

# CATLR

PURE BEAST



## Instruction Manual ISS01



[www.racing-cars.com](http://www.racing-cars.com)

**Schumacher**

71-73 Tenter Road  
Moulton Park  
Northampton  
NN3 6AX

## 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](http://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



Battery Charger



Steering Servo



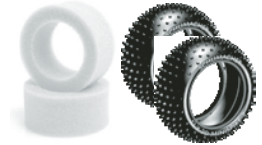
Electronic Speed Controller



Pro Tyre Glue



Polycarbonate Paint



Tyres and Inserts

## TOOLS REQUIRED

1.5mm Hex Driver - U2789

2.0mm Hex Driver - U2790

2.5mm Hex Driver - U2791

3.0mm Hex Driver - U2792

5.5mm M3 Nut Driver - U2795

7.0mm M4 Nut Driver - U2796

Body Reamer - U2818

Pliers - CR528

Side Cutters - CR527

Soldering Iron - CR275

Solder - U3107

Curved Scissors - CR044



## ICON KEYS

**AXLE GREASE** Axle Grease - Pot - U1300

**THREAD LOCK** CORE RC Medium Thread Lock 3ml - CR520

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



Caution/Important note. Please read.



Left-Hand Side of car



Right-Hand Side of car



Additional information that will help you build a faster race car.



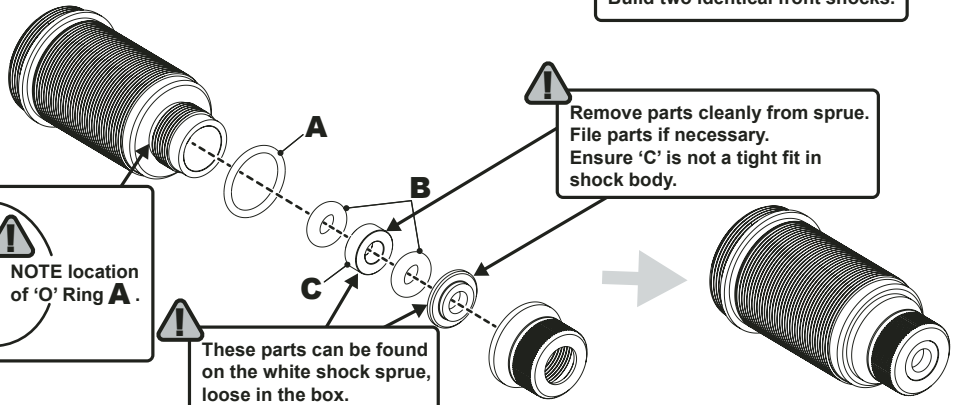
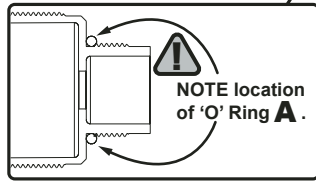
Set up Sheet - Refer to page 40.





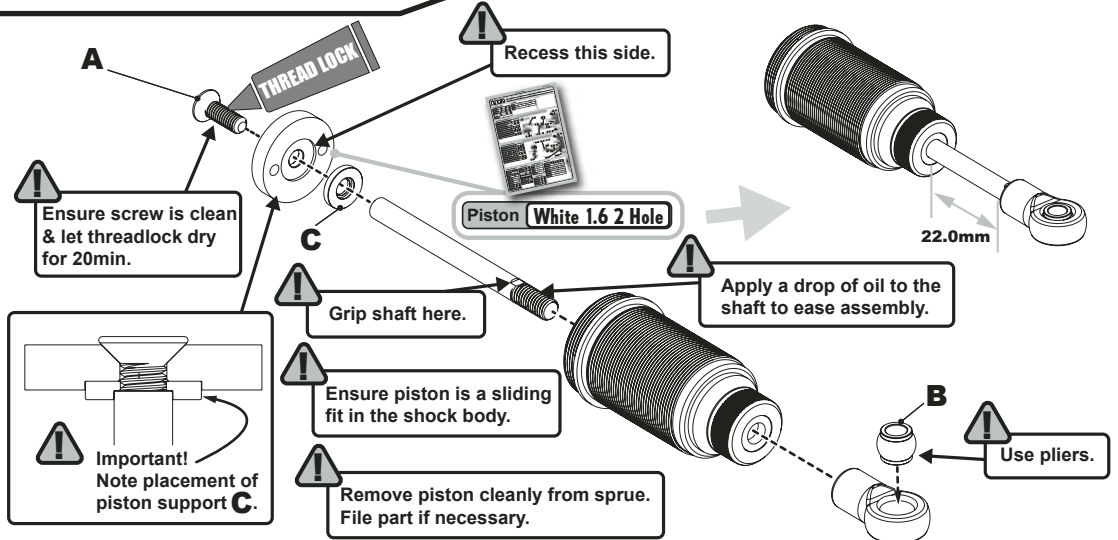
### BAG A - Step 01

- A x2**  
7.0x 1.0 Black 'O' Ring
- B x4**  
Red 'O' Ring
- C x2**  
Big Bore Shock Bush



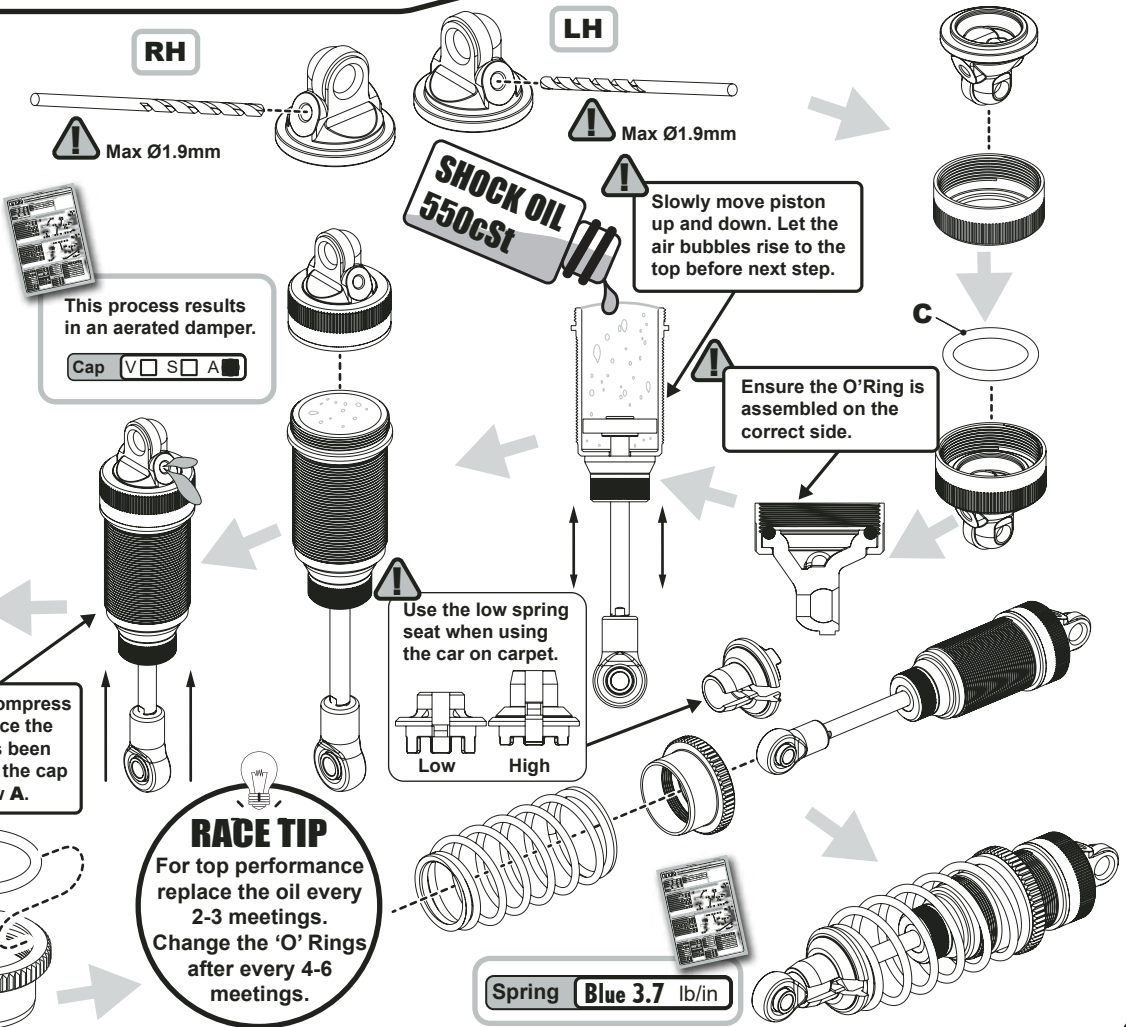
### BAG A - Step 02

- A x2**  
M 2.5x 8mm Csk Screw
- B x2**  
Rod End Ball
- C x2**  
Shock Piston Support



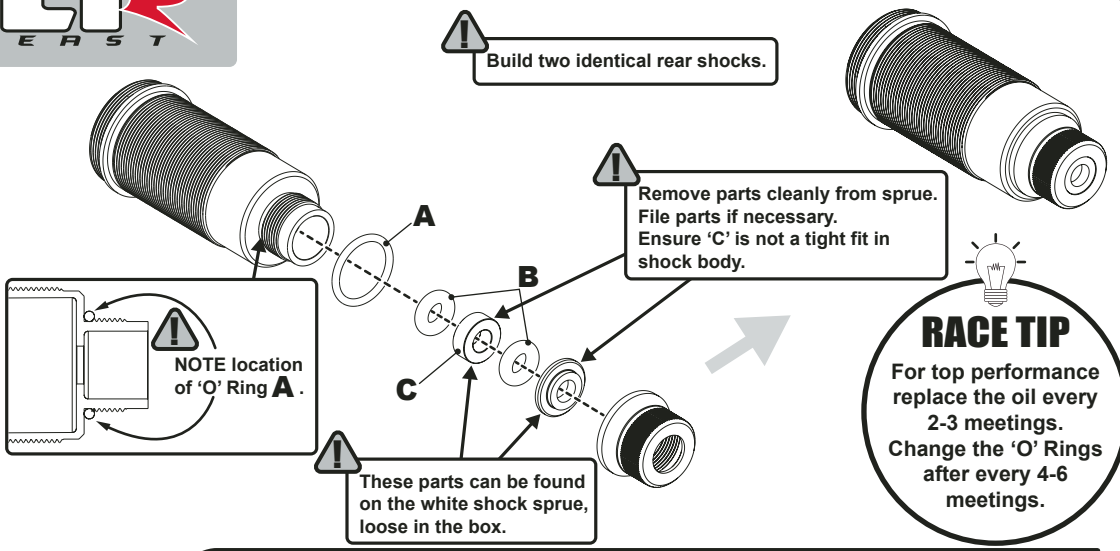
### BAG A - Step 03

- A x2**  
M2.5x 4 Button Hd Screw
- B x2**  
'O' Ring Ø15 x 1.6
- C x2**  
'O' Ring Ø12 x 1.6



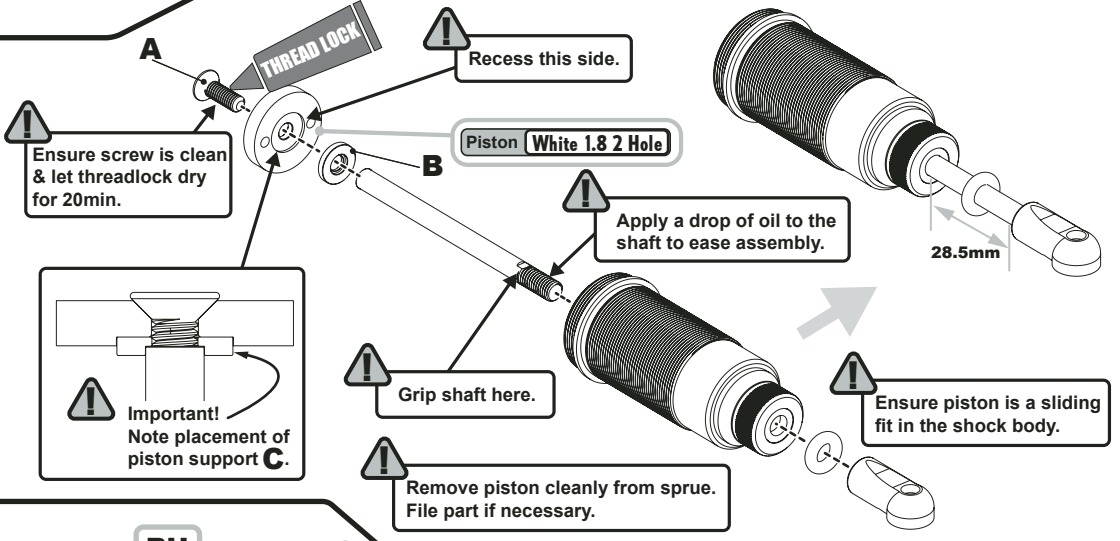
### BAG A - Step 04

- A x2**  
7.0x 1.0 Black 'O' Ring
- B x4**  
Red 'O' Ring
- C x2**  
Big Bore Shock Bush



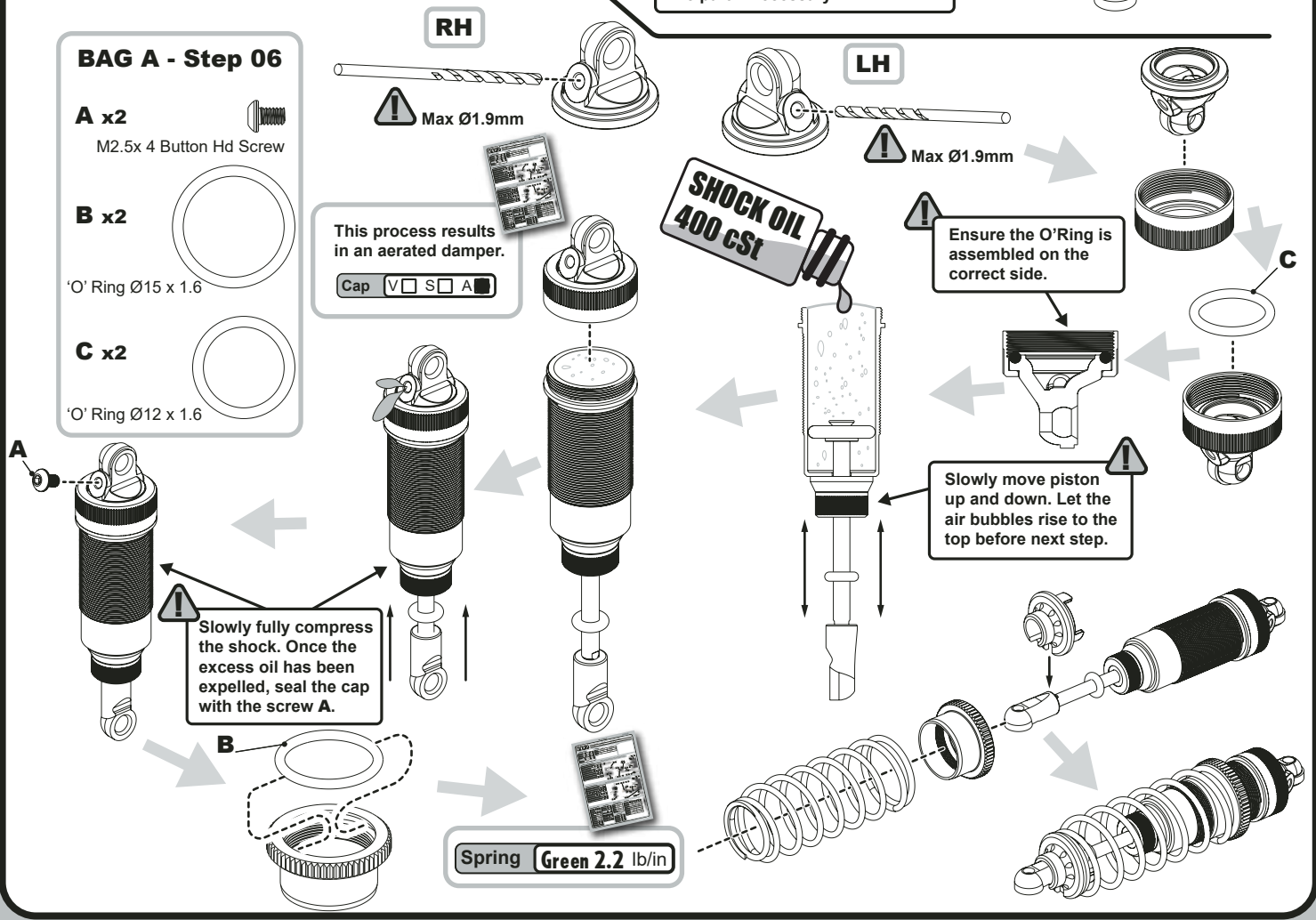
### BAG A - Step 05

- A x2**  
2.5x 8mm Csk Screw
- B x2**  
Shock Piston Support



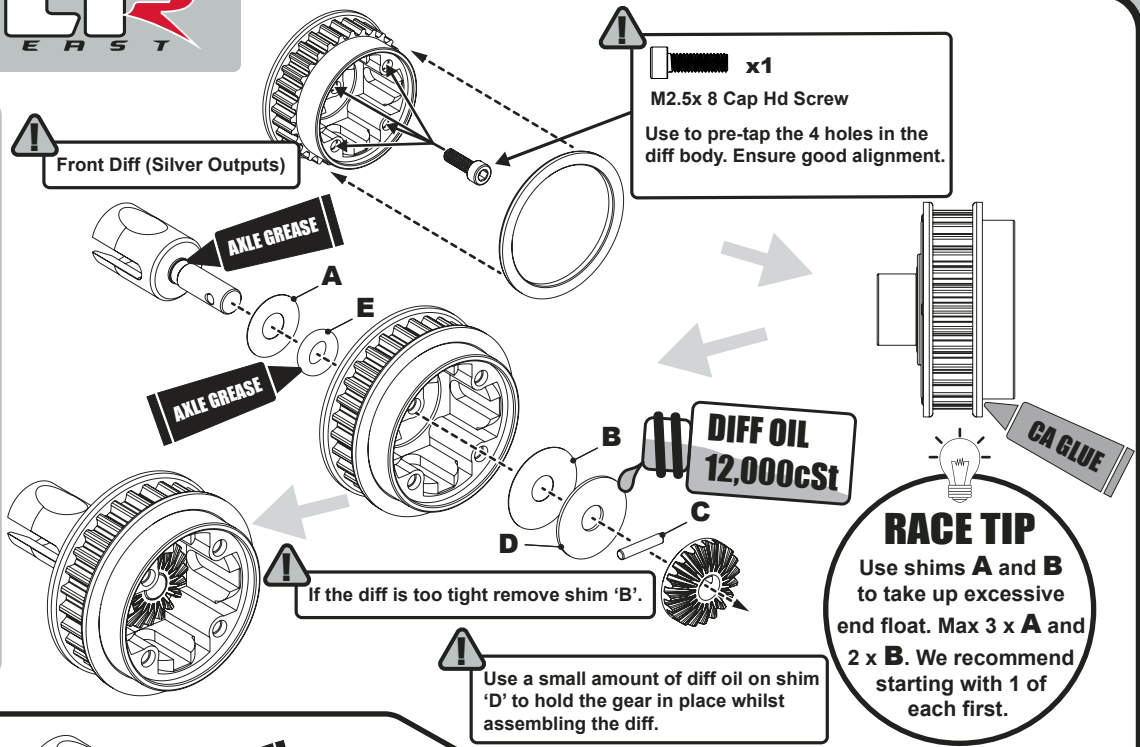
### BAG A - Step 06

- A x2**  
M2.5x 4 Button Hd Screw
- B x2**  
'O' Ring Ø15 x 1.6
- C x2**  
'O' Ring Ø12 x 1.6



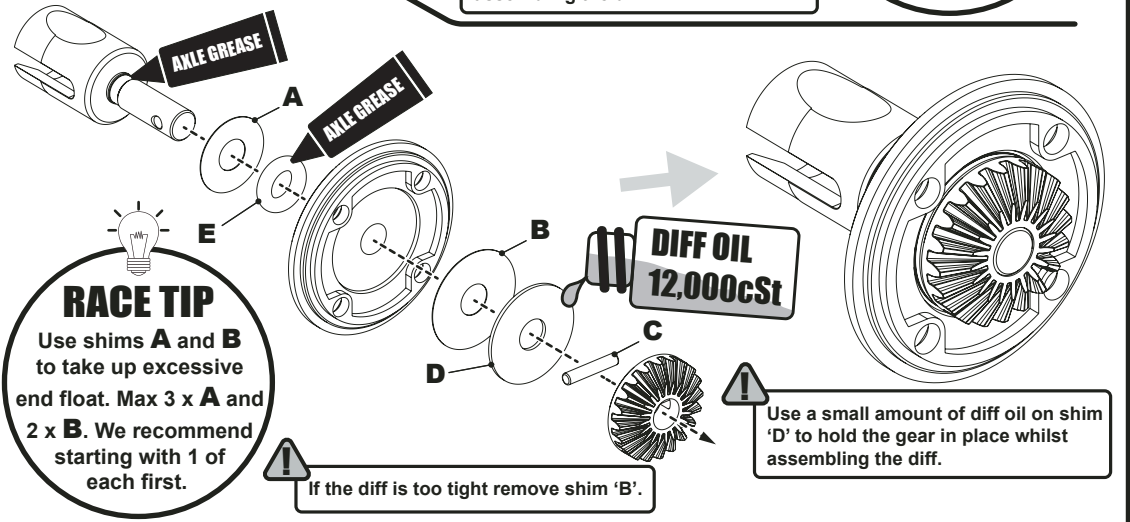
### BAG A - Step 07

- A x3**  
Ø5 x Ø7 x 0.1mm Shim
- B x2**  
Ø4 x Ø13 x 0.1mm Shim
- C x1**  
Ø1.5 x 7.8 Pin
- D x1**  
Ø4 x Ø13 x 0.5mm Shim
- E x1**  
'O' Ring Ø3.69 x 1.8



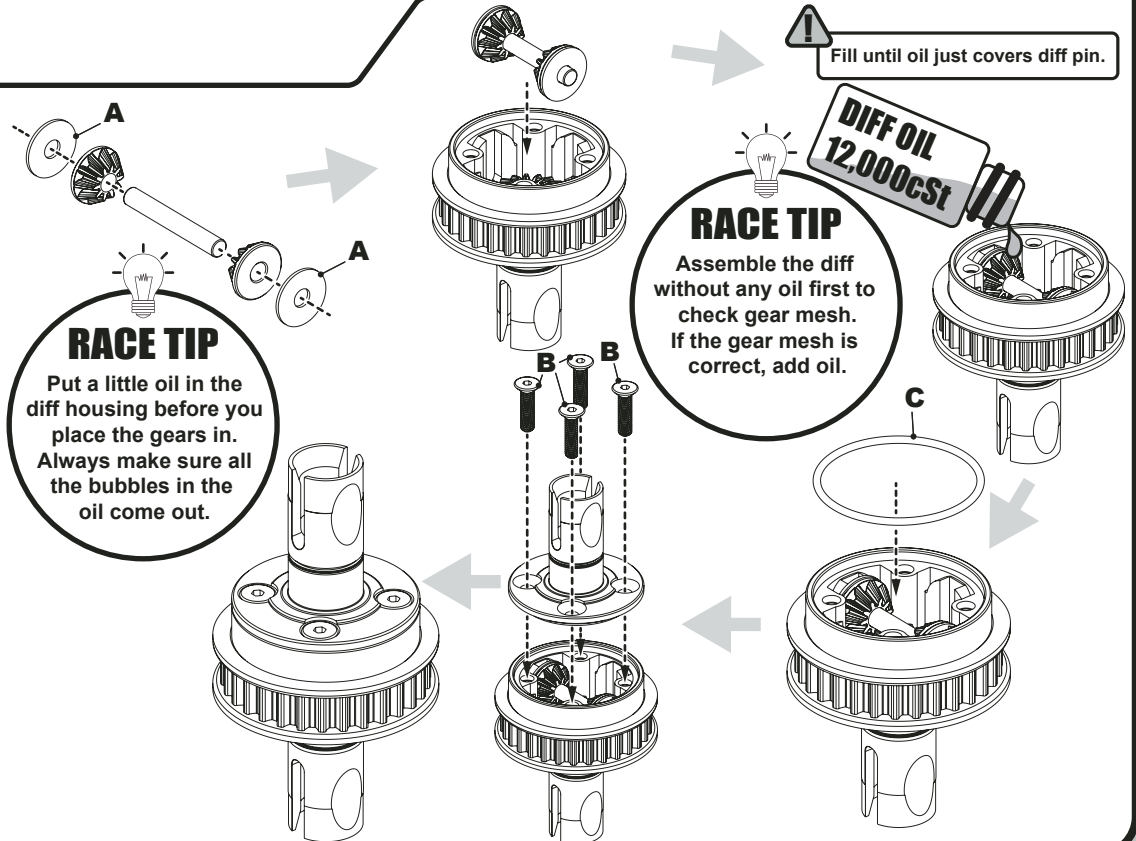
### BAG A - Step 08

- A x3**  
Ø5 x Ø7 x 0.1mm Shim
- B x2**  
Ø4 x Ø13 x 0.1mm Shim
- C x1**  
Ø1.5 x 7.8 Pin
- D x1**  
Ø4 x Ø13 x 0.5mm Shim
- E x1**  
'O' Ring Ø3.69 x 1.8



