (pr)</p>	<p>Rear Full Spike 2" CAT</p>  <p>T650 - Yellow Compound (pr)</p>	<p>Slim 2 Row Stud 2"</p>  <p>T654 - Yellow Compound (pr)</p>	<p>Block Rear Tyres 2"</p>  <p>T692 - Blue Compound (pr) U6786 - Yellow Compound (pr)</p>	<p>Block Front Tyres 2"</p>  <p>T693 - Blue Compound (pr) U6787 - Yellow Compound (pr)</p>	<p>4WD Front Mini Spike 2</p>  <p>U6515 - Green Compound (pr) U6517 - Blue Compound (pr) U6557 - Yellow Compound (pr) U6762 - Silver Compound (pr)</p>
<p>Rear Mini Spike 2</p>  <p>U6516 - Green Compound (pr) U6518 - Blue Compound (pr) U6558 - Yellow Compound (pr) U6763 - Silver Compound (pr)</p>	<p>Mini Spike 2 Slim</p>  <p>U6549 - Blue Compound (pr) U6550 - Green Compound (pr) U6581 - Yellow Compound (pr) U6761 - Silver Compound (pr)</p>	<p>Stagger Rib Slim</p>  <p>U6592 - Yellow Compound (pr)</p>	<p>Full Spike Front 2.2"</p>  <p>U6595 - Yellow Compound (pr)</p>	<p>Full Spike Rear 2.2"</p>  <p>U6596 - Yellow Compound (pr)</p>	<p>Mini Pin Front 2.2"</p>  <p>U6601 - Blue Compound (pr) U6607 - Yellow Compound (pr) U6777 - Silver Compound (pr)</p>
<p>Mini Pin Rear 2.2"</p>  <p>U6608 - Yellow Compound (pr)</p>	<p>Mini Pin Slim 2.2"</p>  <p>U6609 - Yellow Compound (pr) U6779 - Silver Compound (pr)</p>	<p>Cut Stagger Slim</p>  <p>U6759 - Yellow Compound (pr) U6765 - Green Compound (pr)</p>	<p>Cut Stagger Low Profile</p>  <p>U6770 - Yellow Compound (pr) U6771 - Green Compound (pr) U6775 - Silver Compound (pr) U6776 - Blue Compound (pr)</p>	<p>2WD 2 Row Stud 2.2"</p>  <p>U6797 - Yellow Compound (pr)</p>	<p>Mini Pin 2 Rear</p>  <p>U6803 - Blue Compound (pr) U6804 - Yellow Compound (pr) U6805 - Silver Compound (pr)</p>
<p>Wide Stagger Rib</p>  <p>U6810 - Yellow Compound (pr) U6811 - Silver Compound (pr) U6846 - Blue Compound (pr)</p>	<p>Mini Pin 1 Rear</p>  <p>U6817 - Yellow Compound (pr) U6819 - Blue Compound (pr) U6820 - Silver Compound (pr)</p>	<p>Mini Pin 2 Front</p>  <p>U6821 - Yellow Compound (pr)</p>	<p>Mini Dart Front 2WD</p>  <p>U6824 - Yellow Compound (pr) U6827 - Blue Compound (pr) U6830 - Silver Compound (pr)</p>	<p>Mini Dart Front 4WD</p>  <p>U6825 - Yellow Compound (pr) U6828 - Blue Compound (pr) U6831 - Silver Compound (pr)</p>	<p>Mini Dart Rear</p>  <p>U6826 - Yellow Compound (pr) U6829 - Blue Compound (pr) U6832 - Silver Compound (pr)</p>
<p>Cactus Rear</p>  <p>U6838 - Yellow Compound (pr) U6842 - Silver Compound (pr) U6844 - Blue Compound (pr)</p>	<p>Cactus Front 4WD</p>  <p>U6840 - Yellow Compound (pr) U6843 - Silver Compound (pr) U6845 - Blue Compound (pr)</p>	<p>Slim Rib Spike Front</p>  <p>U6847 - Yellow Compound (pr) U6848 - Blue Compound (pr)</p>	<p>Mini Spike 2.0" Rear</p>  <p>U6849 - Yellow Compound (pr)</p>	<p>Cactus Fusion 4WD Front</p>  <p>U6855 - Yellow Compound (pr) U6858 - Silver Compound (pr)</p>	<p>Honeycomb 2WD Front</p>  <p>U6859 - Yellow Compound (pr)</p>
<p>Honeycomb 4WD Front</p>  <p>U6861 - Yellow Compound (pr)</p>	<p>Honeycomb Rear</p>  <p>U6863 - Yellow Compound (pr)</p>	<p>Mezzo Rear</p>  <p>U6885 - Yellow Compound (pr) U6886 - Silver Compound (pr) U6887 - Blue Compound (pr)</p>	<p>Mezzo Front 4WD</p>  <p>U6888 - Yellow Compound (pr) U6889 - Silver Compound (pr) U6890 - Blue Compound (pr)</p>	<p>Cactus Fusion 2 4WD Front</p>  <p>U6895 - Yellow Compound (pr) U6896 - Blue Compound (pr)</p>	<p>For the full and latest range of off-road tyres, scan the QR code.</p>  <p>Or visit www.racing-cars.com and check out: Products > Wheels & Tyres.</p>
<p>Front Slim Inserts</p>  <p>U6738 - Medium (pr) U6667 - Hard (pr)</p>	<p>Front Medium Inserts</p>  <p>U6733 - Medium (pr) U6746 - Medium Tubby (pr) U6652 - Hard (pr)</p>	<p>Rear Inserts</p>  <p>U6734 - Medium (pr) U6747 - Medium Tubby (pr) U6653 - Hard (pr) U6668 - Soft Ultra Wide (pr) U6669 - Hard Ultra wide (pr)</p>	<p>Wheels</p>  <p>U7181 - Rear Wheel Black (pair) U7182 - Front Wheel Black (pair) U7289 - White Rear Wheel (pair) U7290 - White Front Wheel (pair) U7597 - White Front Wheel TopCat (pair) U7598 - White Rear Wheel TopCat (pair) CR680 - JC 5 Spoke 2.2 Front White (pr) CR681 - JC 5 Spoke 2.2 Rear White (pr) CR682 - JC Dish 2.2 Front White (pr) CR683 - JC Dish 2.2 Rear White (pr)</p>		