### BAG A - Step 09

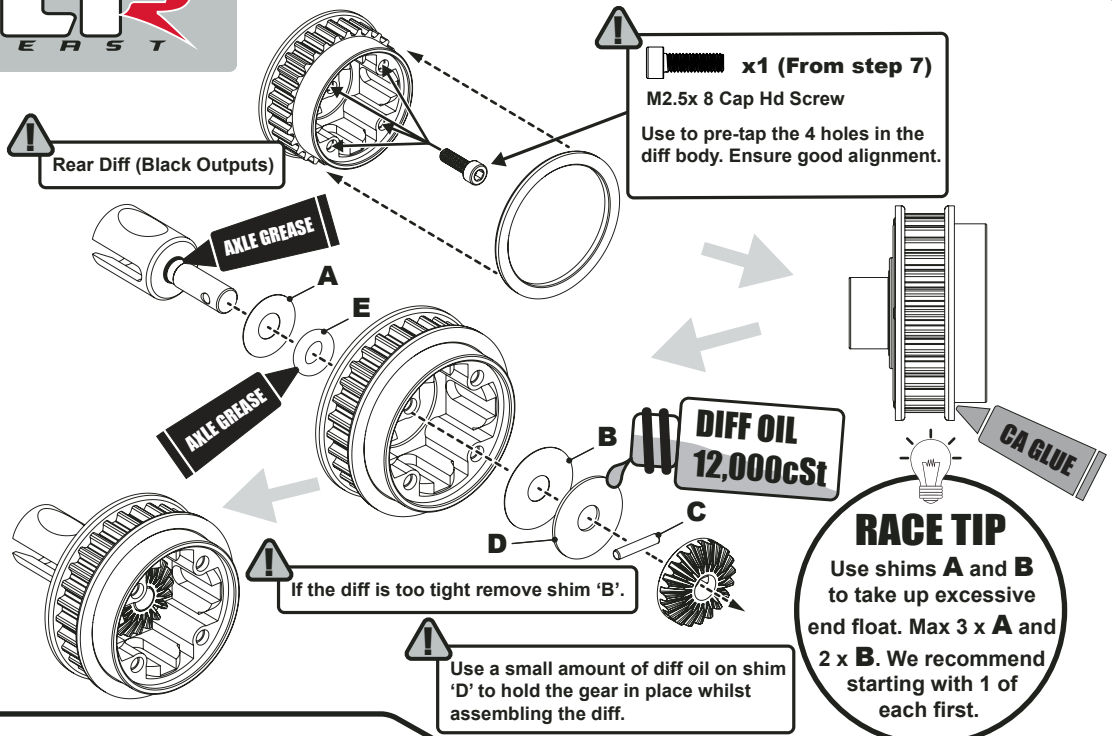
- A x2**  
Ø3 x Ø9 x 0.5mm Shim
- B x4**  
M2.5x 10 Csk Hd Screw
- C x1**  
'O' Ring Ø21 x 1.0





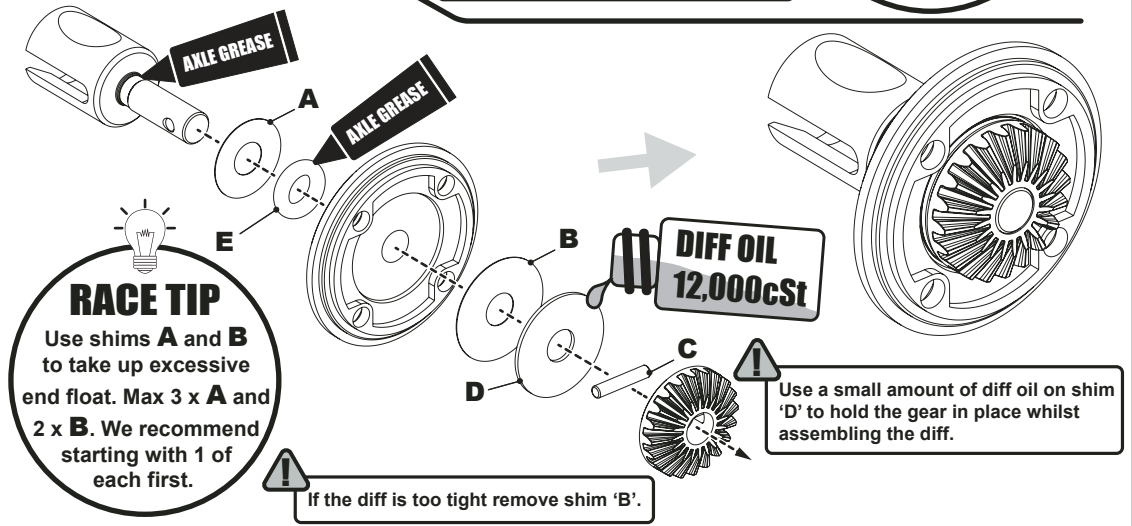
## BAG A - Step 10

- A x3**  
Ø5 x Ø7 x 0.1mm Shim
- B x2**  
Ø4 x Ø13 x 0.1mm Shim
- C x1**  
Ø1.5 x 7.8 Pin
- D x1**  
Ø4 x Ø13 x 0.5mm Shim
- E x1**  
'O' Ring Ø3.69 x 1.8



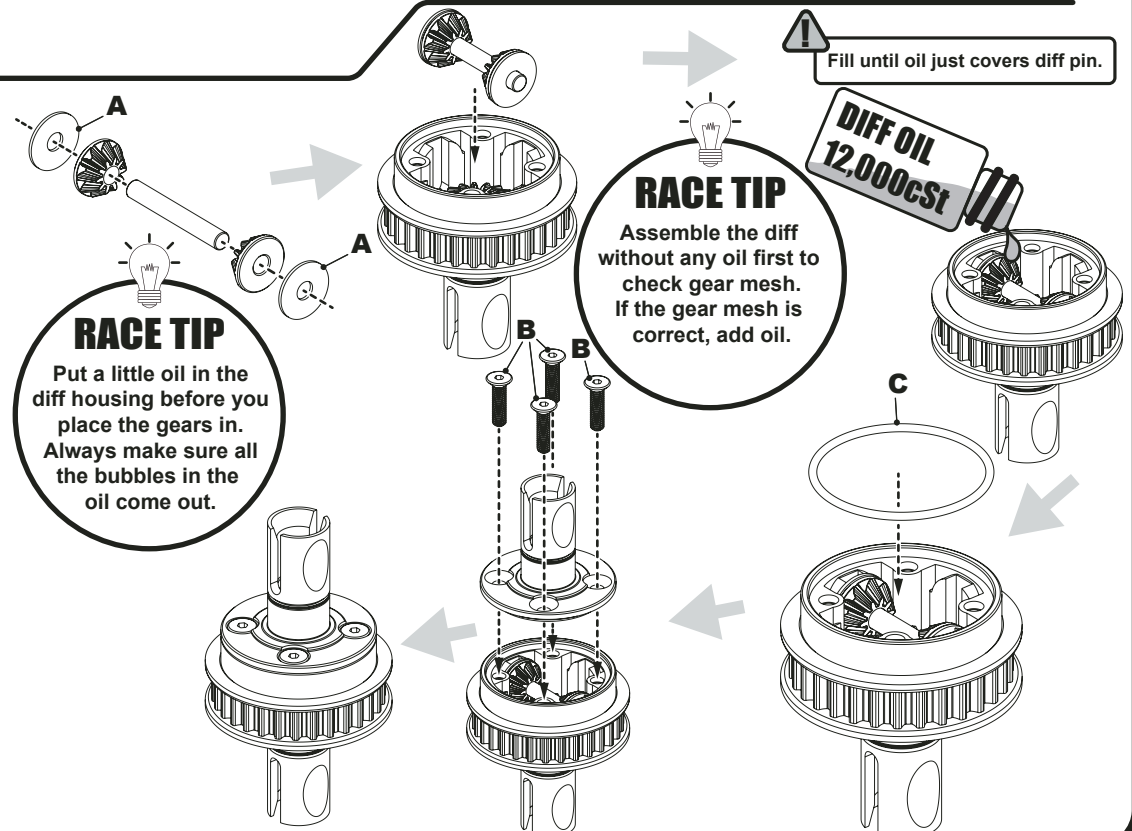
## BAG B - Step 11

- A x3**  
Ø5 x Ø7 x 0.1mm Shim
- B x2**  
Ø4 x Ø13 x 0.1mm Shim
- C x1**  
Ø1.5 x 7.8 Pin
- D x1**  
Ø4 x Ø13 x 0.5mm Shim
- E x1**  
'O' Ring Ø3.69 x 1.8



## BAG B - Step 12

- A x2**  
Ø3 x Ø9 x 0.5mm Shim
- B x4**  
M2.5x 10 Csk Hd Screw
- C x1**  
'O' Ring Ø21 x 1.0





## BAG B - Step 13a

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

RH Thread      LH Thread

RH Thread      LH Thread

Shorter  
Longer

**!** 52mm turnbuckle. Front Camber Link.

## Front Camber Link

35.0mm

**!** Make a pair.

## BAG B - Step 13b

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

RH Thread      LH Thread

RH Thread      LH Thread

Shorter  
Longer

**!** 45mm turnbuckle. Steering Link.

## Steering Link

25.5mm

**!** Make a pair.

## BAG B - Step 13c

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

RH Thread      LH Thread

RH Thread      LH Thread

Shorter  
Longer

**!** 56mm turnbuckle. Rear Camber Link.

## Rear Camber Link

37.5mm

**!** Make a pair.

## BAG B - Step 13d

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

RH Thread      LH Thread

RH Thread      LH Thread







Shorter  
Longer

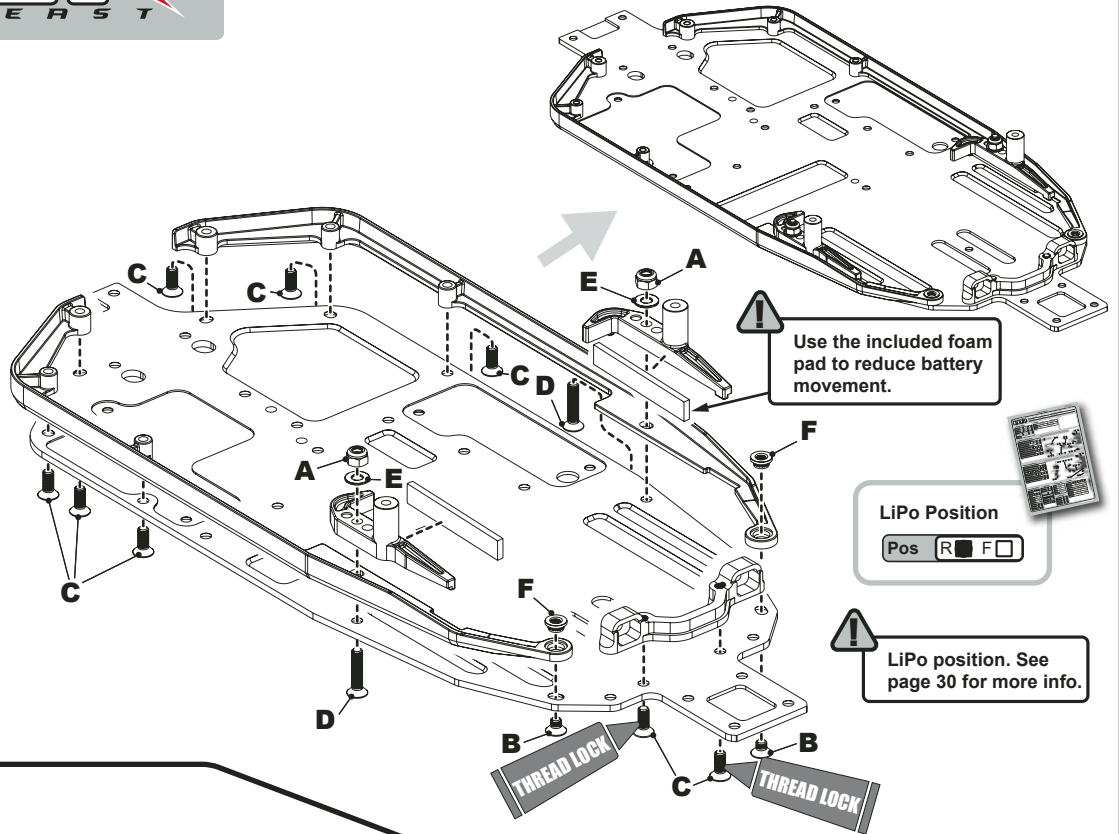
**!** 24mm turnbuckle. Servo Link.

## Servo Link




5.64mm

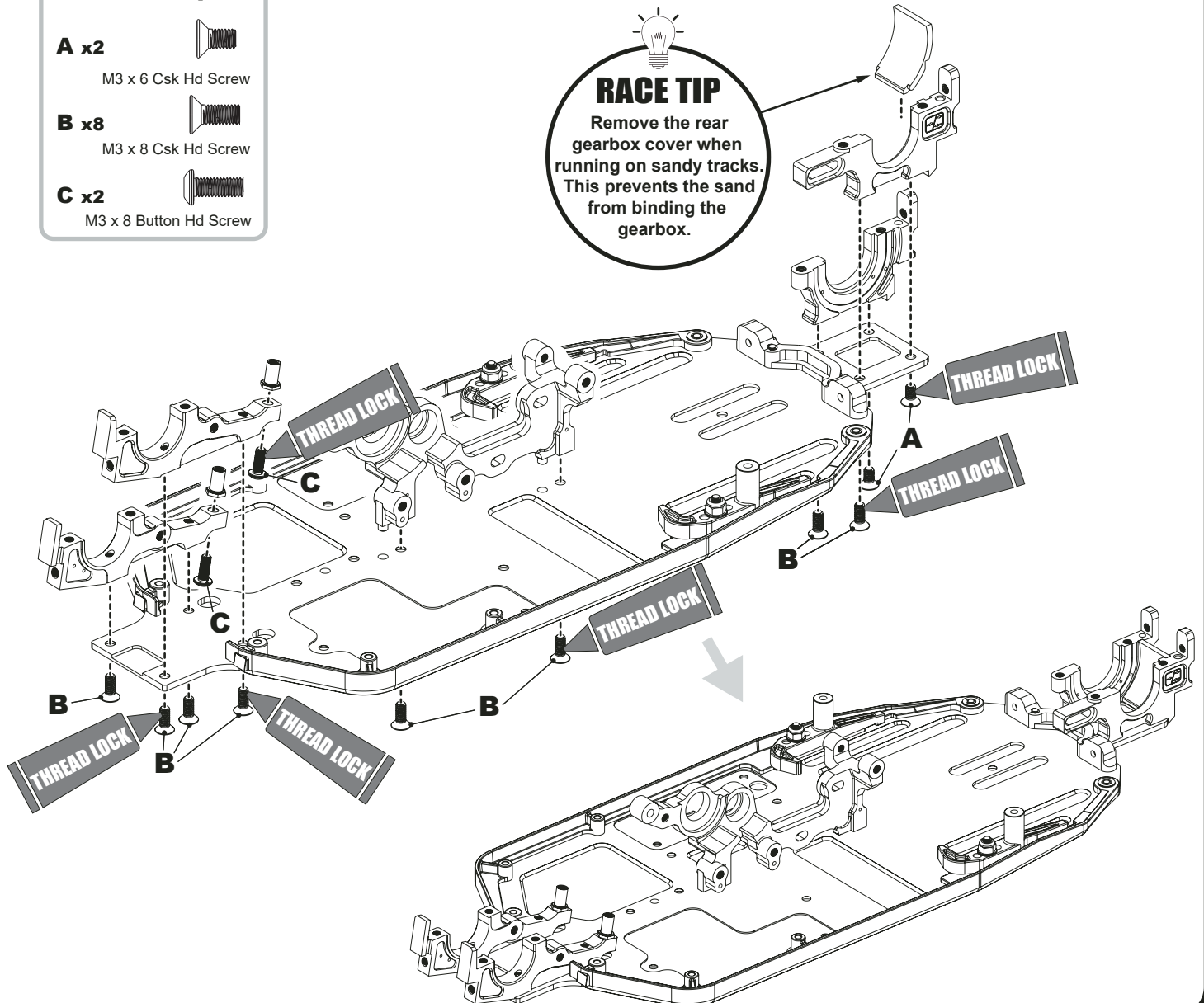
## BAG B - Step 14

- A x2**  M3 Nyloc
- B x2**  M3 x 5 Csk Hd Screw
- C x8**  M3 x 8 Csk Hd Screw
- D x2**  M3 x 14 Csk Hd Screw
- E x2**  M3 Washer
- F x2**  M3 Thread Insert











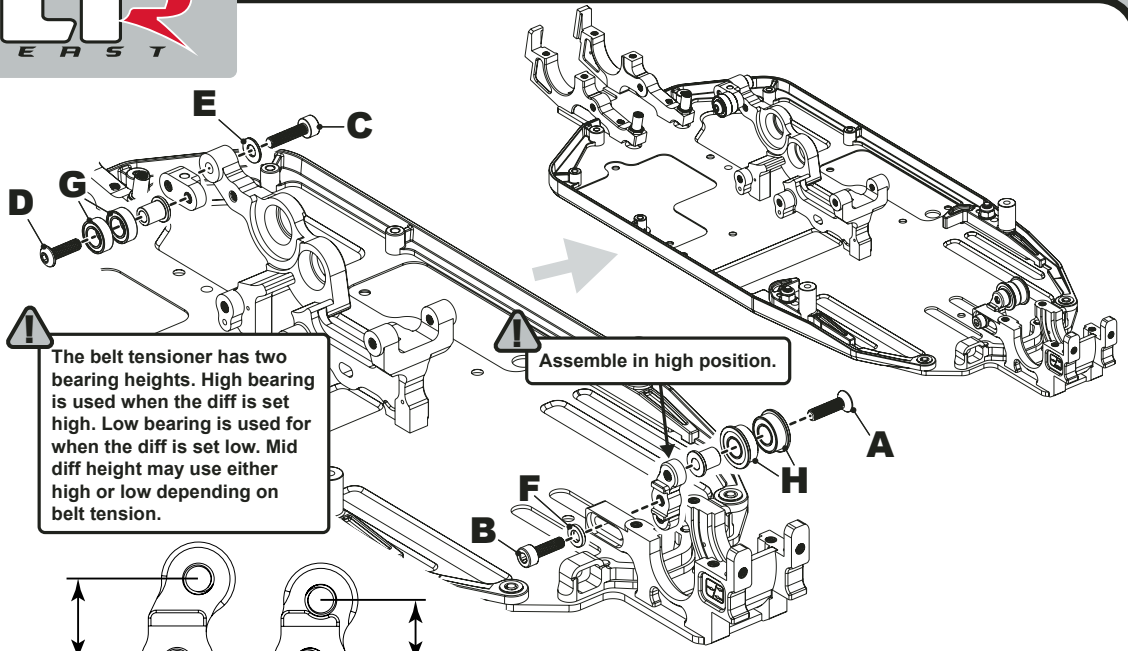
## BAG B - Step 15

- A x2**  M3 x 6 Csk Hd Screw
- B x8**  M3 x 8 Csk Hd Screw
- C x2**  M3 x 8 Button Hd Screw

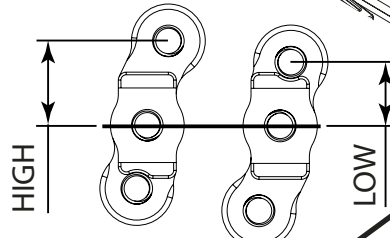


## BAG B - Step 16

- A x1**  M3 x 12 Csk Hd Screw
- B x1**  M3 x 10 Cap Hd Screw
- C x1**  M3 x 12 Cap Hd Screw
- D x1**  M3 x 10 Button Hd Screw
- E x1**  M3 Washer
- F x1**  Black Alloy Washer 1.0mm
- G x2**  ø5 x ø9 x 3mm Bearing
- H x2**  ø5 x ø10 x 4mm FI Bearing



**!** The belt tensioner has two bearing heights. High bearing is used when the diff is set high. Low bearing is used for when the diff is set low. Mid diff height may use either high or low depending on belt tension.







**!** Assemble in high position.

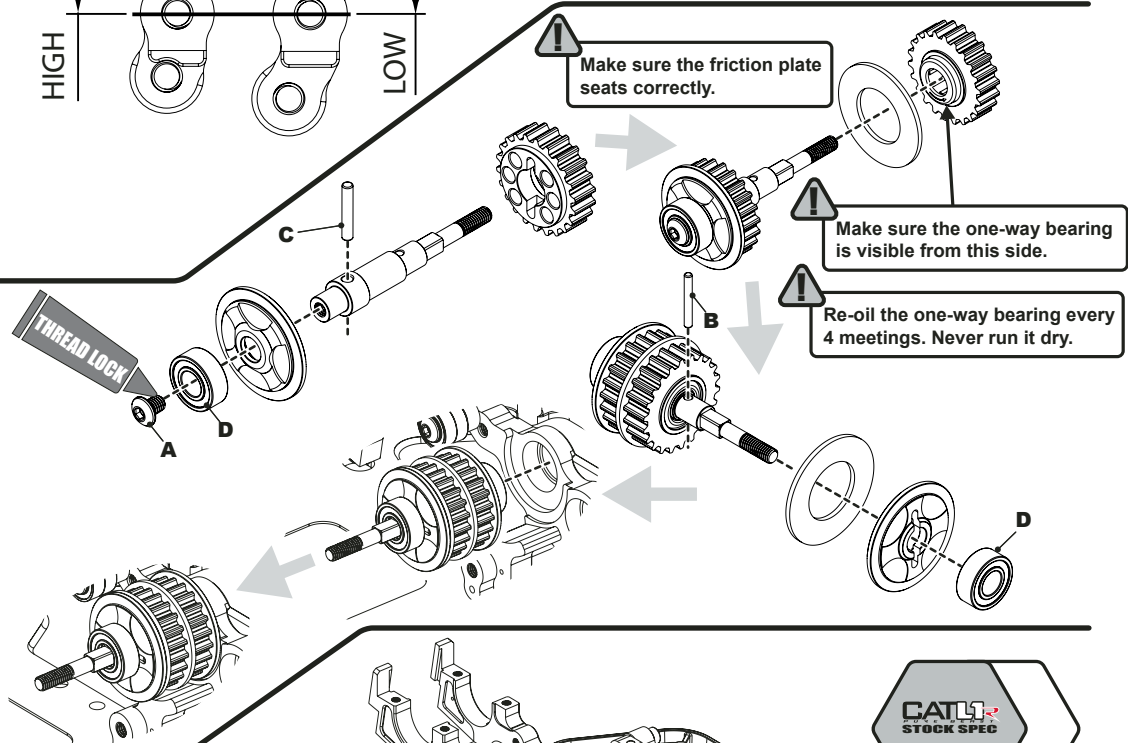
**!** Make sure the friction plate seats correctly.

**!** Make sure the one-way bearing is visible from this side.




**!** Re-oil the one-way bearing every 4 meetings. Never run it dry.

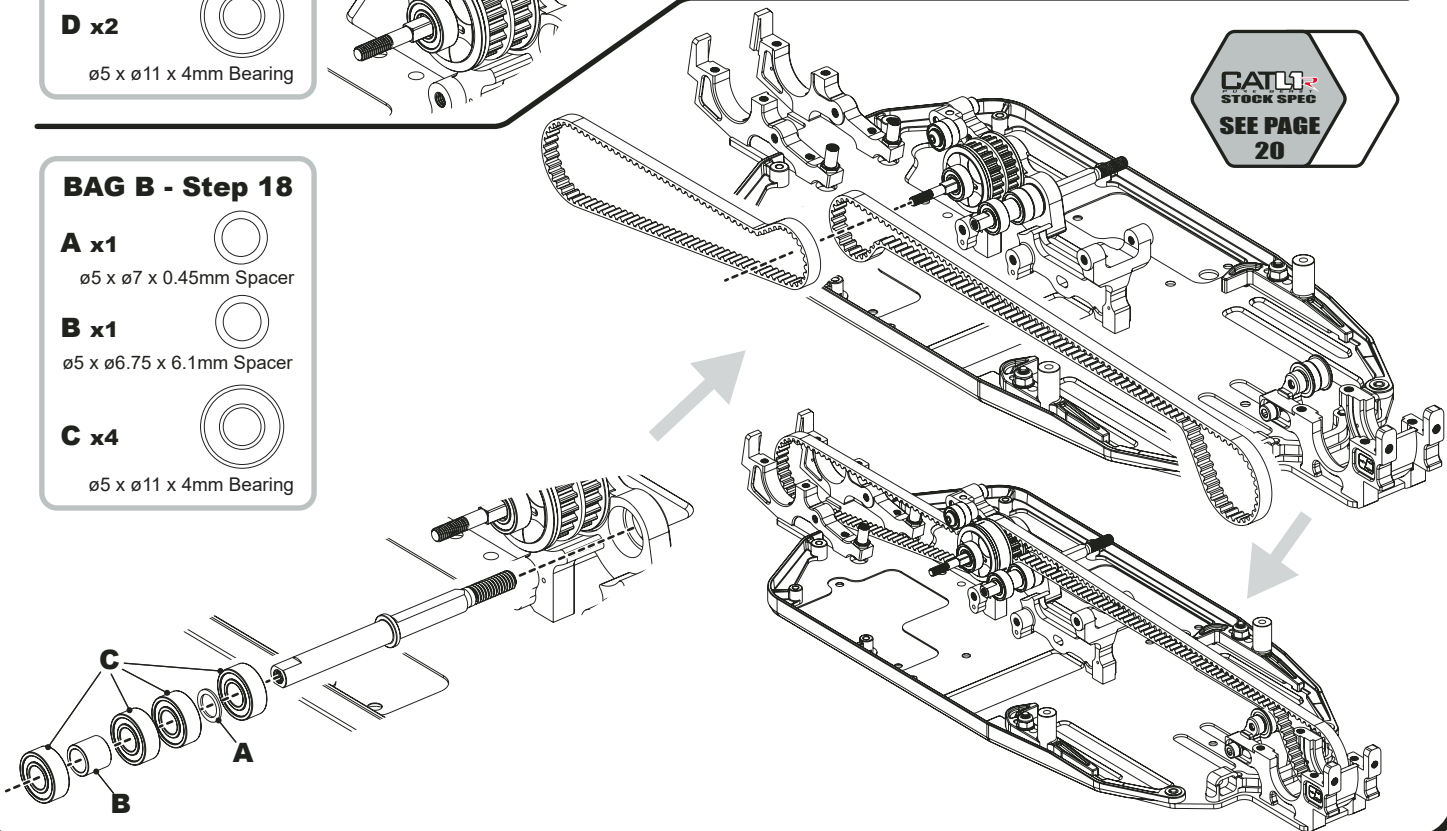
## BAG B - Step 17

- A x1**  M3 x 4 Button Hd Screw
- B x1**  ø1.5 x 11.8mm Pin
- C x1**  ø2.0 x 11.8mm Pin
- D x2**  ø5 x ø11 x 4mm Bearing



## BAG B - Step 18






- A x1**  ø5 x ø7 x 0.45mm Spacer
- B x1**  ø5 x ø6.75 x 6.1mm Spacer
- C x4**  ø5 x ø11 x 4mm Bearing

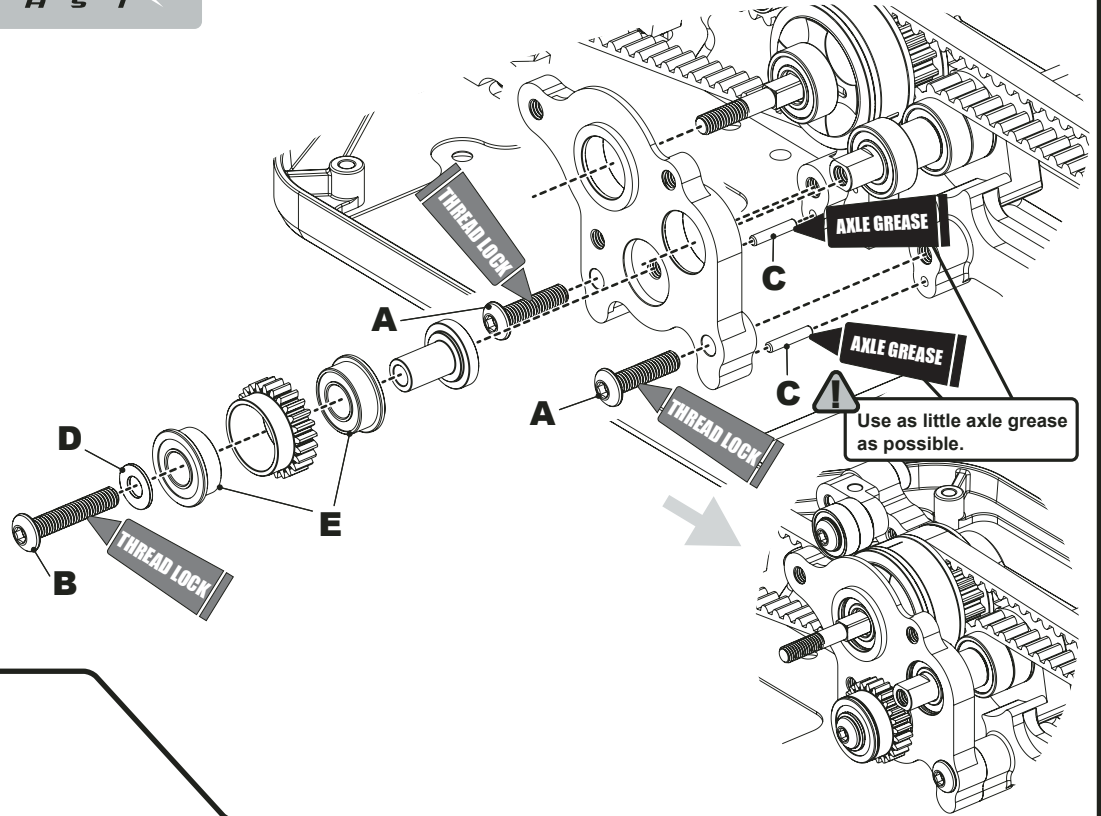


**CATLR**  
STOCK SPEC  
SEE PAGE  
20







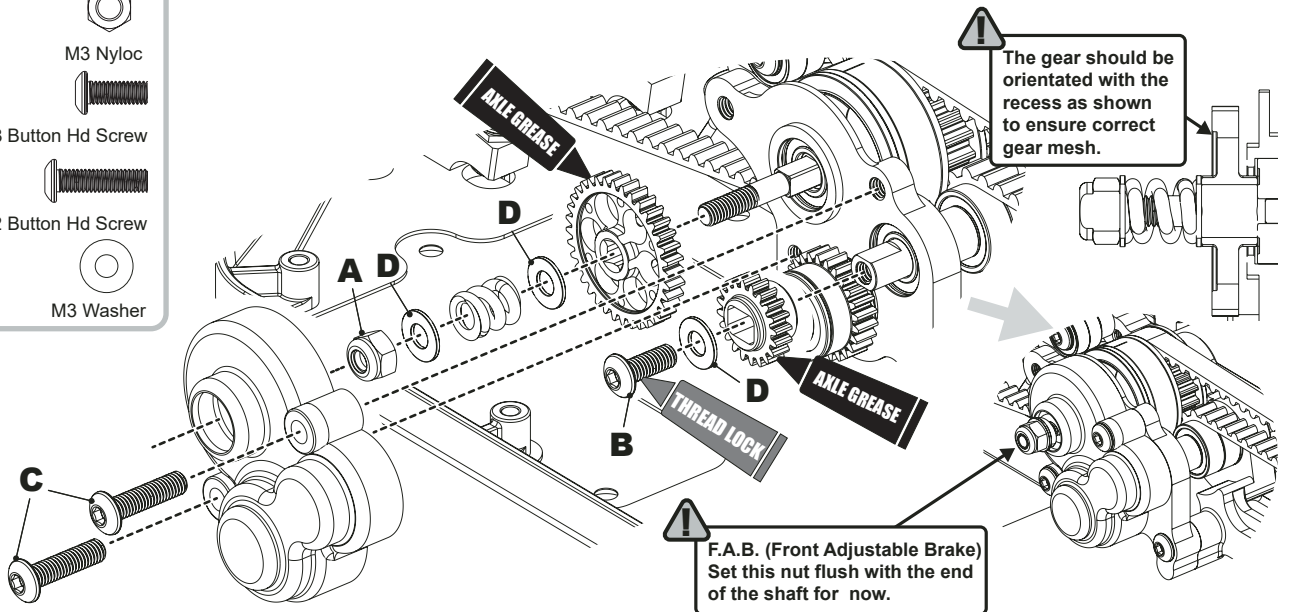
### BAG B - Step 19

- A x2**  M 3 x 12 Button Hd Screw
- B x1**  M 3 x 16 Button Hd Screw
- C x2**  ø1.5 x 7.8mm Pin
- D x1**  M3 Washer
- E x2**  ø5 x ø10 x 4mm FI Bearing





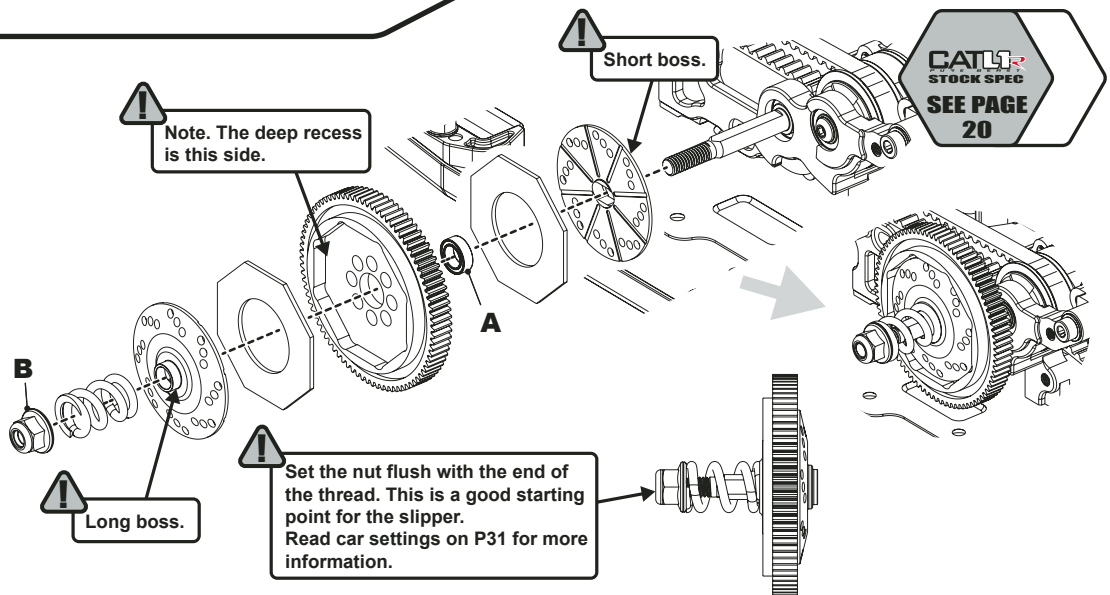
### BAG B - Step 20

- A x1**  M3 Nyloc
- B x1**  M3 x 8 Button Hd Screw
- C x2**  M3 x 12 Button Hd Screw
- D x3**  M3 Washer



### BAG C - Step 21

- A x1**  ø5 x ø8 x 2.5mm Bearing
- B x1**  M4 Flanged Nyloc





## BAG C - Step 22

**A x4**

ø10 x ø15 x 4mm Bearing

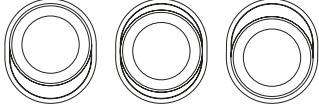
**B x8**

ø10 x ø12.5 x 0.20mm Shim

**HIGH**  
diff.

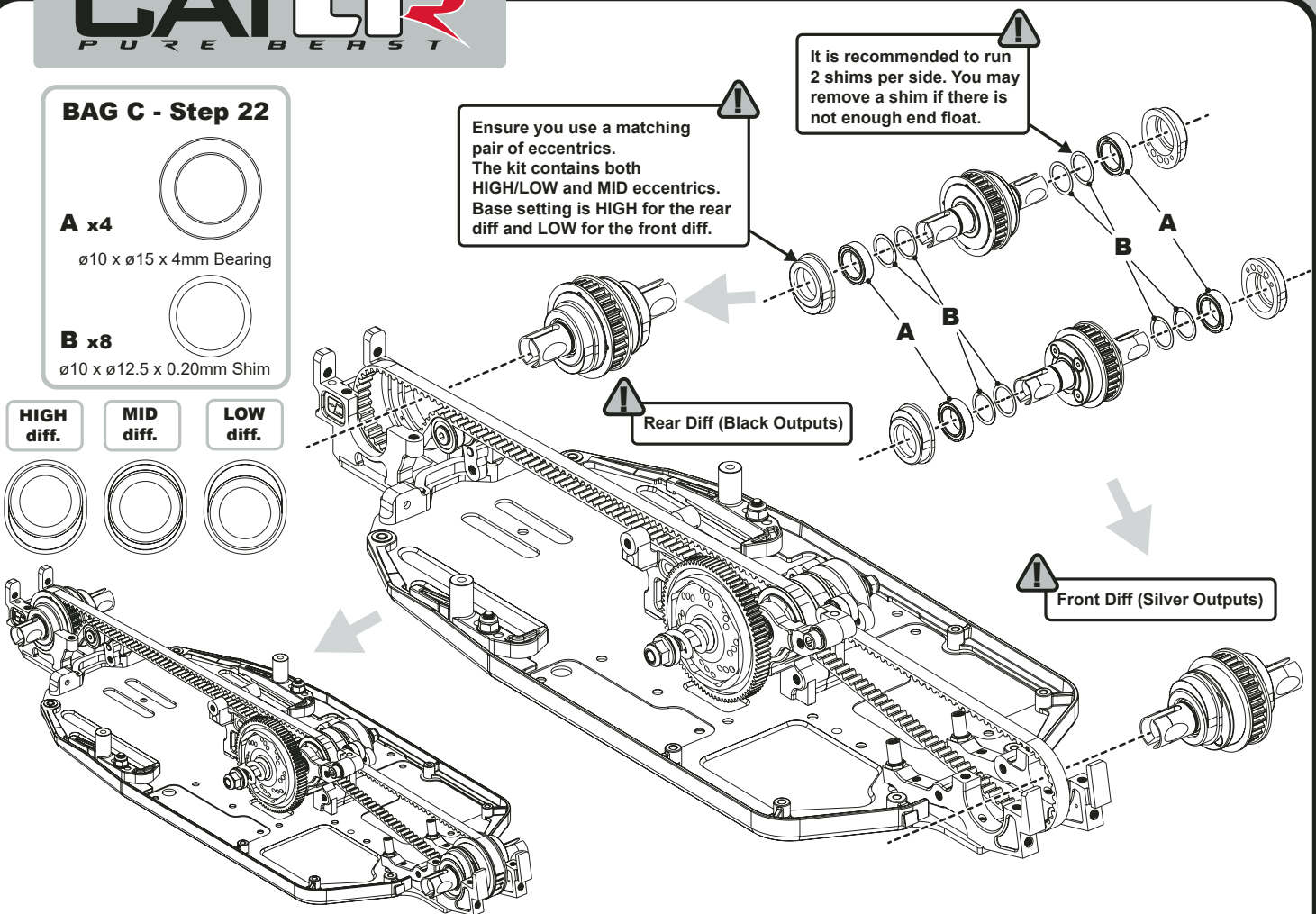
**MID**  
diff.

**LOW**  
diff.



Ensure you use a matching pair of eccentrics. The kit contains both HIGH/LOW and MID eccentrics. Base setting is HIGH for the rear diff and LOW for the front diff.

It is recommended to run 2 shims per side. You may remove a shim if there is not enough end float.



## BAG C - Step 23

**A x2**

M3 Nyloc

**B x2**

M3 x 10 Button Hd Screw

**C x2**

0.5mm Black Washer

**D x2**

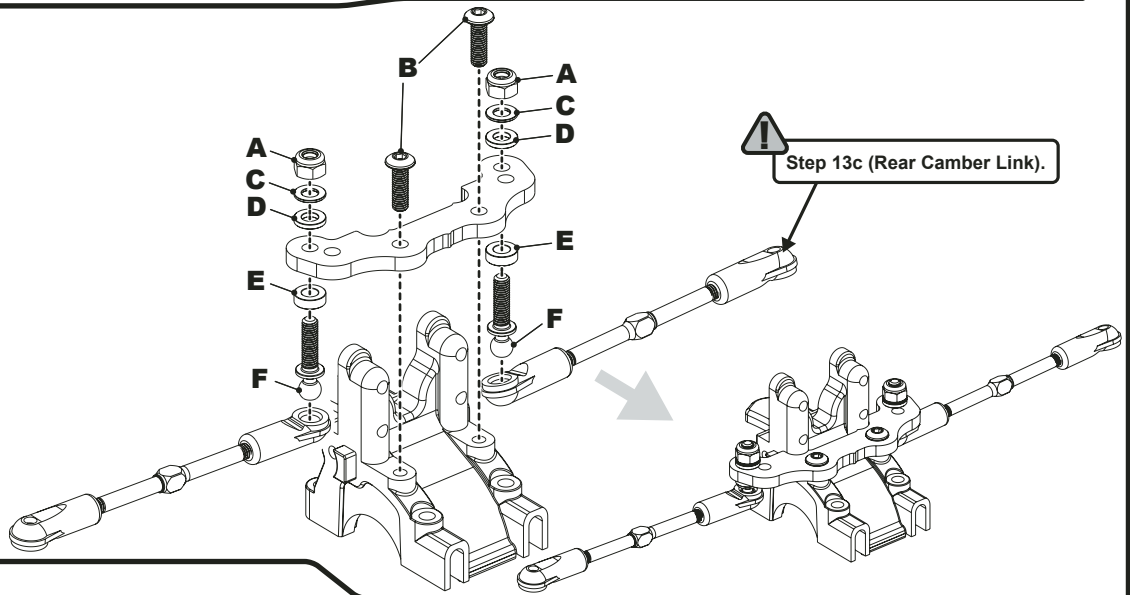
1.0mm Black Washer

**E x2**

2.0mm Black Washer

**F x2**

Ball Stud Ultra Long



## BAG C - Step 24

**A x4**

M3 Nyloc

**B x2**

M3 x 10 Button Hd Screw

**C x2**

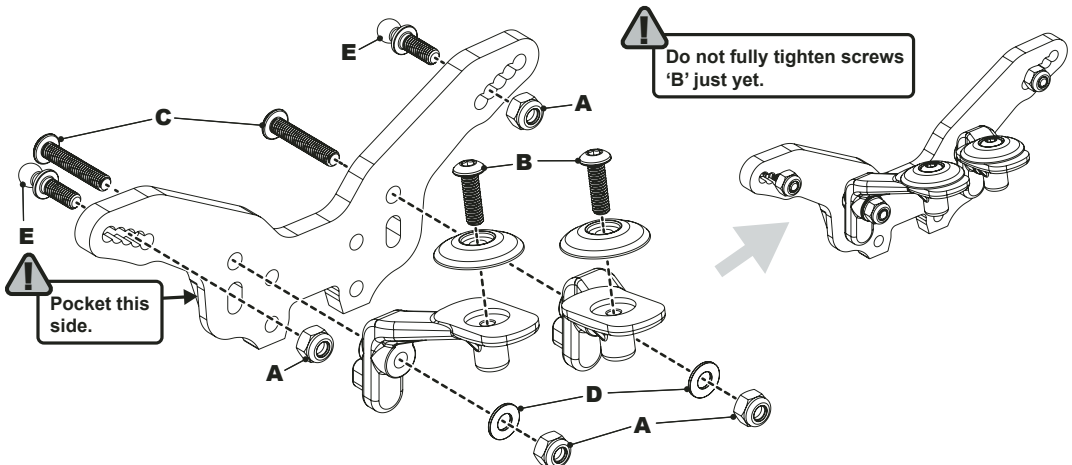
M3 x 16 Button Hd Screw

**D x2**

M3 Washer

**E x2**

Ball Stud Long



Do not fully tighten screws 'B' just yet.

Pocket this side.

## BAG C - Step 25

**A x4**



M3 Nyloc

**B x4**

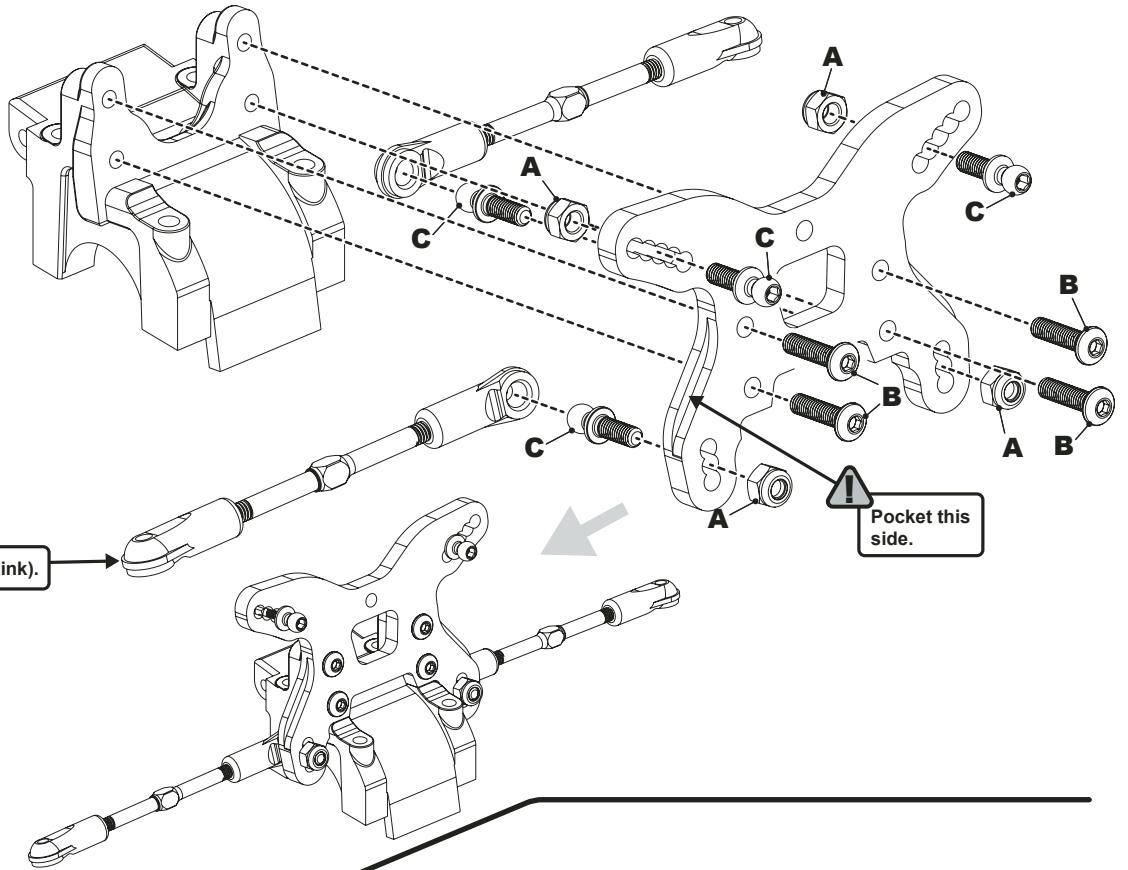


M3 x 12 Button Hd Screw

**C x4**



Ball Stud Long



! Step 13a (Front Camber Link).

! Pocket this side.