Driver: _____ Date: _____ Event/Track: _____
 Qualify: _____ Final: _____ Best Lap: _____

TRACK TYPE

Grip Level High Medium Low
 Type Tight Open Mixed
 Condition Flat Bumpy Mixed
 Surface Clay Long Astro Carpet
 Grass Short Astro Mixed
 Weather _____

TYRES

	FRONT	REAR
Tyres	_____	_____
Wheels	_____	_____
Inserts	_____	_____

Notes:

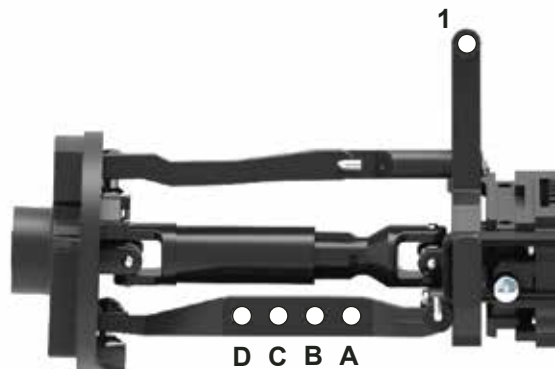
Notes:

FRONT SUSPENSION

KEY: P = Plastic, A = Alloy, B = Brass, F/G = Fibre Glass, C/F = Carbon Fibre, S2 = Schumacher Composite, M = Medium, S = Stiff, Sh = Short, H = High, L = Low, F = Front, R = Rear, Y = Yes, N = No

Ride Height _____ mm
 Toe _____ deg In Out
 Anti Roll Bar Y N
 Bump Steer Washers _____ mm

Notes:

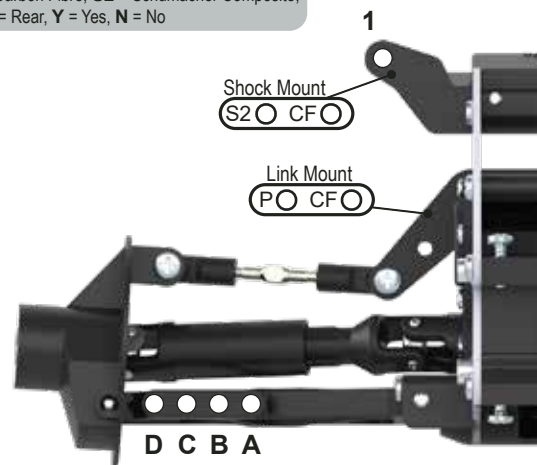


REAR SUSPENSION

KEY: P = Plastic, A = Alloy, B = Brass, F/G = Fibre Glass, C/F = Carbon Fibre, S2 = Schumacher Composite, M = Medium, S = Stiff, Sh = Short, H = High, L = Low, F = Front, R = Rear, Y = Yes, N = No

Ride Height _____ mm
 Camber at Ride Height _____ deg
 Anti Roll Bar None 1.2 1.3 1.4 1.5 1.6

Notes:



TRANSMISSION

Motor _____
 Rotor Dia. _____ mm
 Timing _____ deg
 Pinion _____ t
 Spur _____ t
 TransUpgrade Y N
 Slipper Plates 0 2 3

Notes:

CHASSIS

Chassis F/G C/F
 Top Deck F/G C/F
 Running Weight _____ g

Notes:

EQUIPMENT

E.S.C. _____
 Servo _____
 RX _____
 LiPo _____
 Bodyshell _____

WEIGHTS

Under LiPo Y N
 Notes:

SHOCKS

KEY: i = Internal, e = External

	FRONT	REAR
Oil	_____ cSt	_____ cSt
Piston	_____	_____
Spring	_____ lb/in	_____ lb/in
Limiters (i)	_____ mm	_____ mm
Stroke	_____ mm	_____ mm
Limiters (e)	_____ mm	_____ mm

Notes:





Driver: _____ Date: _____ Event/Track: _____
 Qualify: _____ Final: _____ Best Lap: _____

TRACK TYPE

Grip Level High Medium Low
 Type Tight Open Mixed
 Condition Flat Bumpy Mixed
 Surface Clay Long Astro Carpet
 Grass Short Astro Mixed
 Weather _____

TYRES

	FRONT	REAR
Tyres	_____	_____
Wheels	_____	_____
Inserts	_____	_____

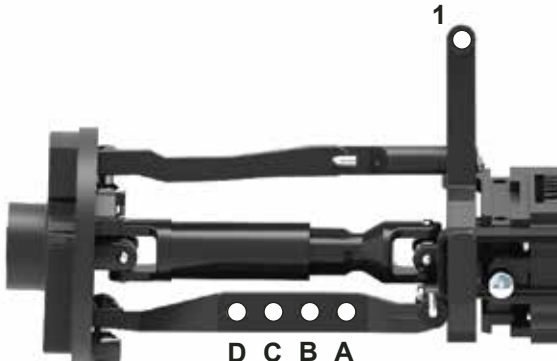
Notes: _____

Notes: _____

FRONT SUSPENSION KEY: P = Plastic, A = Alloy, B = Brass, F/G = Fibre Glass, C/F = Carbon Fibre, S2 = Schumacher Composite, M = Medium, S = Stiff, Sh = Short, H = High, L = Low, F = Front, R = Rear, Y = Yes, N = No

Ride Height _____ mm
 Toe _____ deg In Out
 Anti Roll Bar Y N
 Bump Steer Washers _____ mm

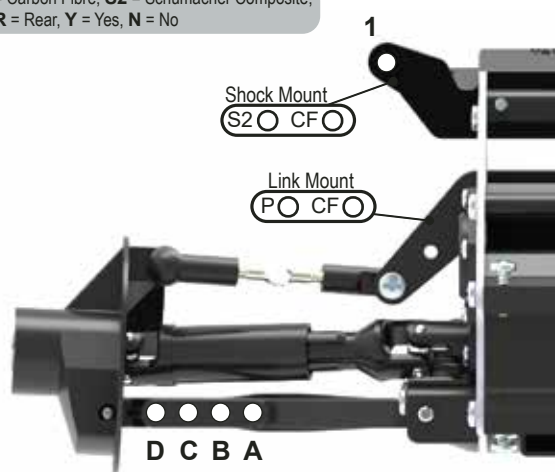
Notes: _____



REAR SUSPENSION KEY: P = Plastic, A = Alloy, B = Brass, F/G = Fibre Glass, C/F = Carbon Fibre, S2 = Schumacher Composite, M = Medium, S = Stiff, Sh = Short, H = High, L = Low, F = Front, R = Rear, Y = Yes, N = No

Ride Height _____ mm
 Camber at Ride Height _____ deg
 Anti Roll Bar None 1.2 1.3 1.4 1.5 1.6

Notes: _____



TRANSMISSION

Motor _____
 Rotor Dia. _____ mm
 Timing _____ deg
 Pinion _____ t
 Spur _____ t
 TransUpgrade Y N
 Slipper Plates 0 2 3

Notes: _____

CHASSIS

Chassis F/G C/F
 Top Deck F/G C/F
 Running Weight _____ g

Notes: _____

EQUIPMENT

E.S.C. _____
 Servo _____
 RX _____
 LiPo _____
 Bodyshell _____

WEIGHTS

Under LiPo Y N

Notes: _____

SHOCKS KEY: i = Internal, e = External

	FRONT	REAR
Oil	_____ cSt	_____ cSt
Piston	_____	_____
Spring	_____ lb/in	_____ lb/in
Limiters (i)	_____ mm	_____ mm
Stroke	_____ mm	_____ mm
Limiters (e)	_____ mm	_____ mm

Notes: _____