## BAG C - Step 26

**A x2**



M3 x 12 Button Hd Screw

**B x4**



M3 x 14 Button Hd Screw

**C x2**



M3 x 20 Button Hd Screw

**D x2**



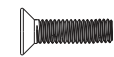
M3 x 25 Button Hd Screw

**E x2**

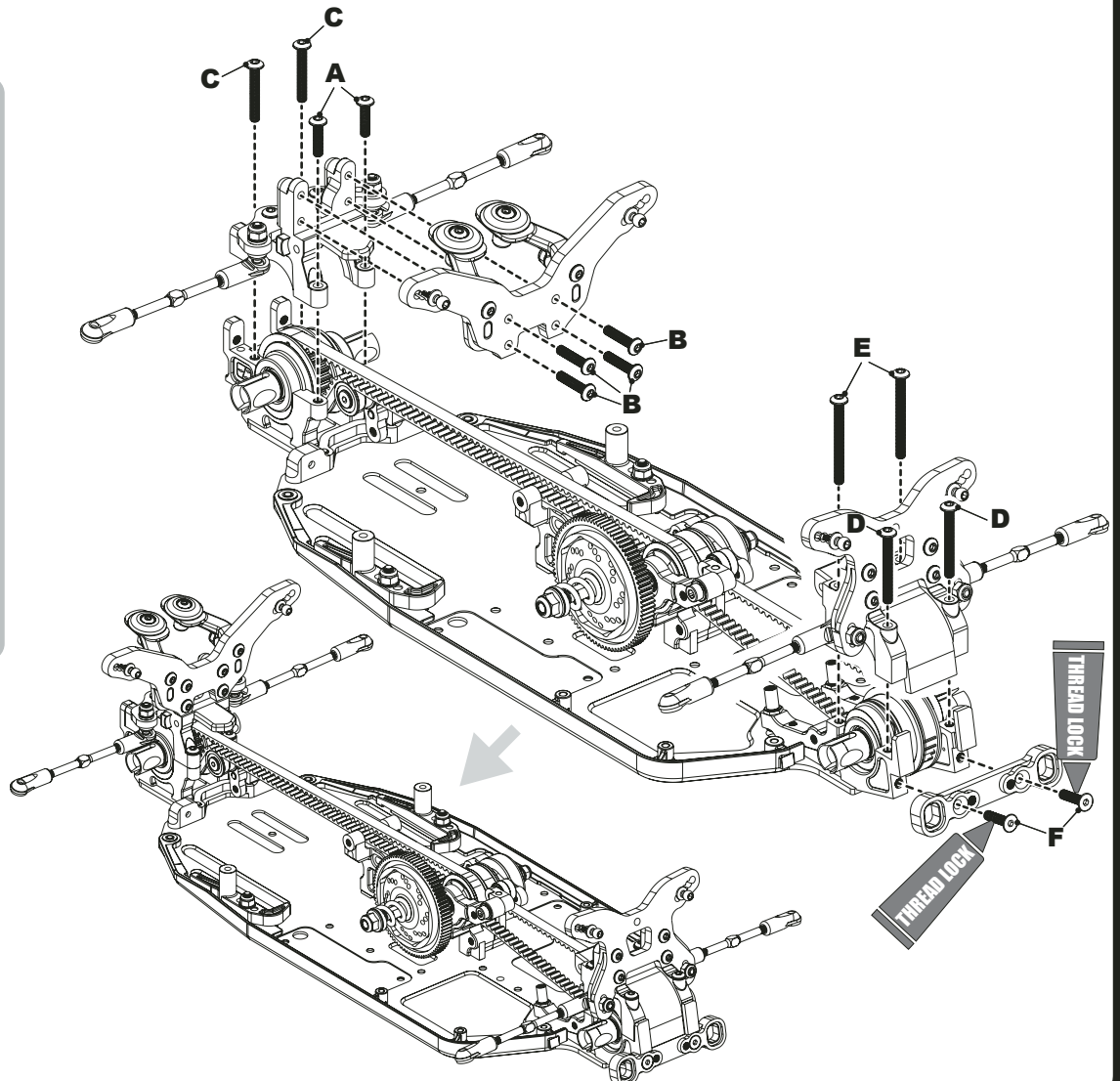


M3 x 30 Button Hd Screw

**F x2**





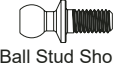

M3 x 12 Csk Hd Screw

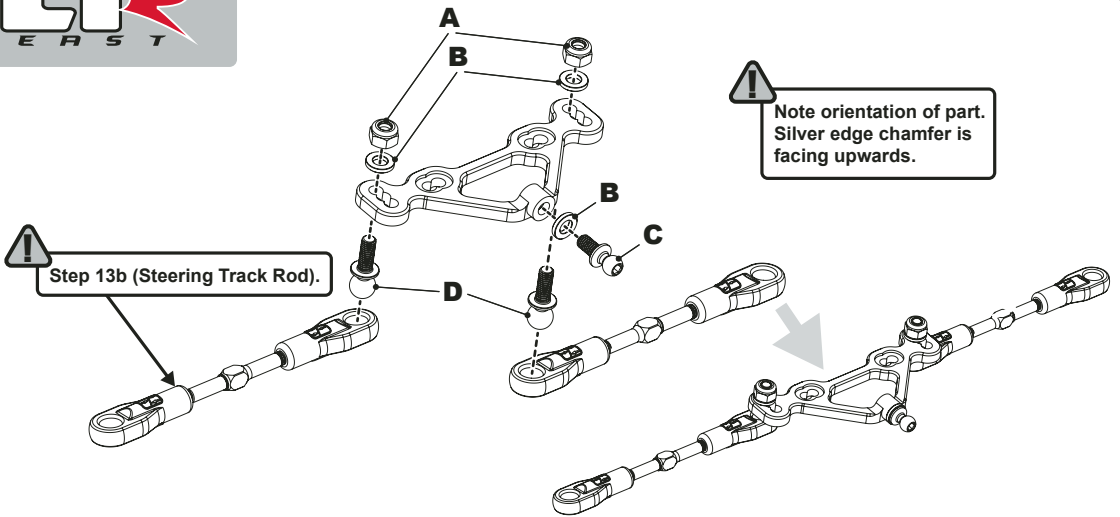


THREAD LOCK





THREAD LOCK

### BAG C - Step 27

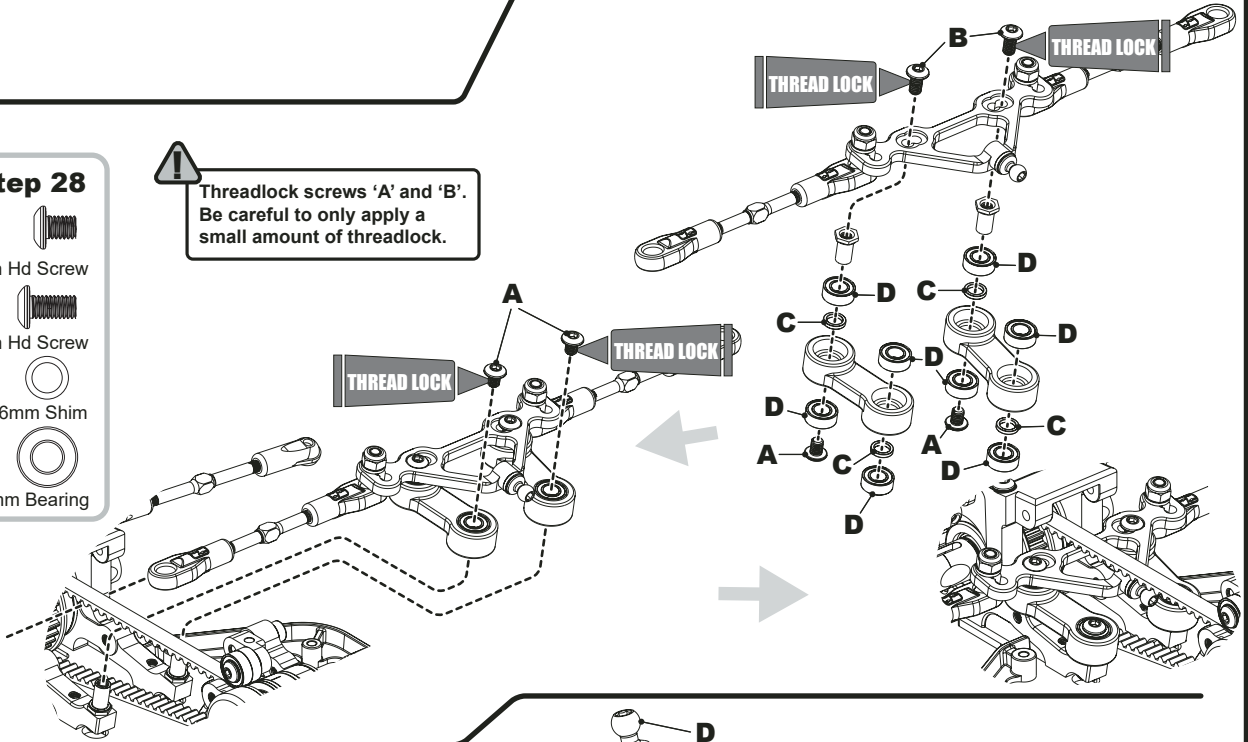
- A x2**  M3 Nyloc
- B x3**  1.0mm Black Washer
- C x1**  Ball Stud Short
- D x2**  5.5mm Ball Stud Long







### BAG C - Step 28

- A x4**  M3 x 4 Button Hd Screw
- B x2**  M3 x 6 Button Hd Screw
- C x4**  ø4 x ø5.6mm Shim
- D x8**  ø4 x ø8 x 3mm Bearing

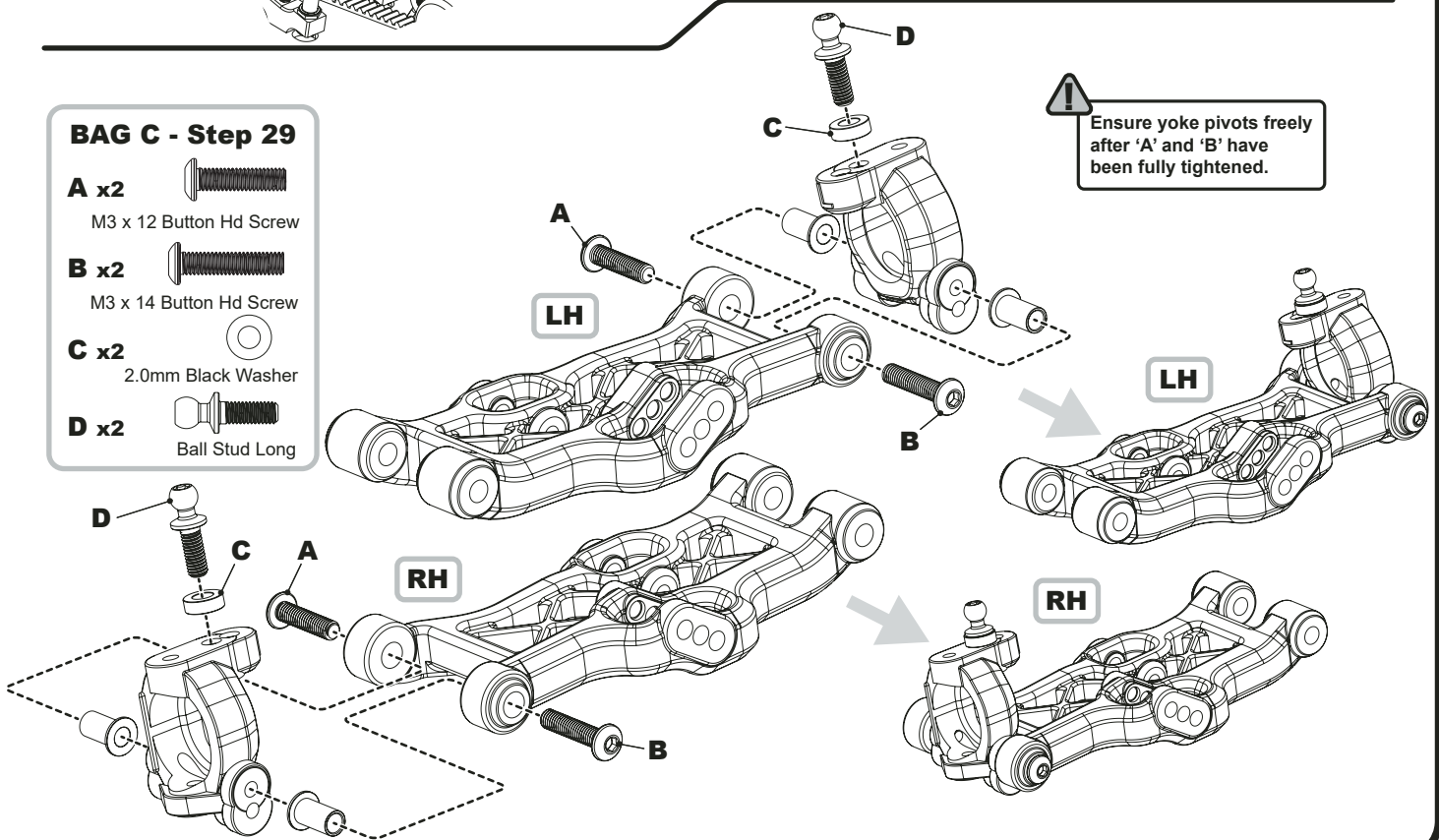
⚠ Threadlock screws 'A' and 'B'. Be careful to only apply a small amount of threadlock.



### BAG C - Step 29













- A x2**  M3 x 12 Button Hd Screw
- B x2**  M3 x 14 Button Hd Screw
- C x2**  2.0mm Black Washer
- D x2**  Ball Stud Long

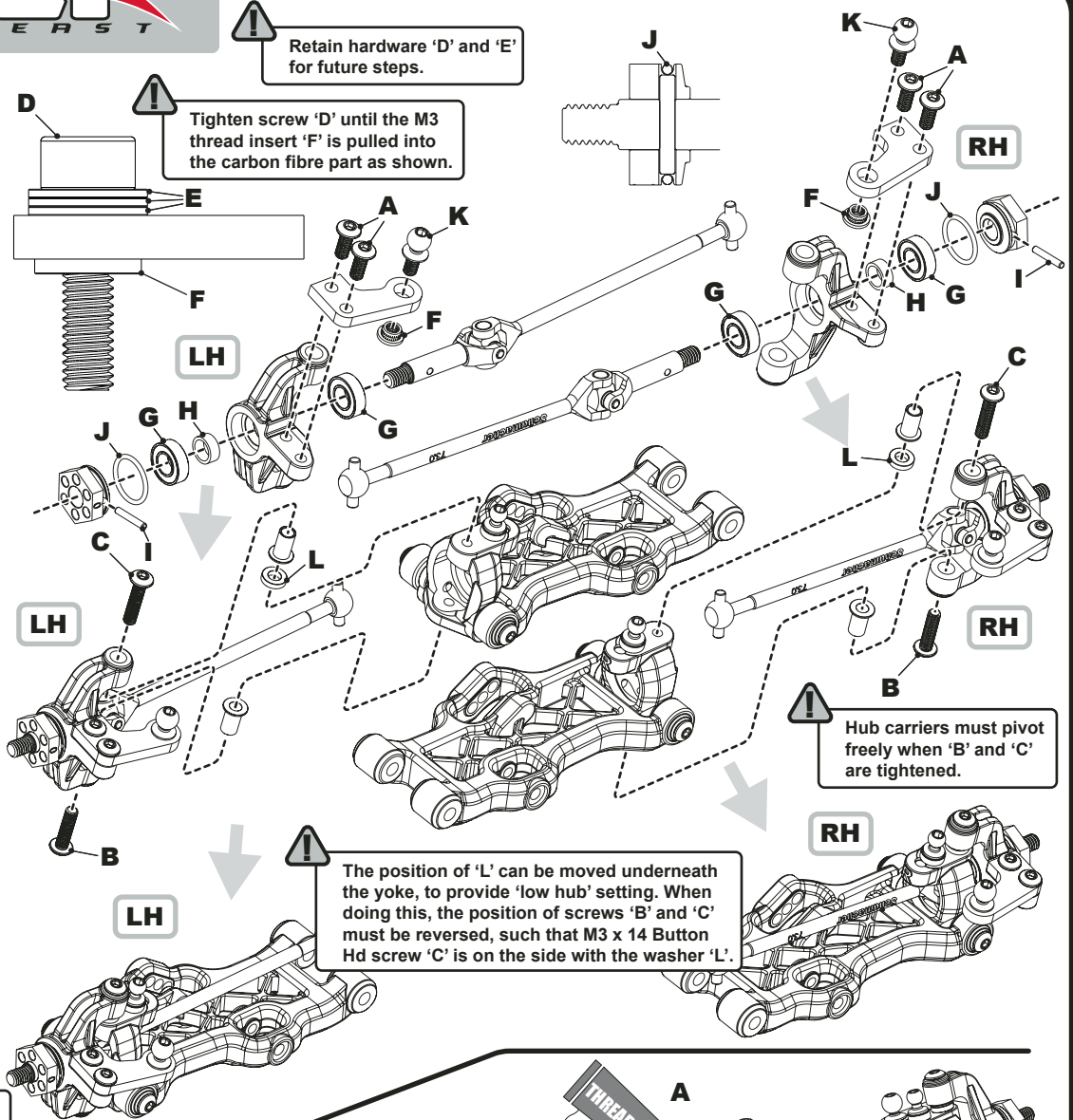
⚠ Ensure yoke pivots freely after 'A' and 'B' have been fully tightened.










## BAG C - Step 30

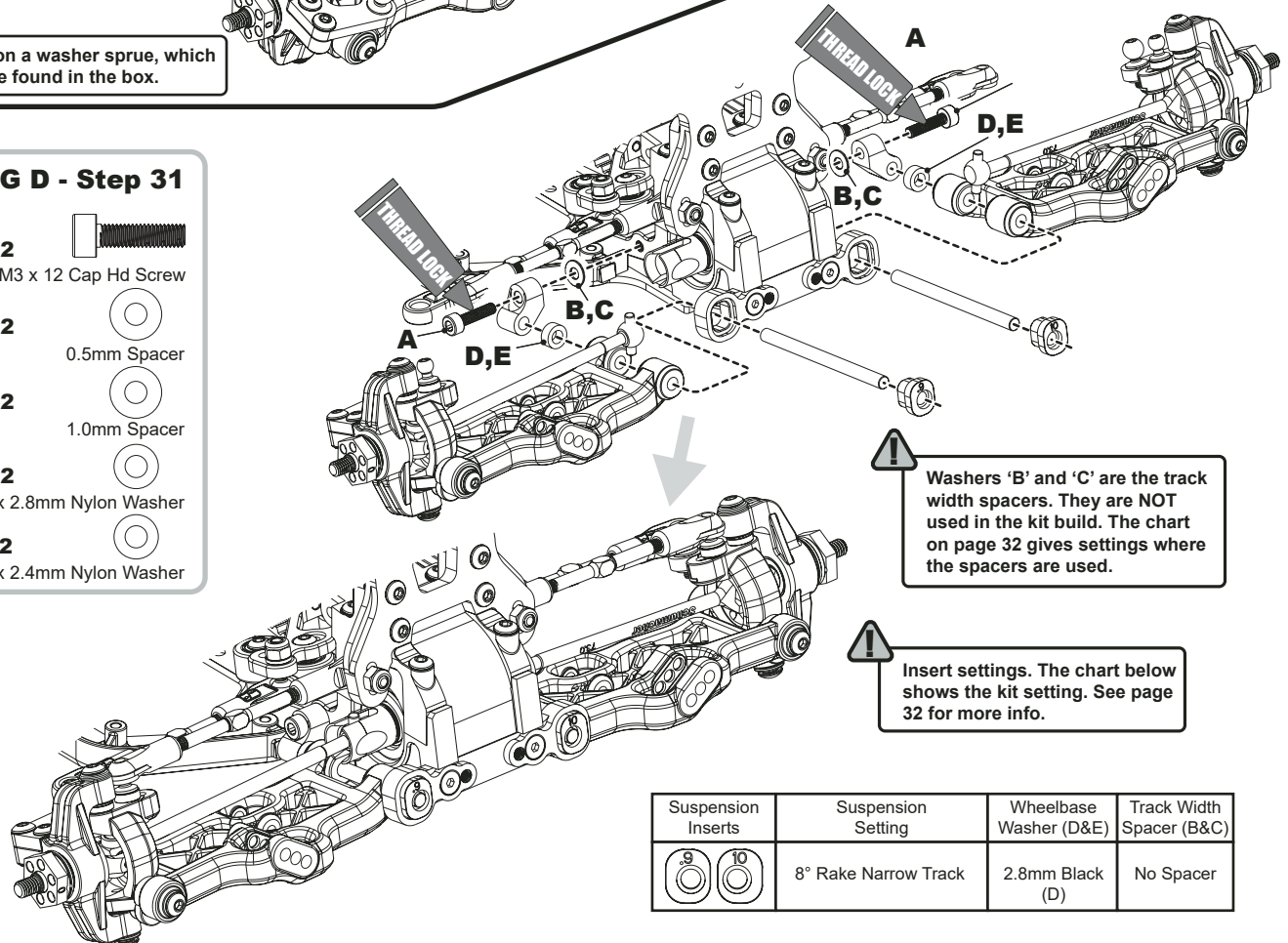
- A x4**  M3 x 8 Button Hd Screw
- B x2**  M3 x 12 Button Hd Screw
- C x2**  M3 x 14 Button Hd Screw
- D x1**  M3 x 12 Cap Hd Screw
- E x3**  M3 Washer
- F x2**  M3 Thread Insert
- G x4**  ø5 x ø10 x 3mm Bearing
- H x2**  ø5 x ø7 x 2.6mm Spacer
- I x2**  ø1.5 x 9.8mm Pin
- J x2**  O'Ring ø9 x 1.0
- K x2**  5.5mm Ball Stud Short
- L x2**  Plastic Washer 1.5mm





! 'L' is on a washer sprue, which can be found in the box.

## BAG D - Step 31






- A x2**  M3 x 12 Cap Hd Screw
- B x2**  0.5mm Spacer
- C x2**  1.0mm Spacer
- D x2**  ø3.5 x 2.8mm Nylon Washer
- E x2**  ø3.5 x 2.4mm Nylon Washer

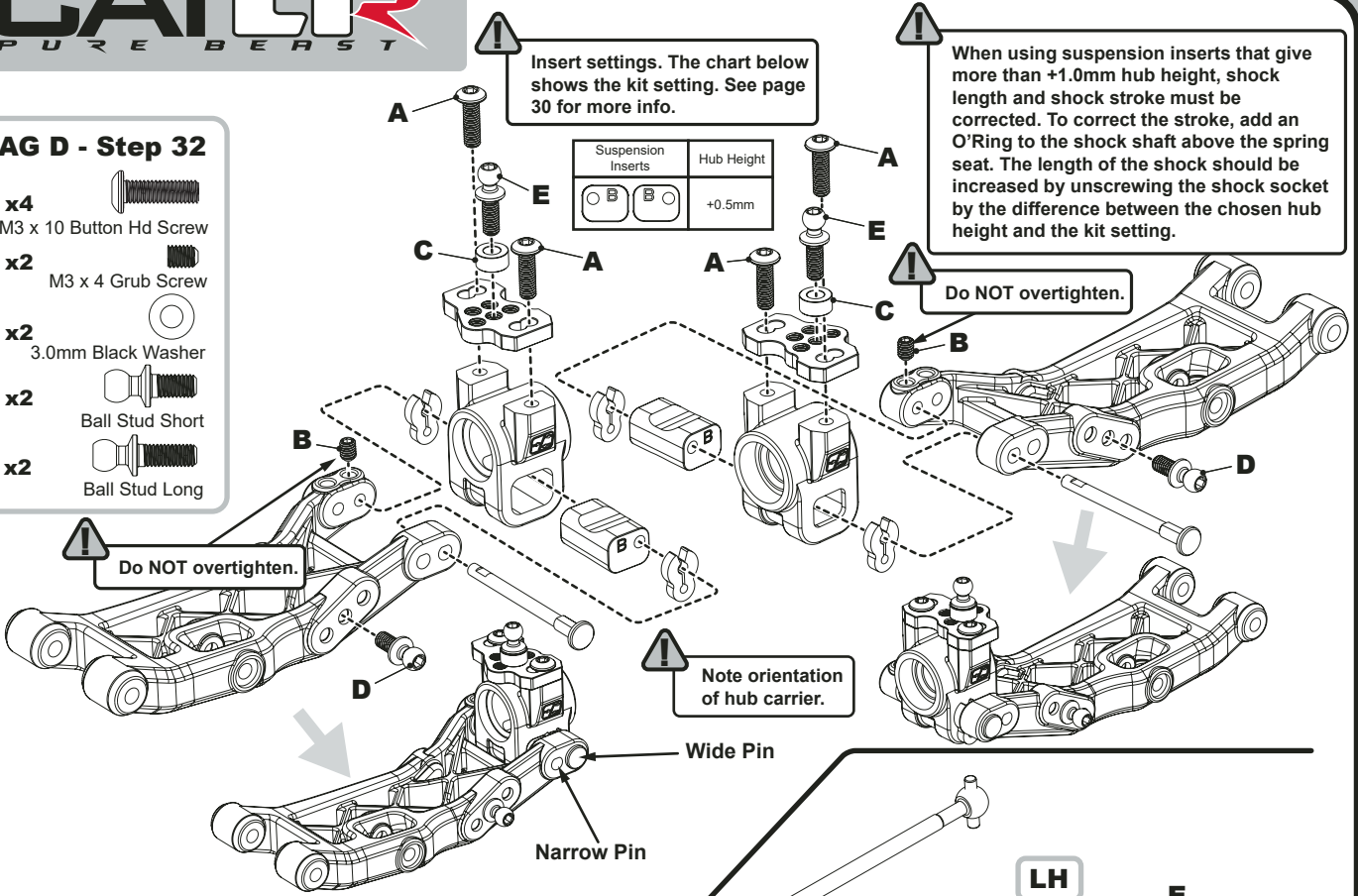


Suspension Inserts	Suspension Setting	Wheelbase Washer (D&E)	Track Width Spacer (B&C)
 	8° Rake Narrow Track	2.8mm Black (D)	No Spacer








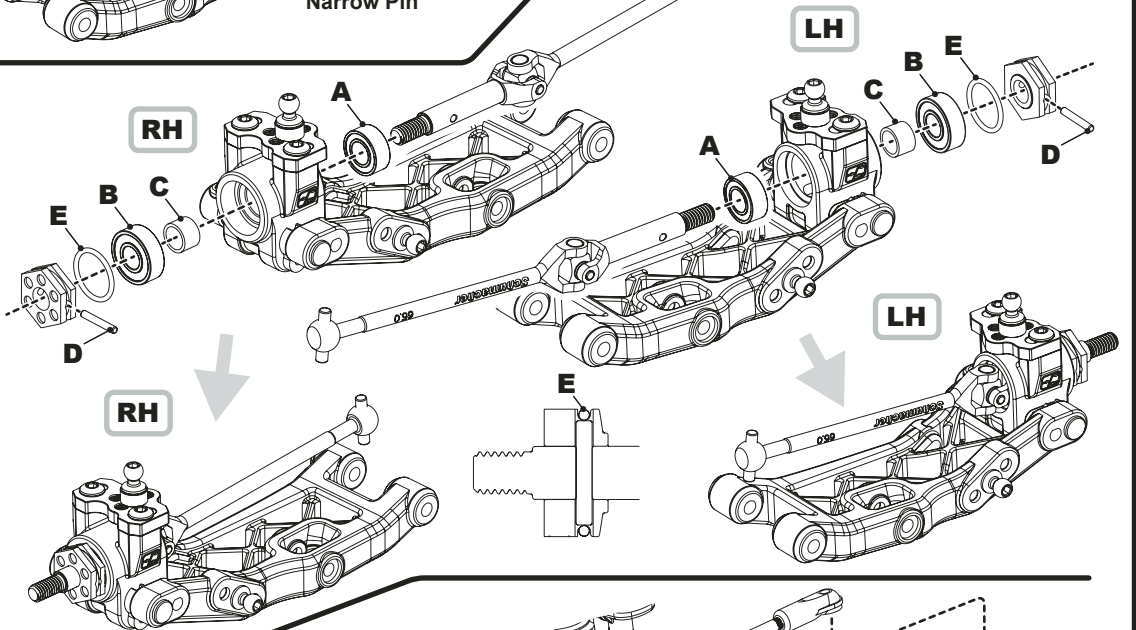
### BAG D - Step 32

- A x4**  M3 x 10 Button Hd Screw
- B x2**  M3 x 4 Grub Screw
- C x2**  3.0mm Black Washer
- D x2**  Ball Stud Short
- E x2**  Ball Stud Long



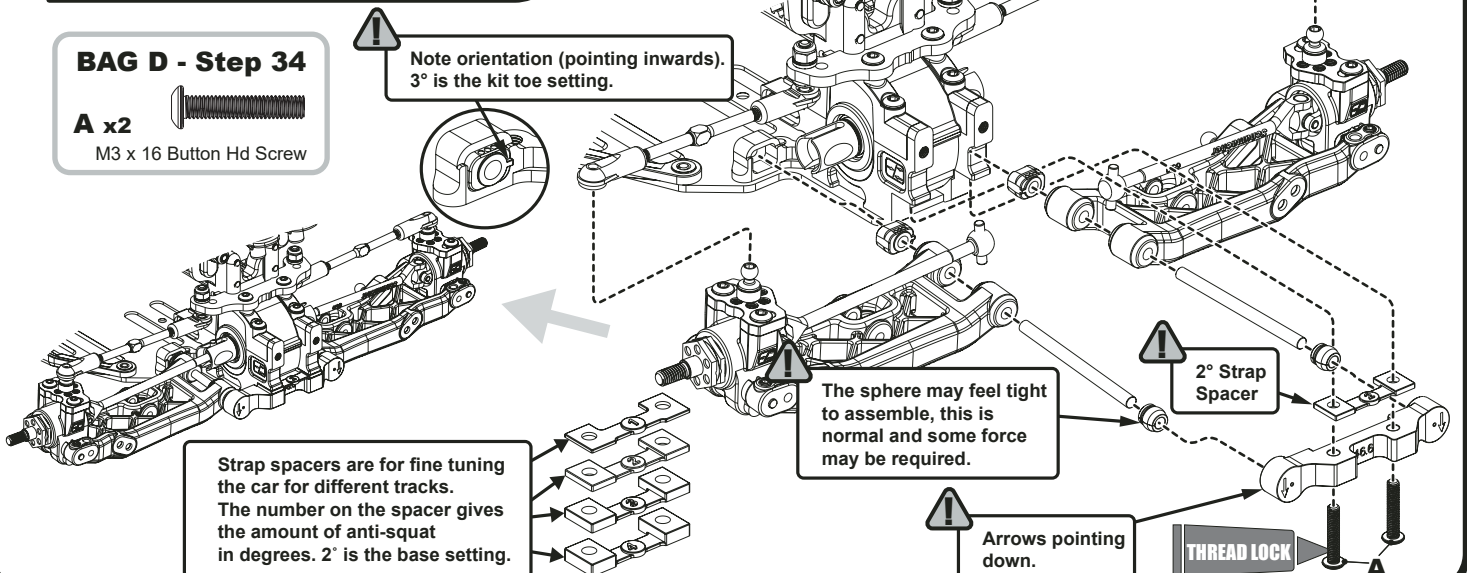
### BAG D - Step 33

- A x2**  ø5 x ø10 x 4mm Bearing
- B x2**  ø5 x ø12 x 4mm Bearing
- C x2**  ø5 x ø7 x 4.25mm Spacer
- D x2**  ø1.5 x 9.8mm Pin
- E x2**  O'Ring ø9 x 1.0






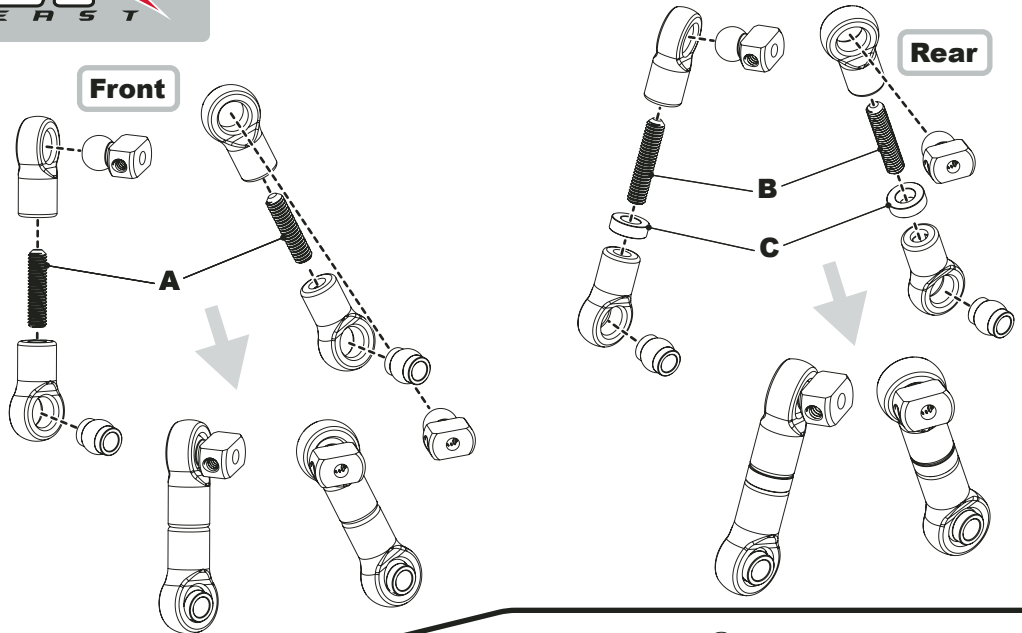
### BAG D - Step 34

- A x2**  M3 x 16 Button Hd Screw







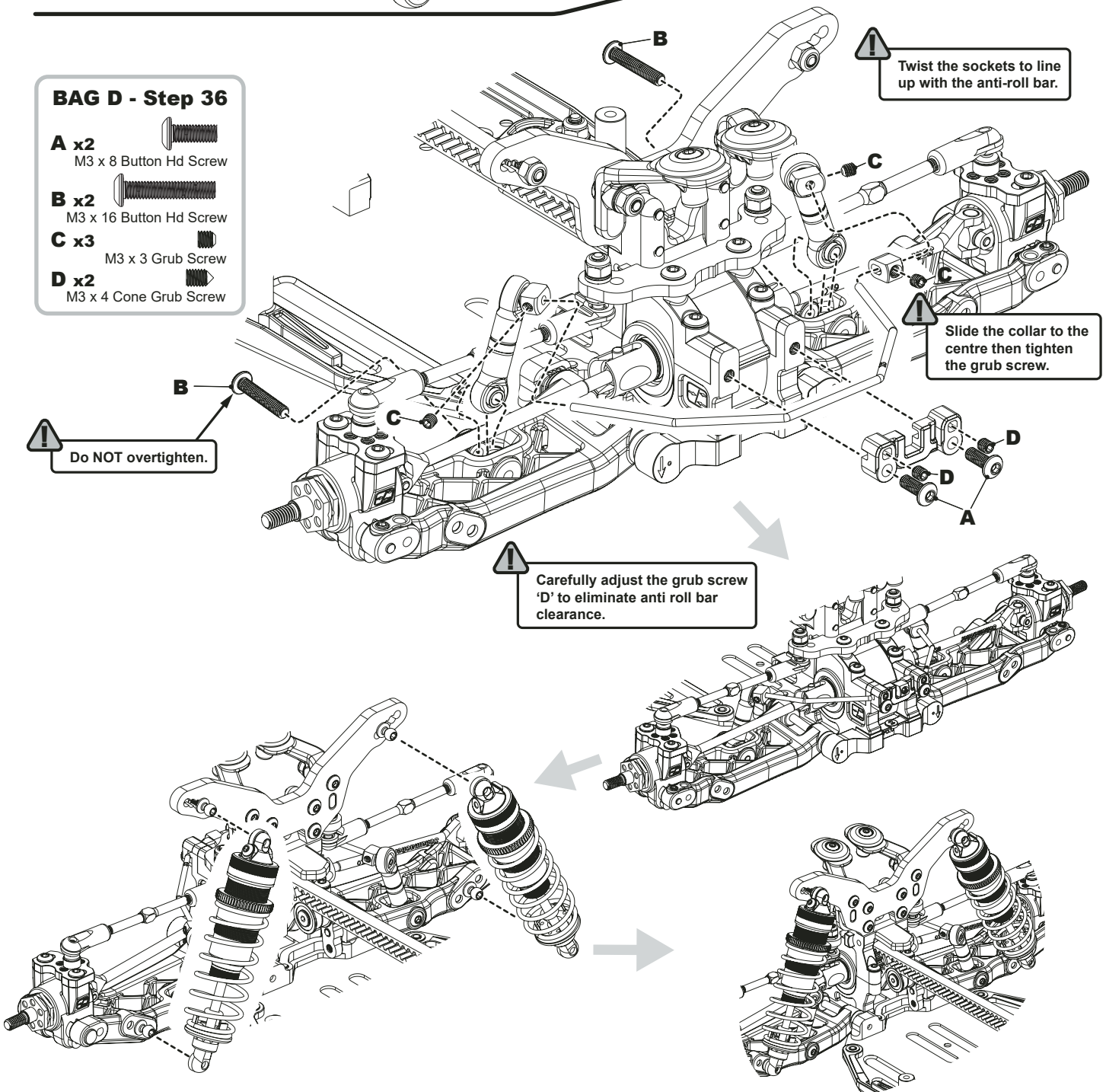
### BAG D - Step 35

- A x2**  M3 x 12 Grub Screw
- B x2**  M3 x 14 Grub Screw
- C x2**  Black 2.0mm Washer







### BAG D - Step 36

- A x2**  M3 x 8 Button Hd Screw
- B x2**  M3 x 16 Button Hd Screw
- C x3**  M3 x 3 Grub Screw
- D x2**  M3 x 4 Cone Grub Screw

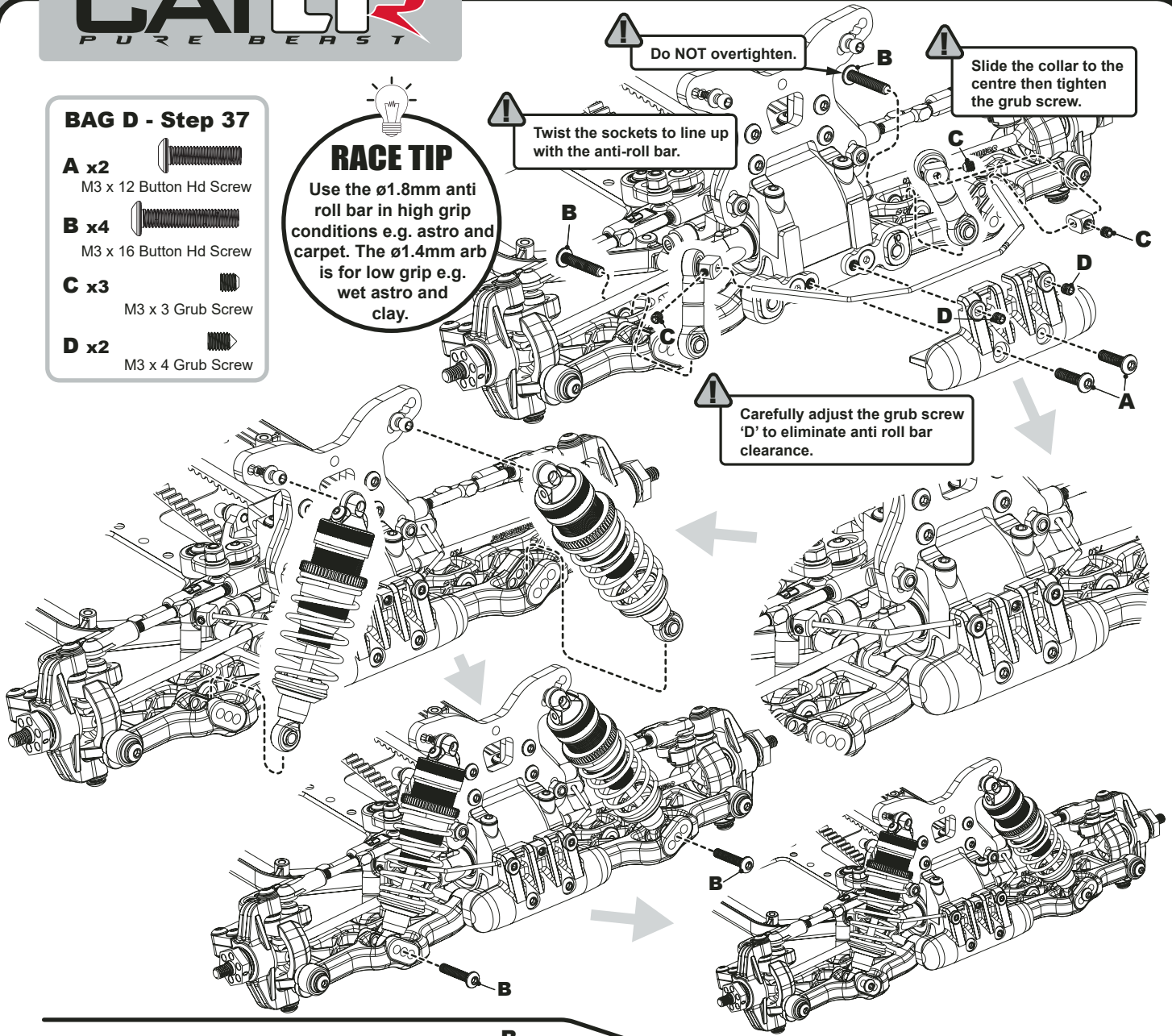









### BAG D - Step 37

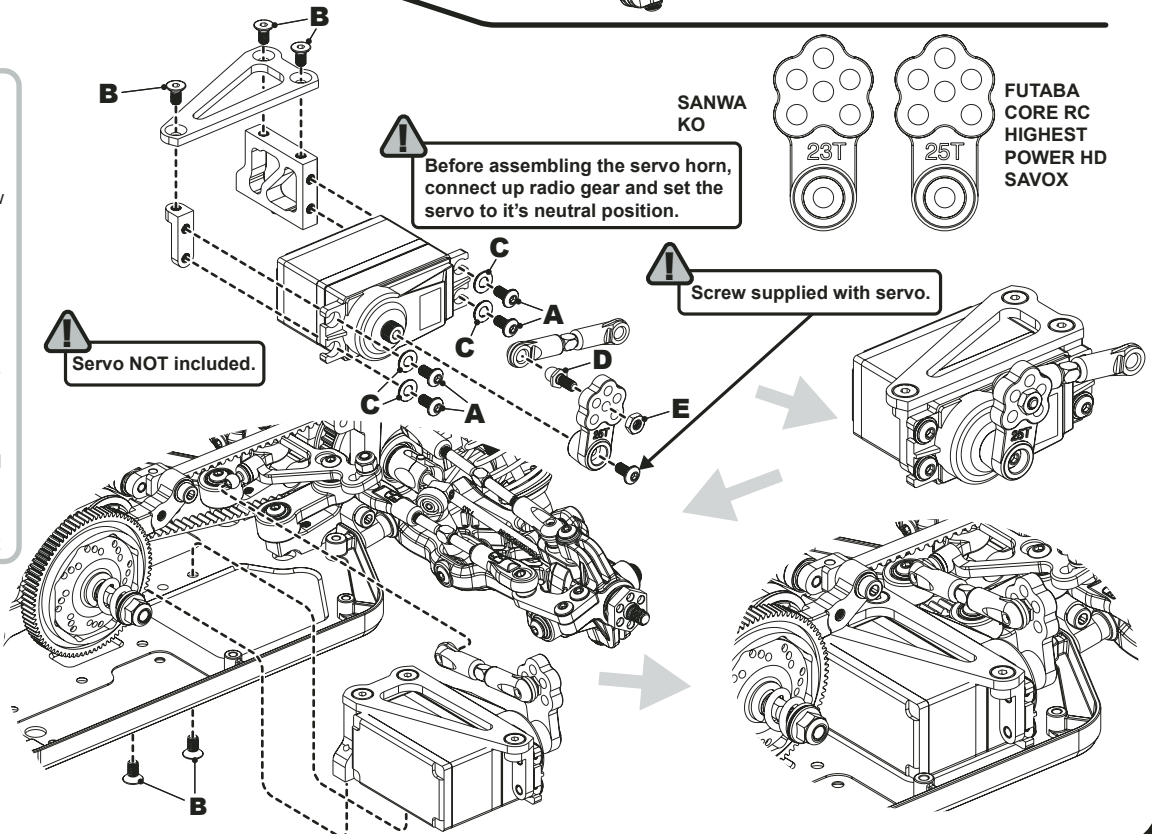
- A x2**  M3 x 12 Button Hd Screw
- B x4**  M3 x 16 Button Hd Screw
- C x3**  M3 x 3 Grub Screw
- D x2**  M3 x 4 Grub Screw

**RACE TIP**  
Use the  $\varnothing 1.8\text{mm}$  anti roll bar in high grip conditions e.g. astro and carpet. The  $\varnothing 1.4\text{mm}$  arb is for low grip e.g. wet astro and clay.









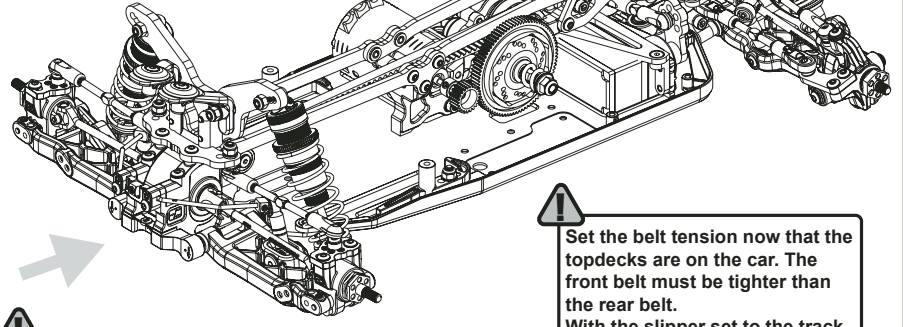
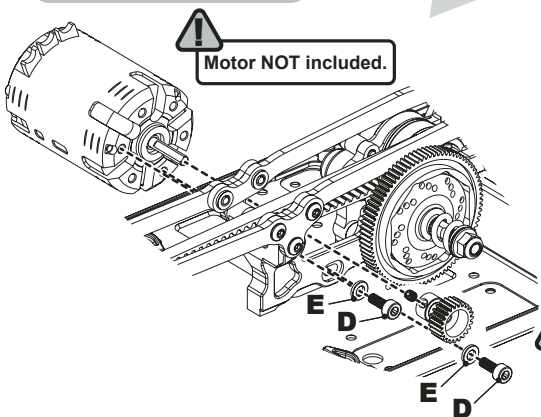
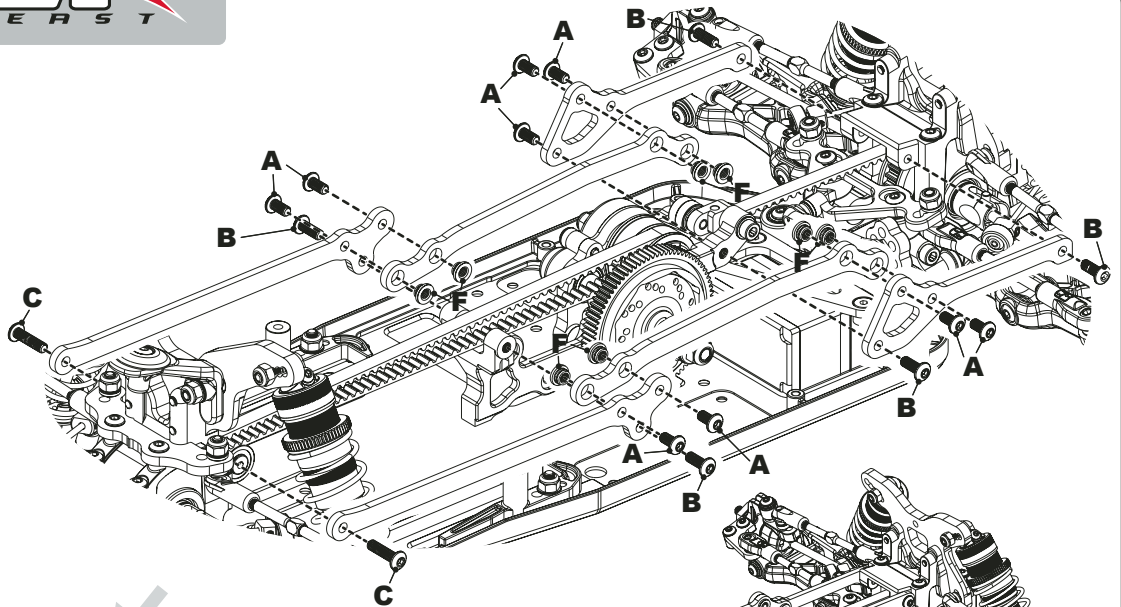
### BAG D - Step 38

- A x4**  M3 x 6 Button Hd Screw
- B x5**  M3 x 6 Csk Hd Screw
- C x4**  M3 Washer
- D x1**  Black Ball Stud
- E x1**  M3 Nut







## BAG D - Step 39

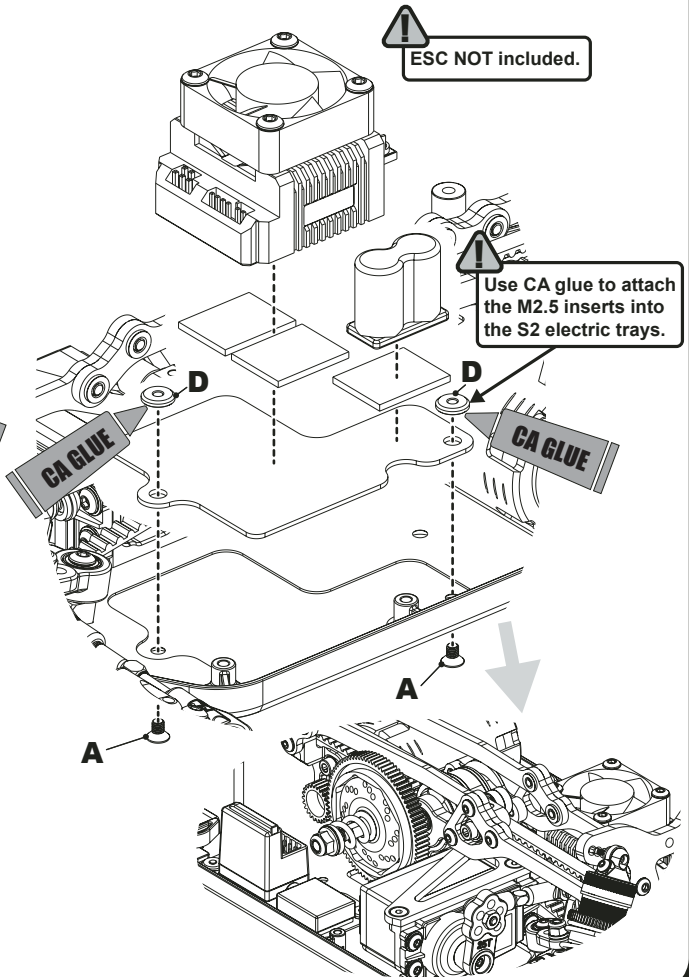
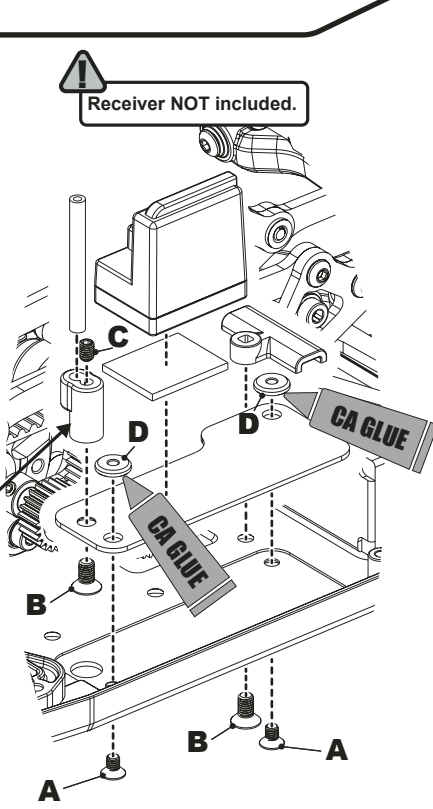
- A x9**  M3 x 6 Button Hd Screw
- B x5**  M3 x 8 Button Hd Screw
- C x2**  M3 x 12 Button Hd Screw
- D x2**  M3 x 8 Cap Hd Screw
- E x2**  Black 1.0mm Spacer
- F x8**  M3 Thread Insert



**!** Set the belt tension now that the topdecks are on the car. The front belt must be tighter than the rear belt. With the slipper set to the track, the belt should be set not to skip on power, but should not be overly tight or stretched.

## BAG D - Step 40









- A x4**  M2.5 x 4 Csk Hd Screw
- B x2**  M3 x 6 Csk Hd Screw
- C x1**  M3 x 4 Grub Screw
- D x4**  M2.5 Insert

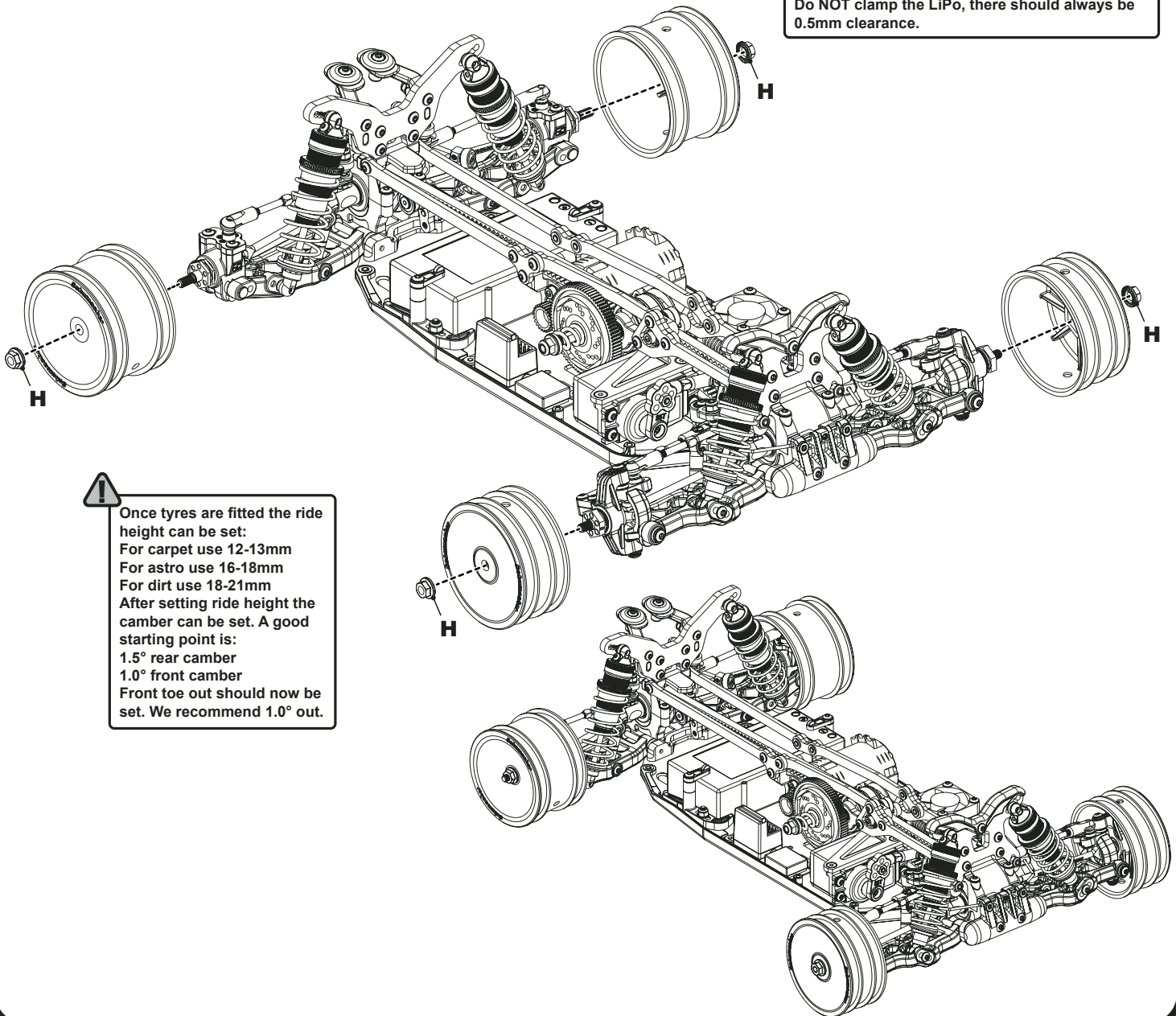
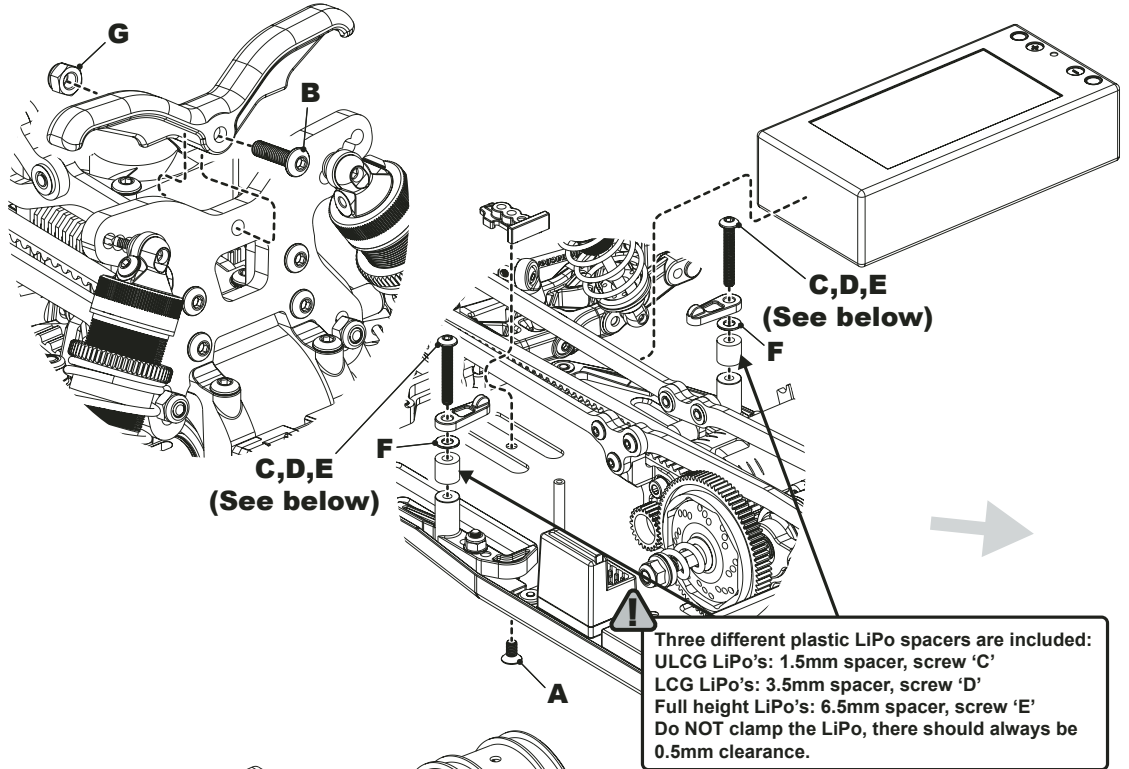


**!** Use CA glue to attach the M2.5 inserts into the S2 electric trays.

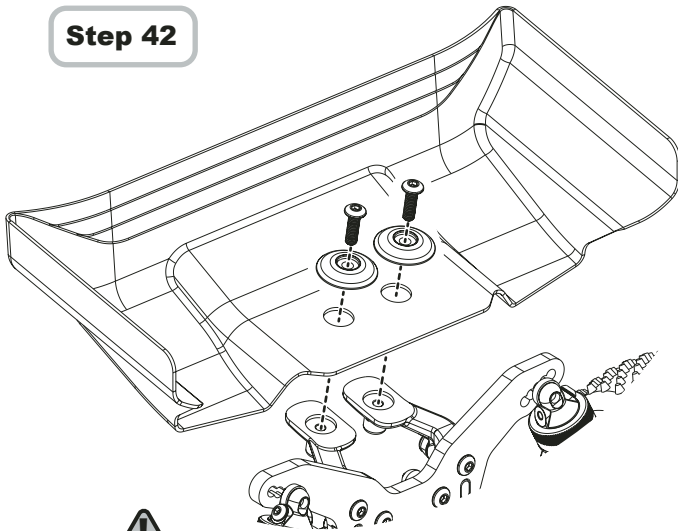


## BAG D - Step 41

- A x1**  M3 x 6 Csk Hd Screw
- B x1**  M3 x 12 Button Hd Screw
- C x2**  M3 x 14 Button Hd Screw
- D x2**  M3 x 16 Button Hd Screw
- E x2**  M3 x 20 Button Hd Screw
- F x2**  M3 Washer
- G x1**  Alloy M3 Nyloc
- H x4**  Serrated M4 Nut



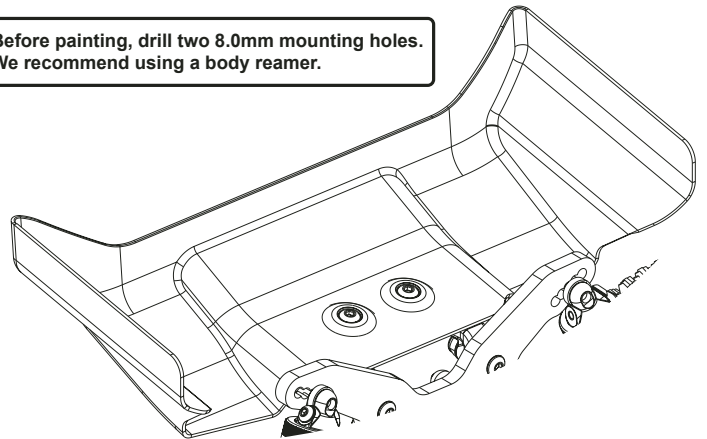
## Step 42



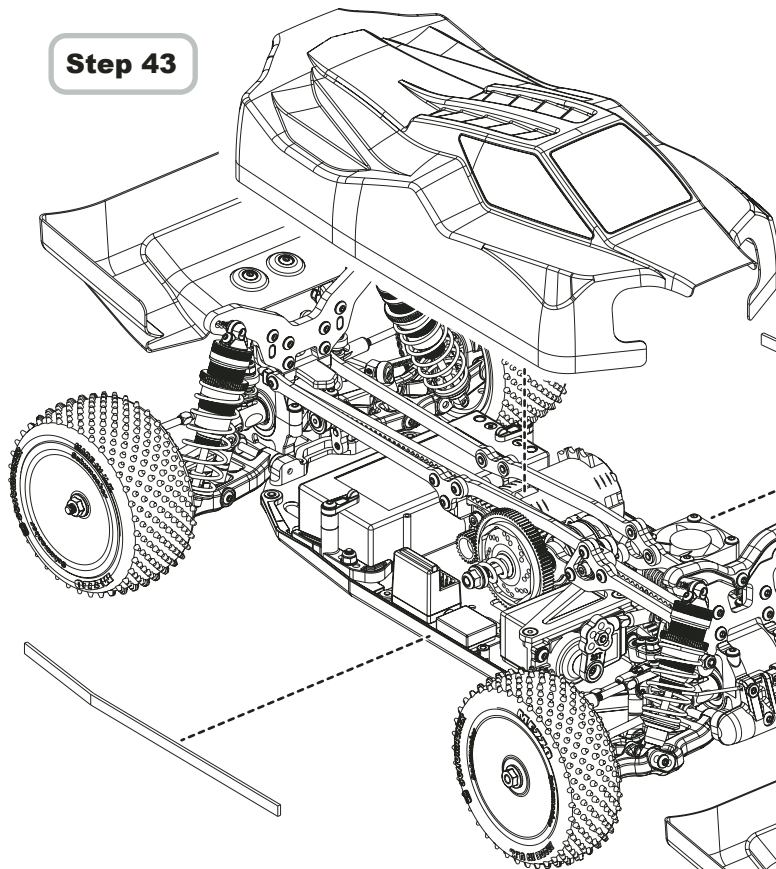
Remove, and use screws used on page 10, Step 24.



Before painting, drill two 8.0mm mounting holes. We recommend using a body reamer.



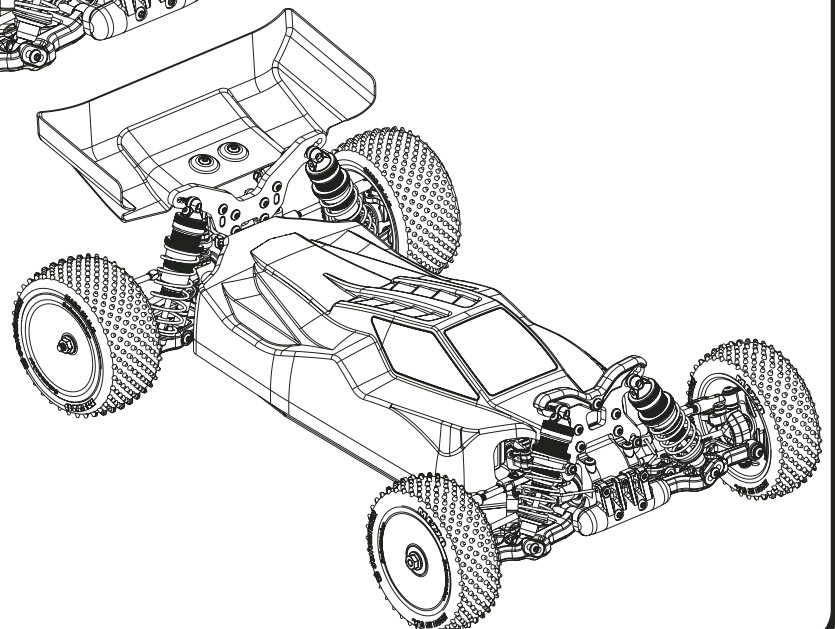
## Step 43



Body specification is shown for illustration purposes only. Use the included body cut out to the cut lines.



Apply the velcro to the side pod.





# CATLR

PURE BEAST  
STOCK SPEC  
MANUAL

## STOCK - Step 18

### BAG B - Step 18

**A** x1

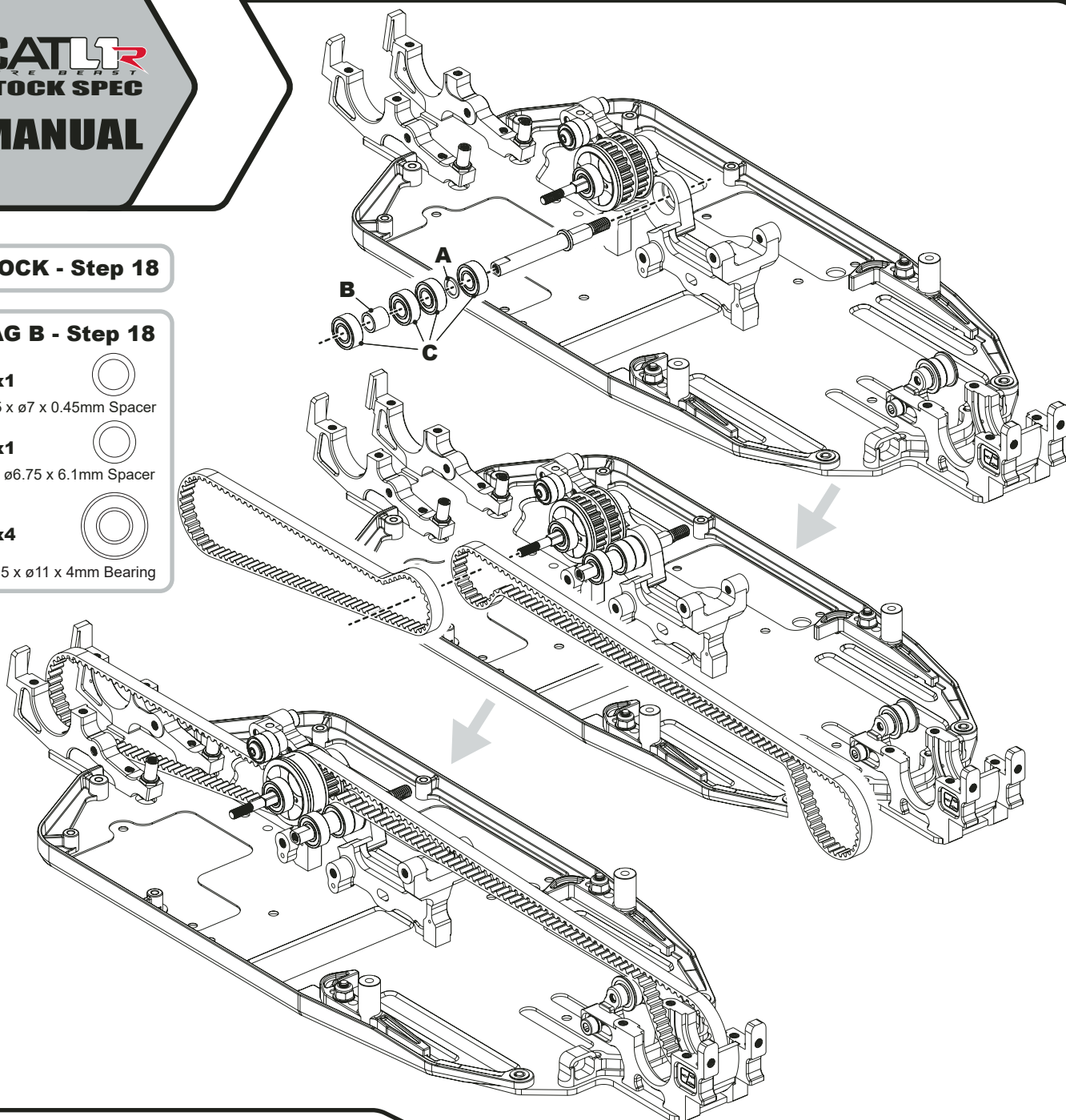
ø5 x ø7 x 0.45mm Spacer

**B** x1

ø5 x ø6.75 x 6.1mm Spacer

**C** x4

ø5 x ø11 x 4mm Bearing



## STOCK - Step 21

### BAG C - Step 21

**A** x1

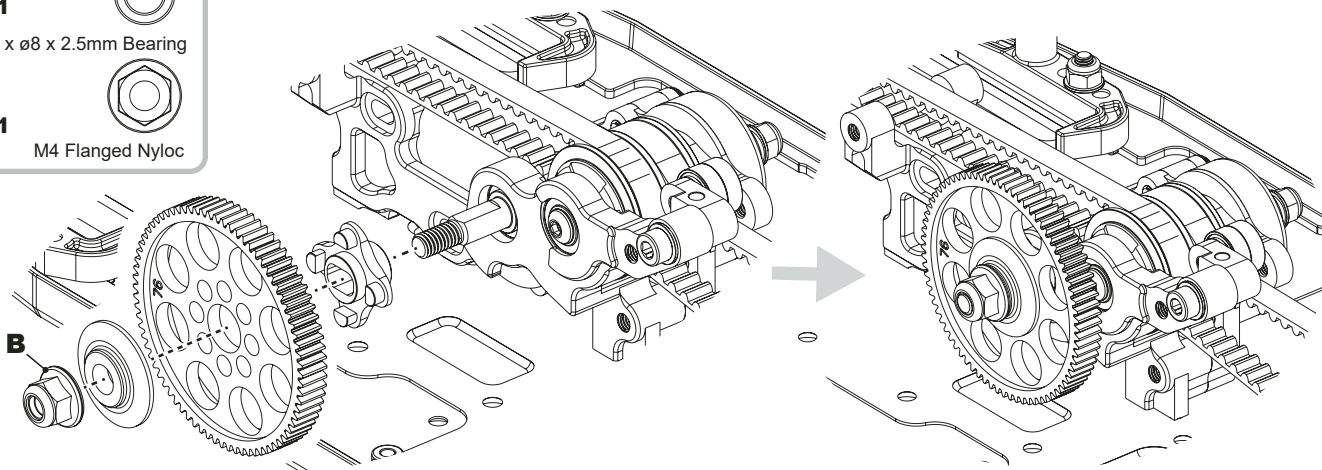
ø5 x ø8 x 2.5mm Bearing

**B** x1

M4 Flanged Nyloc



Bearing 'A' is not used for the stock spec conversion





## SPARES LISTS

### Chassis Parts

U119	Aerial Tube - Pack 4
U122	Velcro 1/2metre x 16mm.
U4741	6mm Offset Servo Arms
U4773	Aerial Mount
U7335	Wire Clamp Mouldings 3pcs - L1/EVO
U7336	Front Bumper - L1/EVO
U7339	Front Carpet Protector - LD/2,L1/EVO
U7382	C/F Servo Mount - L1/EVO
U7685	C/F HD Front Top Decks 2.5mm pr - L1/EVO
U7849	Alloy Servo Post - Mi7,L1 EVO
U7952	Wing Mount Mouldings - L1 EVO,LD2
U8401	Alloy Chassis - L1R
U8405	Side Pods - L1R (pr)
U8406	LiPo Mounting - L1R (3 pcs)
U8412	S2 Front Shock Mount - L1R
U8413	S2 Rear Shock Mount - L1R
U8414	C/F Center Top Deck - L1R (pr)
U8415	C/F Rear Top Deck - L1R (pr)
U8416	C/F Steering Arm - L1R (pr)
U8417	C/F Rear Camber Plate - L1R
U8418	S2 ESC Tray - L1R
U8419	S2 Receiver Tray - L1R

### Bodies & Decals

AX005	Aerox Wing CAT L1/EVO,LD/2 - 1.0mm
AX020	Aerox Wing CAT L1/EVO,LD/2 Carbon - 1.5mm
AX021	Aerox Wing CAT L1/EVO,LD/2 Black - 1.5mm
AX022	Aerox Wing CAT L1/EVO,LD/2 White - 1.5mm
PCB007	Penguin Emperor Wing - 1mm
PCB010	Penguin King Wing - 1mm
PCB016	Penguin Rockhopper Wing - 1mm
PCB031	Penguin Royal Wing - 1mm
JC0168	JConcepts-B6.3/B74.1 Rear Wing, 2pc
JC0169	Aero B6.3/B74.1 Rear Wing-Short Chord, 2pc
JC0173	JConcepts-Aero S-Type B6.3/B74.1 Wing, 2pc
JC0181	JConcepts-Aero S-Type 7inch Rear Wing, 2pc
JC0197	JConcepts-Carpet-Astro High-Clearance Rear Wing
JC0471	CAT L1R Body
JC0471L	CAT L1R Body - Lightweight
JC0501	Carpet/Astro High-Clearance 7" Rear Wing
JC0503	Carpet/Turf/Dirt, 6.5" Wing - pre-cut
JC0504	Carpet/Turf/Dirt, 7" Wing - pre-cut
KRC-MFWING	Klinik RC - Max Flow Wing (2)

### Suspension

U3708	Quick Clips 2.4 x 2.0mm (pk4) - 2WD/4WD
U3729	WishbonePivot Spheres pk4 - Cougar,ST
U4221	Turnbuckle Adjuster HTT - 24mm - pr
U4223	Turnbuckle Adjuster HTT - 45mm - pr
U4274	Pro Ball Stud Short - pk4
U4275	Pro Ball Stud Long - pk4
U4299	Turnbuckle HT - 52mm - pr
U4700	Pro Ball Stud - Ultra Long - (pk4)
U4850	Low Ball Stud pk4 - A1,A2,L1/EVO,E1-E4
U7083	Rear Strap Spacers - Cougar KD,KC,L1/EVO,LD/2,ST
U7337	Radius Arms pr - L1/EVO,LD2
U7352	Alloy Centre Track Rod - L1/EVO
U7354	Alloy Front Strap - L1/EVO
U7355	Alloy Servo Mount - L1/EVO
U7367	Rod End Ball Wide & Socket pr - L1/EVO,ST,CC
U7368	Rear Outboard Pivot Pin pr - LD/2,L1/EVO
U7384	Rear ARB Clamp - L1/EVO
U7385	Alloy Roll Bar Ball (Dia 5.5mm) pr - L1/EVO
U7431	Rod End Socket (Dia 5.5mm) (pk4)
U7628	Rear Toe-In Inserts 8prs - LD/2,L1 EVO,ST
U7659	ARB Mounting Collar - LD/2,L1 EVO,ST
U7672	Turnbuckle Adjuster HTT - 56mm - (pr)
U7971	Steering Pivot and Spacer - CAT L1 EVO (pr)
U7987	Rear Wishbones Med Flex - CAT L1/EVO,LD2
U7988	Yokes Med Flex 10 Deg - CAT L1/EVO
U8201	Rear Inboard Pivot Pin - LD2 (pr)
U8296	Rear Hub Carrier - L1R (pr)
U8297	Alloy Rear Hub Plate - L1R (pr)

### Suspension Cont.

U8311	Rear Hub Carrier Inserts - L1R (4 prs)
U8400	5.5mm Long Socket - L1R (4 pcs)
U8407	Alloy Front Pivot Block - L1R (pr)
U8408	Front Strap Inserts and Washers - L1R (7 prs)
U8409	Front Inboard Pivot Pin - L1R (pr)
U8410	Front Wishbones Med Flex - L1R (pr)
U8411	Front Hub Carriers - L1R (pr)
U8420	Pivot Bush - L1R (4 pcs)
U8424	Alloy RF Strap - L1R
U8425	Alloy RR Strap - L1R
U8427	5.5mm Pro Ball Stud Short (4 pcs)
U8428	5.5mm Pro Ball Stud Long (4 pcs)
U8432	Rear Roll Bar Set - soft (4 pcs)
U8435	Rear Roll Bar Set - Hard (3 pcs)
U8436	Front Roll Bar Set - Soft (4 pcs)
U8437	Front Roll Bar Set - Hard (3 pcs)

### Transmission

U2761	Diff Shims; 10x12x0.2 (pk8)
U3311	Axle Spacers 5x7 2prs - Off Road
U3351	Gear; 83t Spur - Slipper
U3364	Slipper Pad; PTFE Octagon pr - Off Road
U4106	Slipper Spring - SVR,KR,K1/Aero,L1/Evo
U4124	SPEED PACK - Shims 5 x 7 x 0.4mm - pk6
U4176	Gear Diff Gear Set - Off Road,FT
U4486	Rear Wheel Bearing Spacers pr - KF,LD2
U4712	Gear Diff O-Rings
U7061	Reverse Gear - KC,L1/EVO
U7062	Reverse Post - KC,L1/EVO
U7065	Slipper Spring Twin Plate - 2WD/4WD
U7066	Diff Output Pin pr - KD,KC,L1/EVO,ST,LD2
U7068	Eccentrics 2 prs - KC,L1/EVO,LD/2,ST
U7338	Dirt Covers 3pcs - L1/EVO
U7340	Side Gear Cover - L1/EVO
U7341	Alloy LH Lower Rear Trans - L1/EVO
U7361	Layshaft Spacer - L1/EVO
U7364	FAB Side Fence RH - CAT L1
U7365	FAB Side Fence RH - L1/EVO
U7366	FAB Side Fence LH - L1/EVO
U7391	Gear Diff Output - L1/EVO
U7394	Front Belt Tensioner - L1/EVO
U7398	Alloy Wheel Hex 6mm (0) pr - LD/2,L1/EVO,ST
U7950	Upper Front Trans - CAT L1 EVO
U7951	Upper Rear Trans - CAT L1 EVO
U7955	Belt Polyurethane 97T x 5mm Wide
U7956	Belt Polyurethane 155T x 5mm Wide
U7958	Tensioner Post - CAT L1 EVO (pr)
U7959	FAB Shaft - CAT L1 EVO
U7961	22T Front Pulley - CAT L1 EVO
U7962	22T Rear Pulley - CAT L1 EVO
U7963	FAB Side Gear - CAT L1 EVO
U7964	Alloy Laymount - CAT L1 EVO
U7966	Alloy Lower RH Rear Trans - CAT L1 EVO
U7968	Rear Belt Tensioner - CAT L1 EVO
U7980	0.5mm 20T Bevel Gear Shim - L1 EVO,ST,LD2
U8063	Diff Output Long - CAT L1/EVO (pr)
U8395	2 Gear Diff Pin - LD/2 L1/Evo
U8399	Outer Slipper Plate - L1R
U8402	Motor Mount - L1R
U8403	Alloy RH Lower Front Trans - L1R
U8404	Alloy LH Lower Front Trans - L1R
U8421	Alloy Layshaft - L1R
U8422	20t Side Gear - L1R
U8423	Inner Slipper Plate - L1R
U8429	Alloy Wheel Hex 4.5mm (-1.5) pr - L1R
U8430	Front Driveshaft - L1R (pr)
U8431	Rear Driveshaft - L1R (pr)
U8433	Gear Diff Rebuild Kit - L1R
U8434	Gear Diff Mouldings V3 - L1R

### Bearings & Balls

U2698	Ball Bearing - 5x10x4 Red Seal - (pr)
U2699	Ball Bearing - 10x15x4 Red Seal - (pr)

## SPARES LISTS

### Bearings & Balls Cont.

- U3075 Ball Bearing - 4x8x3mm Red Seal - (pr)
- U3136 Ball Bearing - 5x8x2.5 - Shield (pr)
- U3871 Ball Bearing - 5x9x3 Red Seal - (pr)
- U4318 Ball Bearing - 5x10x3 Red Seal - (pr)
- U7088 Ball Bearing 5x10x4 Red Seal FL - (pr)
- U7328 Ball Bearing - 5 x 11 x 4 Red Seal - (pr)
- U8274 Ball Bearing 5x12x4 Red Seal (pr)

### Big Bore Shocks

- U4110 Off Road Shock O Ring 1/8 Silicone Pk 8
- U4217 Vented Shock Cap Service Kit-Small/Big Bore pr
- U4451 Big Bore Shock Collar O-ring - pk4
- U4702 Shock Seal Housing V2 - Big Bore pr Off Road
- U4707 Short Ball Grippa - Grey (pk8)
- U7084 Shock Top Ring (pr) - Cougar KD,KC,LD/2,ST
- U7085 Shock Top (pr) - Cougar KD,KC,LD/2,ST
- U7388 Alloy Med Shock Body pr - LD/2,L1/EVO
- U7389 Alloy Long Shock Body pr - LD/2,L1/EVO,ST
- U7390 Alloy Spring Adjuster pr - LD/2,L1/EVO,ST
- U7625 Spring Hanger Low pr - LD/2,L1 EVO
- U7626 Spring Hanger High pr - L1 EVO,ST
- U7630 Shock Piston Support pr - LD/2,L1 EVO,ST
- U7632 Tapped Shock Shaft; Med pr - LD/2,L1 EVO
- U8380 Moulded Shock Pistons and Bushes - L1R (2 pr)
- U8426 Tapped Shock Shaft; Long (+1.2mm) - L1R

### Big Bore Springs

- CR177 CORE RC Big Bore Spring Tuning Set; Med 7prs
- CR178 CORE RC Big Bore Spring Tuning Set; Long 7prs
- CR179 Big Bore Spring; Med White - 2.8 pr
- CR180 Big Bore Spring; Med Red - 3.1 pr
- CR181 Big Bore Spring; Med Green - 3.4 pr
- CR182 Big Bore Spring; Med Blue - 3.7 pr
- CR183 Big Bore Spring; Med Black - 4.0 pr
- CR184 Big Bore Spring; Long White - 1.8 pr
- CR185 Big Bore Spring; Long Red - 2.0 pr
- CR186 Big Bore Spring; Long Green - 2.2 pr
- CR187 Big Bore Spring; Long Blue - 2.4 pr
- CR188 Big Bore Spring; Long Black - 2.6 pr
- CR635 Big Bore Spring; Med Orange - 4.3 pr
- CR636 Big Bore Spring; Med Yellow - 4.6 pr
- CR699 Big Bore Spring; Long Orange - 2.8 pr
- CR700 Big Bore Spring; Long Yellow - 3.0 pr
- CR808 High Response Spring; Long Red - 2.0 lb/in (pr)
- CR809 High Response Spring; Long Green - 2.2 lb/in (pr)
- CR810 High Response Spring; Long Blue - 2.4 lb/in (pr)
- CR811 High Response Spring; Long Black - 2.6 lb/in (pr)
- CR812 High Response Spring Tuning Set Long 4prs

### Hardware

- CR024 CORE RC - Serrated M4 Steel Wheel Nut pk4
- CR035 CORE RC - Serrated Alloy M4 Nuts; Blue pk 4
- CR036 CORE RC - Serrated Alloy M4 Nuts; Violet pk 4
- CR196 CORE RC - Serrated Alloy M4 Nuts - Black - pk4
- CR304 Titanium Wheel Nuts M4 - pk4
- U1633 SPEED PACK - Small Pins (pk)
- U1960 SPEED PACK - O Rings; Various
- U2187 SPEED PACK - M3 Nyloc Nut - Purple Alloy (pk8)
- U3021 SPEED PACK - M3x6 Csk Hd - (pk10)
- U3022 SPEED PACK - M3x8 Csk Hd - (pk10)
- U3131 SPEED PACK Alloy Spacers - M3x7mm 0.5;1;2mm (pk18)
- U3572 SPEED PACK - M3x14 Grub Screw pk4
- U3754 SPEED PACK - M2.5x10 Csk Hd pk8
- U4210 SPEED PACK - Pinion Grub Screw Set pk10
- U4220 'O' Ring 9.0x1.0 (pk10)
- U4241 SPEED PACK - M3 Alloy Nyloc Nuts - Black - pk10
- U4314 SPEED PACK - Alloy Black M3 Washers - 18pc
- U4650 SPEED PACK - M3 Nyloc Nut Steel - Black (10pcs)
- U4662 SPEED PACK - M3x4 Grub Screw - Cone Point (10pcs)
- U4835 SPEED PACK - M3 Steel Nut Black (pk8)
- U4862 Black Alloy Washers 0.50mm (pk12)
- U4987 SPEED PACK Needle Roller 1.5x11.8 (pk8)
- U7102 SPEED PACK - M3x4 Button Hd (pk10)

### Hardware Cont.

- U7103 SPEED PACK - M3x6 Button Hd (pk10)
- U7104 SPEED PACK - M3x8 Button Hd (pk10)
- U7105 SPEED PACK - M3x10 Button Hd (pk10)
- U7106 SPEED PACK - M3x12 Button Hd (pk10)
- U7107 SPEED PACK - M3x16 Button Hd (pk10)
- U7108 SPEED PACK - M3x20 Button Hd (pk10)
- U7109 SPEED PACK - M3x25 Button Hd (pk10)
- U7112 SPEED PACK - M3x8 Cap Hd (pk10)
- U7113 SPEED PACK - M3x10 Cap Hd (pk10)
- U7114 SPEED PACK - M3x12 Cap Hd (pk10)
- U7122 SPEED PACK - M3x12 Csk Hd (pk10)
- U7223 SPEED PACK M3 X 12 Grub (pk10)
- U7331 SPEED PACK - M3 X 30 Button Hd (pk10)
- U7332 SPEED PACK WASHERS Dia 3.5 (pk15)
- U7611 SPEED PACK - M3x14 Button Hd (pk10)
- U7677 SPEED PACK - M2.5x8 Csk Hd (pk10)
- U7689 M3 Brass Inserts - pk10
- U7707 M3 Steel Washers (pk10)
- U7710 M3 Black Alloy Washers 1.00mm (pk10)
- U7711 M3 Black Alloy Washers 2.00mm (pk10)
- U7712 M3 Black Alloy Washers 3.00mm (pk10)
- U7728 M2.5x4 Button Screws (pk10)
- U7791 SPEED PACK M2.5 x 4 Csk (pk4)
- U7900 SPEED PACK Needle Roller 1.5x9.8 (pk10)
- U7970 M2.5 Thread Insert pk10 - L1 EVO,ST,LD2
- U8273 M4 Steel Nyloc Flanged Nut (4 pcs)
- U8275 Plastic Washer Set 1,1.5,2,3,4mm (20 pcs)
- U8351 M3x5 Csk Hd (pk10)
- U8352 M3x14 Csk Hd (pk10)

### Option Parts

- AX011 Aerox Alloy Servo Arm - Offset 25T Futaba
- AX012 Aerox Alloy Servo Arm - Offset 23T KO/Sanwa
- CR280 Ti Pro Ball Studs - Short - (pr)
- CR282 Ti Pro Ball Studs - Long - (pr)
- CR720 Ti Pro Ball Studs - Ultra Long - pk 2
- U3350 Gear; CNC 82t Spur - 2/4 Plate Slipper
- U3790 Gear; CNC 76T Spur - Slipper
- U4726 Pro Ball Bearing - 5x10x3 Shield - (pr)
- U4890 Alloy Spring Seat - Off Road - pr
- U4946 Pro Ball Bearing 5 x 10 x 4 sealed - pr
- U7313 Titanium Turnbuckle - 24mm - Silver - pr
- U7317 Titanium Turnbuckle - 45mm - Silver - pr
- U7318 Titanium Turnbuckle - 53mm - Silver - pr
- U7325 Pro-Ball Bearing 5x11x4 Sealed - pr
- U7673 Titanium Turnbuckle - 56mm - Silver - (pr)
- U7333 Rear Wishbones pr - LD,L1/EVO
- U7342 Alloy LH Upper Rear Trans - L1/EVO
- U7343 Alloy RH Upper Rear Trans - L1/EVO
- U7348 Alloy LH Upper Front Trans - L1/EVO
- U7349 Alloy RH Upper Front Trans - L1/EVO
- U7353 Front Strap Inserts 8pcs - L1/EVO
- U7356 Belt 97T x 4mm Wide Polyurethane
- U7357 Belt 155T x 4mm Wide
- U7400 Titanium Low Profile M4 Serrated Nut (pk4)
- U7402 Alloy Wheel Hex 6.75mm (+.75) pr - LD/2,L1/EVO,ST
- U7403 Alloy Wheel Hex 7.5mm (+1.5) pr - LD/2,L1/EVO,ST
- U7404 Alloy Radius Arms pr - L1/EVO,LD2
- U7417 83T 3 Plate Slipper Spur Gear
- U7434 Alloy Med Shock Body Kashima pr-LD/2,L1/EVO
- U7435 Alloy Long Shock Body Kashima pr-LD/2,L1/EVO,ST
- U7490 C/F Wishbones Rear pr - L1/EVO,LD/2
- U7492 C/F Front Bumper - L1/EVO
- U7615 80T 2,3,4 Plate Slipper Spur Gear
- U7616 78T 2,3,4 Plate Slipper Spur Gear CNC
- U7646 Alloy Wheel Hex 5.25mm (-.75) pr - LD/2,L1/EVO,ST
- U7670 Lockout 76T Spur Gear - LD/2,L1 EVO,ST
- U7671 Lockout 71T Spur Gear - LD/2,L1 EVO,ST
- U7725 Pro-Ball Bearing 10x15x4 Sealed - (pr)
- U7729 Pro-Ball Bearing 5x9x3 Sealed - (pr)
- U7730 Pro-Ball Bearing 4x8x3 Sealed - (pr)
- U7972 C/F 2.0mm Rear Trans Spacer - CAT L1 EVO
- U7975 Alloy Eccentric Mid - (pr) KC,KD,LD/2,L1/EVO,ST
- U7976 Alloy Eccentric Hi-Lo - (pr) KC,KD,LD/2,L1/EVO,ST

## SPARES LISTS

### Option Parts Cont.

U7977	C/F RF Strap Spacer - CAT L1 EVO
U7978	Brass Front Strap - L1/EVO
U7982	Alloy Spring Seat High - Off Road (pr)
U7983	S2 2.0mm Front Topdeck - CAT L1 EVO (pr)
U7998	Ceramic Ball Bearing 5 x 10 x 4 Flanged (pr)
U8062	Roche Front Driveshaft Short - CAT L1/EVO (pr)
U8065	M3 Alloy Thread Inserts pk8-L1,Mi7,8,E3,E4,A2,Ic/2
U8334	Alloy LiPo Swivel - Mi8 (pr)
U8359	Rear Only Slipper (ROS) - L1-R
U8360	Slipper Lockout - L1-R
U8381	Alloy Wing Mount - L1R
U8382	Alloy 6 Degree Yokes (pr) - L1R
U8383	Alloy 8 Degree Yokes (pr) - L1R
U8384	Alloy 10 Degree Yokes (pr) - L1R
U8385	Alloy Front Hub Carriers (pr) - L1R
U8386	Brass Radio Tray - L1R
U8387	Brass ESC Tray - L1R
U8388	Alloy Rear Link Mount - L1R
U8389	Alloy Rear Hub Carriers (pr) - L1R
U8390	Alloy Diff Conversion V2 - L1 EVO,L1R
U8391	Alloy Diff Complete V2 - L1 EVO,L1R
U8392	Driveshaft Assembled CVD (pr) - L1R
U8393	Alloy Centre LiPo Mount - L1R
U8394	Alloy Side LiPo Mounts (pr) - L1R
U8440	C/F FAB Side Fence LH (pr) - L1/EVO/L1R
U8441	C/F Rear Shock Mount - L1R
U8442	C/F Front Shock Mount - L1R
U8443	C/F Steering Arm 1 Dot (pr) - L1R
U8444	C/F Steering Arm 2 Dot (pr) - L1R
U8445	C/F Steering Arm 3 Dot (pr) - L1R
U8446	Slipper Lockout Layshaft - L1R
U8447	Slipper Lockout Washer - L1R
U8448	Slipper Lockout Hub - L1R
U8449	C/F Chassis - L1R
U8450	Front Wisbones Stiff Flex (pr) - L1R
U8451	Front Wishbones Carbon Filled - L1R
U8452	Alloy Front Pivot Block Low - L1R (pr)
U8453	Ti 5.5mm Ball Stud Short (pr)
U8454	ROS Shaft - L1R
U8455	ROS RH Endplate - L1R
U8456	ROS Front Pulley - L1R
U8457	ROS Rear Pulley - L1R
U8458	ROS C/F Friction Disc (pr) - L1R
U8500	Ti 5.5mm Ball Stud Long (pr)
U8501	C/F Diff Mouldings V3 - L1R
U8502	3 Plate Slipper Clutch Conversion - L1R

### Pinions

U7517	Pinion; Long Boss Steel 48dp - 17T
U7518	Pinion; Long Boss Steel 48dp - 18T
U7519	Pinion; Long Boss Steel 48dp - 19T
U7520	Pinion; Long Boss Steel 48dp - 20T
U7521	Pinion; Long Boss Steel 48dp - 21T
U7522	Pinion; Long Boss Steel 48dp - 22T
U7523	Pinion; Long Boss Steel 48dp - 23T
U7524	Pinion; Long Boss Steel 48dp - 24T
U7525	Pinion; Long Boss Steel 48dp - 25T
U7526	Pinion; Long Boss Steel 48dp - 26T
U7527	Pinion; Long Boss Steel 48dp - 27T

### Wheels

U4365	Wheel; Hex Rear - Black - Off Road - pr
U4366	Wheel; Hex Rear - White - Off Road - pr
U4495	Wheel; Hex Front - Black - 4wd - pr
U4496	Wheel; Hex Front - White - 4wd - pr
U7458	Wheel Front 4WD - Neon Yellow v2 - pr
U7459	Wheel Front 4WD - Neon Yellow v2 - 5pr
U7460	Wheel Rear Off-Road - Neon Yellow v2 - pr
U7461	Wheel Rear Off-Road - Neon Yellow v2 - 5pr
U7468	Wheel Front 4WD - White - 5pr
U7469	Wheel Rear Off-Road - White - 5pr





AX011 - Aerox Alloy Servo Arm - Offset 25T Futaba  
 AX012 - Aerox Alloy Servo Arm - Offset 23T KO/Sanwa



CR280 - Titanium Pro Ball Studs - Short (pr)  
 CR282 - Titanium Pro Ball Studs - Long (pr)  
 CR720 - Ti Pro Ball Studs - Ultra Long - pk 2



U7333 - Stiff Wishbones Rear - (pr)  
 U7490 - CF Wishbones Rear - (pr)



U7400 - Titanium Low Profile M4 Serrated Nut.



U7404 - Alloy Radius Arms (pr)



U3350 - Gear; CNC 82t Spur - 2/4 Plate Slipper  
 U3790 - Gear; CNC 76T Spur - Slipper  
 U7417 - 83T 3 Plate Slipper Spur Gear  
 U7615 - 80T 2,3,4 Plate Slipper Spur Gear  
 U7616 - 78T 2,3,4 Plate Slipper Spur Gear CNC  
 U8502 - 3 Plate Slipper Clutch Conversion



U4890 - Alloy Spring Seat - 2WD/4WD (pr)  
 U7982 - Alloy Spring Seat High - Off Road (pr)



U7402 - Alloy Wheel Hex (0.75) - (pr)  
 U7403 - Alloy Wheel Hex (1.50) - (pr)  
 U7646 - Alloy Wheel Hex (-.75) - (pr)



U7434 - Alloy Med Shock Body Kashima Coat (pr)  
 U7435 - Alloy Long Shock Body Kashima Coat (pr)



U7313 - Titanium Turnbuckle - 24mm - Silver (pr)  
 U7317 - Titanium Turnbuckle - 45mm - Silver (pr)  
 U7318 - Titanium Turnbuckle - 53mm - Silver (pr)  
 U7673 - Titanium Turnbuckle - 56mm - Silver (pr)



U7983 - S2 2.0mm Front Topdeck



U7353 - Front Strap Inserts 8pcs



U7978 - Brass Front Strap



U7975 - Alloy Eccentric Mid - (pr)  
 U7976 - Alloy Eccentric Hi-Lo - (pr)



U8360 - Slipper Lockout (Stock Layshaft Conversion)



U7342 - Alloy LH Upper Rear Trans  
 U7343 - Alloy RH Upper Rear Trans  
 U7348 - Alloy LH Upper Front Trans  
 U7349 - Alloy RH Upper Front Trans



U7492 - C/F Front Bumper



U7670 - Lockout 76T Spur Gear  
 U7671 - Lockout 71T Spur Gear



U8062 - Roche Front Driveshaft Short  
 U8392 - Driveshaft Assembled CVD (pr)



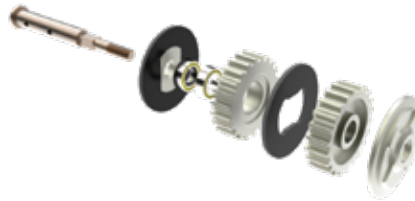
U8334 - Alloy LiPo Swivel



U7356 - Belt 97T x 4mm Wide Polyurethane  
 U7357 - Belt 155T x 4mm Wide



U8065 - M3 Alloy Thread Inserts pk8



U8359 - Rear Only Slipper (ROS)  
 U8454 - ROS Shaft  
 U8455 - ROS RH Endplate  
 U8456 - ROS Front Pulley  
 U8457 - ROS Rear Pulley  
 U8458 - ROS C/F Friction Disc (pr)



U8381 - Alloy Wing Mount



U8382 - Alloy 6 Degree Yokes (pr)  
 U8383 - Alloy 8 Degree Yokes (pr)  
 U8384 - Alloy 10 Degree Yokes (pr)



U8385 - Alloy Front Hub Carriers (pr)  
 U8389 - Alloy Rear Hub Carriers (pr)



U8386 - Brass Radio Tray  
 U8387 - Brass ESC Tray



U8388 - Alloy Rear Link Mount



U8440 - C/F FAB Side Fence LH (pr)



U8390 - Alloy Diff Conversion V2  
 U8391 - Alloy Diff Complete V2



U8450 - Front Wishbones Stiff Flex (pr)  
 U8451 - Front Wishbones Carbon Filled (pr)



U8393 - Alloy Centre LiPo Mount  
 U8394 - Alloy Side LiPo Mounts (pr)



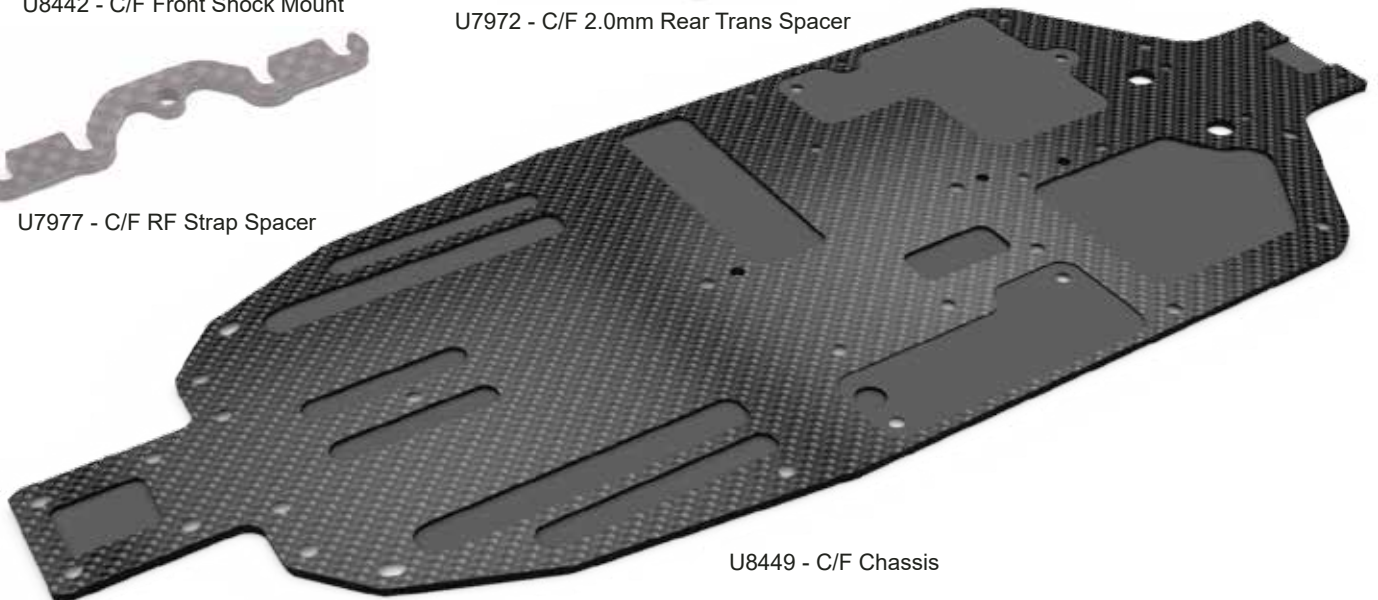
U8441 - C/F Rear Shock Mount  
 U8442 - C/F Front Shock Mount



U7972 - C/F 2.0mm Rear Trans Spacer



U7977 - C/F RF Strap Spacer



U8449 - C/F Chassis

# TRACK SETTINGS

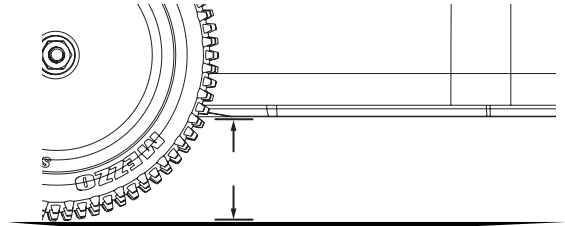
## RIDE HEIGHT

Use the spring adjusters on the shock absorbers to adjust the front and rear ride heights. With the car level, we recommend setting the ride height between 16-18mm on astro, 20-21mm on dirt and 12-14mm on carpet.

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.



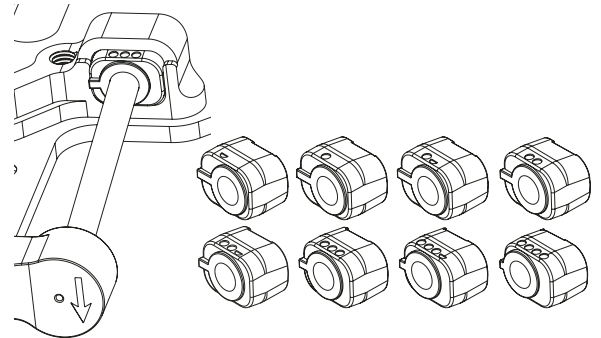
## REAR TOE INSERTS

See Page 14 Bag D - Step 34

The base setting for rear toe in is 3°, this is a good compromise between forward traction and the car binding in the turns. This setting is fine for most tracks. You can alter the toe in by changing the toe in inserts. If you are running too much toe in, your car may suffer from instability at high speeds. Decreasing the toe in will reduce forward traction but will free the car up in the turns. Usually the team use less toe in on high grip tracks and more for low grip tracks.

A good starting position is 1.5° on carpet and 4.0° on low grip dirt and wet astro.

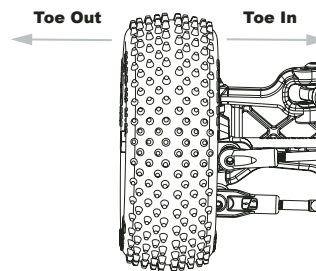
The eight blocks have indicators on top of them to show the amount of toe-in each one has. The range is 0.5° to 4.0°.



## FRONT TOE

See Page 06 Bag B - Step 13b

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.

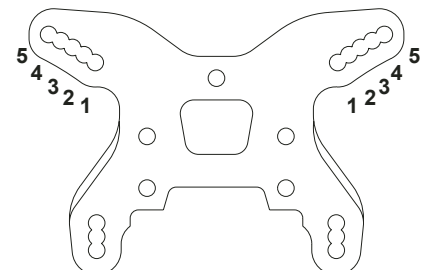


## FRONT SHOCK MOUNT

See Page 11 Bag C - Step 25

The kit setting on the front shock mount is position 2. Moving the shock outwards will make the car react faster and increase the initial steering response, it will however stiffen the suspension which may require an oil and spring change so that the cars suspension feels the same. Moving the shock inwards will soften the suspension and slow down the steering reaction and make the car smoother on bumpy tracks. Again you may need to alter the oil and spring combination to get the suspension correct again.

If you are occasionally lifting a rear wheel, the front shock may be too laid over. Standing the front shock up can fix this.

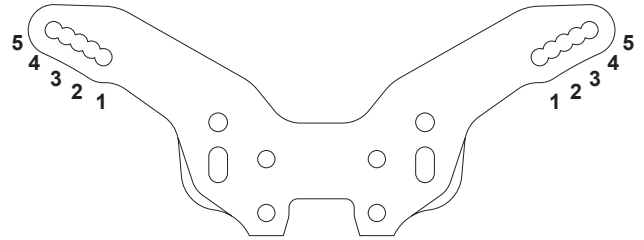




## REAR SHOCK MOUNT

See Page 10 Bag C - Step 24

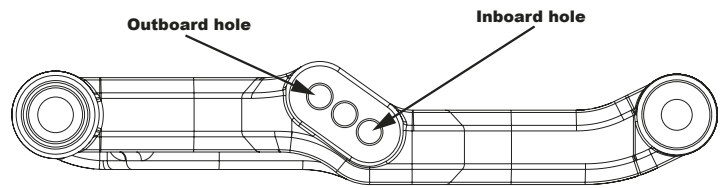
The second hole on the shock mount (2) gives best all round results. Moving the shock to the inboard position increases on power steering and reduces initial steering. Moving the shock to the outer holes will stiffen the suspension, increasing initial steering and forward drive but could cause the rear wheel lifting. Moving the shock to these holes may require an oil or spring change to maintain the suspension performance.



## FRONT WISHBONE SHOCK MOUNTING HOLE

See Page 16 Bag D - Step 37

The middle hole on the wishbone is the standard setting for most tracks. Moving the shock to the outer hole makes the car more reactive and increases suspension stiffness. Using the inner hole makes the car less reactive. This setting also makes the front end softer. Changes to the springs and dampers may be required for different mounting holes. Anti-roll bars can also be changed to suit mounting position.

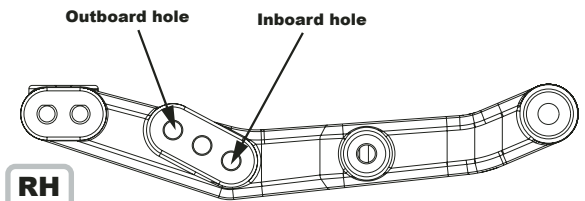


RH

## REAR WISHBONE SHOCK MOUNTING HOLE

See Page 14 Bag D - Step 32

The middle hole 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 the inside hole with harder springs and thicker oil. This should help improve the handling.

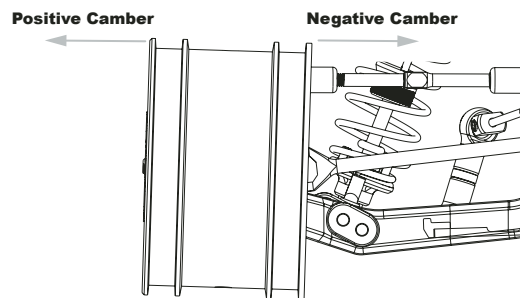


RH

## REAR CAMBER

See Page 06 Bag B - Step 13c

The usual team setting for static rear camber is between  $-1.0^\circ$  and  $-1.5^\circ$  at ride height (the top of the tyre leaning inwards towards the car). If more rear grip is required, increase camber to between  $-2.0^\circ$  and  $-3.0^\circ$ . When racing on high grip dirt, with squarer profile tyres, use between  $-0.80^\circ$  and  $-1.0^\circ$  rear camber to keep the contact patch consistent with the surface.

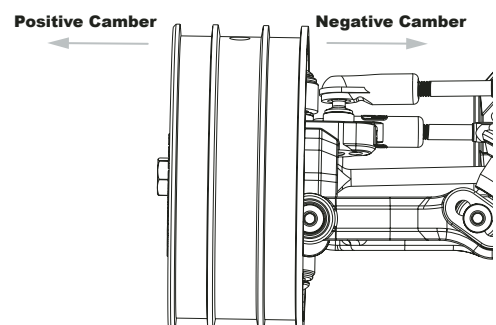


## FRONT CAMBER

See Page 06 Bag B - Step 13a

The usual team setting for static front camber is between  $-1.0^\circ$  and  $-2.0^\circ$  negative at ride height (the top of the wheel is leaning inwards towards the car). If more front grip is required, increase camber to between  $-2.0^\circ$  and  $-2.5^\circ$ .

When racing on high grip dirt, with squarer profile tyres, use between  $-0.80^\circ$  and  $-1.0^\circ$  front camber to keep the contact patch consistent with the surface.

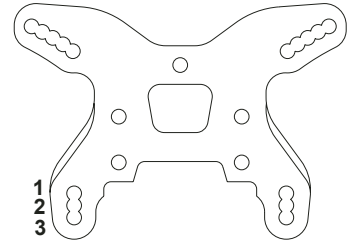


## FRONT CAMBER LINKS

See Page 11 Bag C - Step 25

The kit settings for the front camber link position (2) and length are used by the team for most tracks. A shorter front link will make the car roll less and speed up the cars initial steering response. This is a better choice for bumpy, low grip tracks.

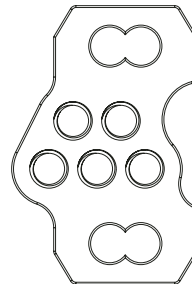
A longer front link makes the front of the car roll more and offers less steering reaction at high speed. We would recommend this on fairly smooth high grip tracks. Lowering the ball height will offer more grip to the front, but can make the car feel more edgy (similar to shortening the link).



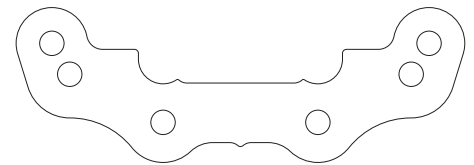
## REAR CAMBER LINK

See Page 14 Bag D - Step 32  
See Page 10 Bag C - Step 23

The kit setting for the rear camber link is the best compromise for most tracks. The outboard link option on the camber plate gives good stability and straight line traction while allowing the rear of the car to free up on high speed turns. This reduces power on understeer on high grip tracks. Shortening the rear camber link will make the rear of the car roll less in the corners, and square up faster when accelerating away from tight turns, longer links are generally used on high grip tracks and shorter links on low grip tracks. Lowering the inside ball stud will generate more grip, but reduce steering.



Hub Plate

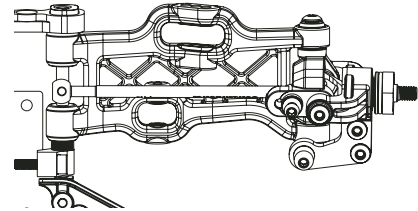


Camber Plate

## FRONT WHEELBASE

See Page 13 Bag D - Step 31

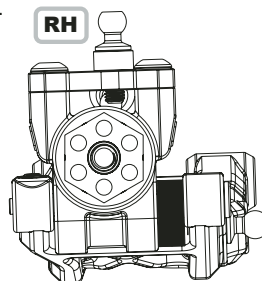
Moving the front wishbones backwards offers more load transfer when loading up the front going into the corner. This will promote more steering in general as there is more load over the front wheels. This change also means the drive shaft angle has increased, so naturally gives the car more drive. But all of that comes at the price of bump handling. A softer damper setup would be used in this case.



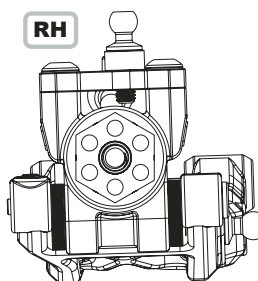
## REAR WHEELBASE OPTIONS

See Page 14 Bag D - Step 32

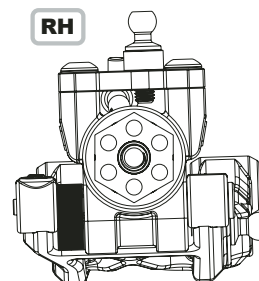
The CAT L1R has 3 wheelbase options at the rear, short, med and long. The adjustment is provided by re positioning the kwik clips on the outer wishbone pin. Moving the rear hub carrier forwards will give more traction at the expense of stability over rough sections of the track, and moving the hub carrier to the middle or rear position usually improves stability over the rough sections, running the car in long wheelbase form also free's up the car on sweeping sections of the track. Generally you will run long wheelbase on carpet, mid on astro and short on dirt.



Long Wheelbase



Mid Wheelbase (Kit Build)

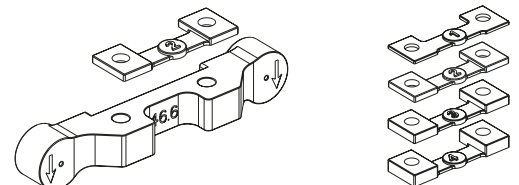


Short Wheelbase

## REAR ANTI SQUAT SPACERS

See Page 14 Bag D - Step 34

The Kit build anti squat is set at 2°. This works best on most tracks, and with the included parts can be increased or decreased. Generally less anti squat allows the suspension to work better over the large bumps and gives more power on steering. Reducing the anti squat makes the car handle better over small ripples, but not so good on the tracks with large bumps.

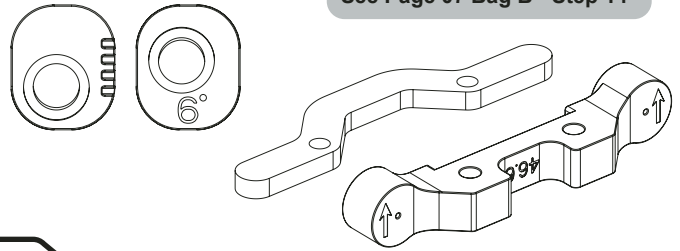


## HIGH ROLL CENTRE

See Page 13 Bag D - Step 31  
 See Page 14 Bag D - Step 34  
 See Page 07 Bag B - Step 14

The kit is built with the front hinge pin in the high position. This pulls the front end out of the corner harder and gives the feeling of drive. The lower setting is preferred on carpet as it makes the front roll more initially and in turn helps the car flow through high speed corners better.

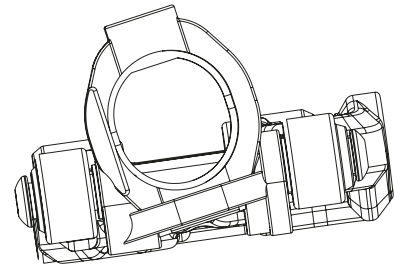
Higher rear roll centre (arrows up on the rr strap) using option **U8453 - C/F Rear Strap Spacer - L1R** will support the rear of the car more and suits high grip tracks the most. Using it in dirt, the team find you get more forward drive and makes the car more agile.



## FRONT YOKE

See Page 12 Bag C - Step 29

The kit build uses Medium Flex 10 degree yokes, with options of 6, 8 and 10 degree alloy versions. When using one of the alloy options the team generally uses 8 degree yokes. Decreasing the angle offers more initial steering and on power stability. Increasing the angle increases stability into the corner and gives more on power steering. More caster improves bump handling.



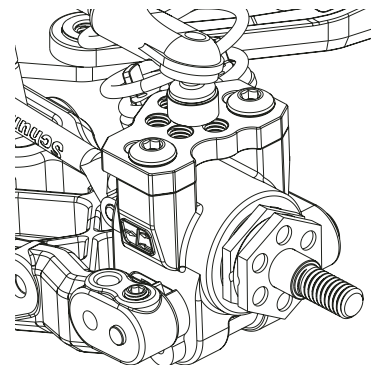
## FRONT & REAR HEX WIDTH

See Page 13 Bag C - Step 30 & Page 14 Bag D - Step 33

The base setting gives the best balance between steering and stability. Using a wider front hex will make the car more aggressive. Using a wider rear hex will help with more forward drive and initial turn in. Narrowing the rear will give more on power steering and increase side traction.

REAR HEX OPTIONS		
Part Number	Hex	Car Width Change
U8429	-1.50	Kit Build
U7646	-0.75	1.5mm Wider
U7398	0.00	3.0mm Wider

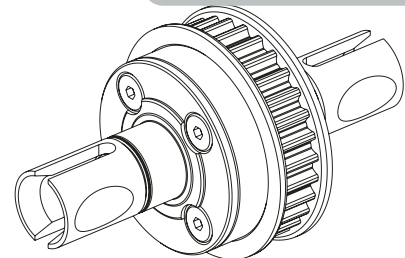
FRONT HEX OPTIONS		
Part Number	Hex	Car Width Change
U7646	-0.75	1.5mm Narrower
U7398	0.00	Kit Build
U7402	0.75	1.5mm Wider
U7403	1.50	3.0mm Wider



## GEAR DIFFERENTIAL

See Page 04 Bag A - Step 29  
 See Page 05 Bag B - Step 12

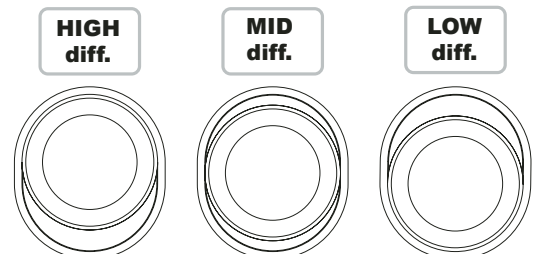
Geared Diffs can give variable driving characteristics. The handling of the diff is tuned by changing the oil. A recommended starting point is 12,000 cSt (CR229). Recommended option oils would be 10,000 cSt (CR222) and 7,000 cSt (CR221). Running 4 gears will give less drive and off power steering. It will also make the car drive out of the corner with a smoother arc. A 2 gear diff will make the car drive out of the corner squarer and feel like it has more drive. 2 gear diffs are also more aggressive on steering and rotation. Use 7,000cSt on high grip tracks, if you start spinning a wheel on power, go up on oil until it stops. We recommend changing the oil less often when running 4 gears.



## DIFFERENTIAL HEIGHT

See Page 10 Bag C - Step 22

The base diff height setting is High at the rear and Low at the front. Lowering the rear diff increases the traction in low grip conditions like on dirt surfaces. Lowering the front diff increases traction but has the additional affect of increasing steering. Running the diff high on carpet will help remove side grip. On more open tracks a lower diff will help increase corner speed.





## REAR HUB HEIGHT

See Page 14 Bag D - Step 32

The kit hub position is +0.5mm (Insert B) hub height.

Decreasing hub height will add some side grip and make the car feel like it rolls more.

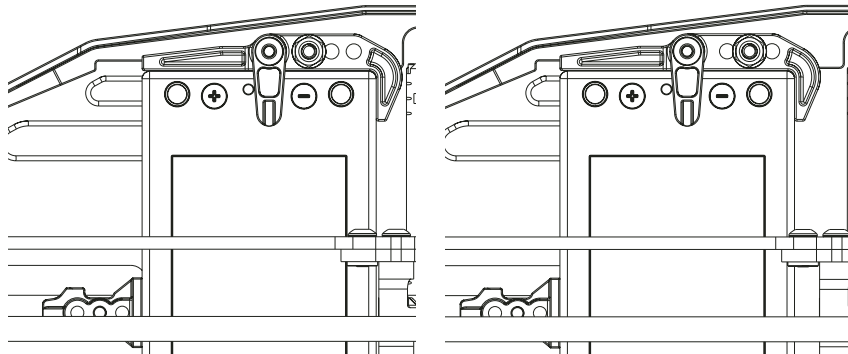
If you increase the height the car will feel like it rolls less and has less side bite. This will also help the car drive out of the corner. When using suspension inserts that give more than +1.0mm hub height, shock length and shock stroke must be corrected. To correct the stroke, add an O'Ring to the shock shaft above the spring seat. The length of the shock should be increased by unscrewing the shock socket by the difference between the chosen hub height and the kit setting.

Wide Pin		Hub Height	Narrow Pin		Hub Height
Suspension Inserts			Suspension Inserts		
		0.0mm			0.0mm
		+0.5mm			+0.5mm
		+1.0mm			+1.0mm
		+1.5mm			+1.5mm
		+2.0mm			+2.0mm
		+2.5mm			+2.5mm
		+3.0mm			+3.0mm

## LIPO POSITION

See Page 07 Bag B - Step 14

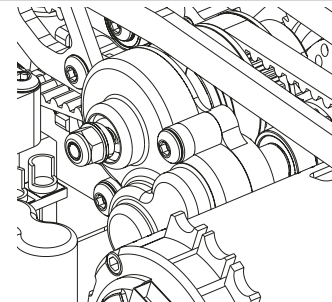
There are 2 shorty LiPo positions to fine tune the chassis. The team generally run the forward position as it gives the best balance. Sometimes it is moved back to calm down the rear of the car.



## F.A.B.

See Page 09 Bag B - Step 20

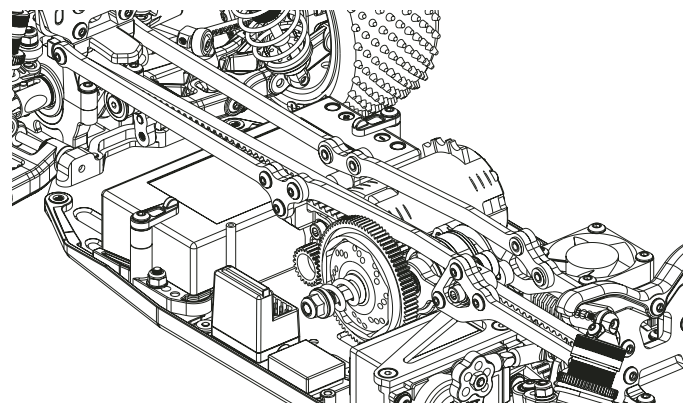
The front adjustable brake (F.A.B.) should be set tight with a small amount of slip to stop the car loading up the front too much and causing grip roll. As you loosen the F.A.B. you will get more initial steering but reduced braking.



## TOPDECKS

See Page 17 Bag D - Step 39

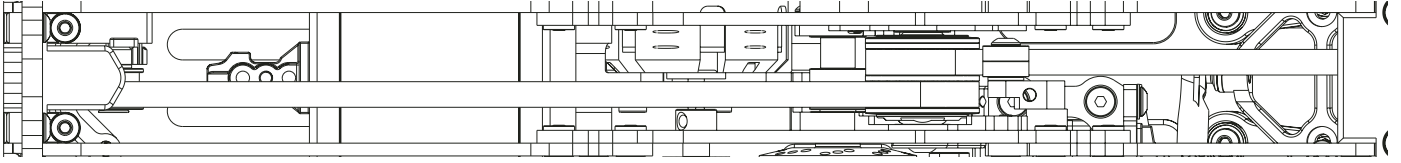
The kit topdecks provide a well balanced car with good steering response. The team generally use the option **U7983** - S2 2.0mm Front Topdeck to increase the chassis flex and offer a more forgiving car to drive.



## BELT SETTINGS

See Page 17 Bag D - Step 39

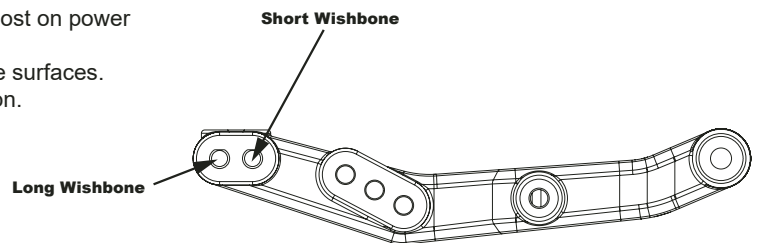
It is important to run the front belt tighter than the rear. It is also important not to overtighten the rear belt as it will promote a rear braking action and on lower grip surfaces you will find the back of the car unstable when off power. A tiny amount of belt skip on the upslope of the jump when the chassis is flexing is ok, if you overtighten the rear belt you will suffer failures.



## VARIABLE LENGTH REAR WISHBONES

See Page 14 Bag D - Step 32

The base setting is long wishbone. This setting gives the most on power steering and is the most stable on landing from jumps. The short wishbone setting will give more rear grip on loose surfaces. When running this setting you need to soften the suspension.



## GEAR RATIO (2.45:1)

See Page 09 Bag C - Step 21

### Pinion Gear

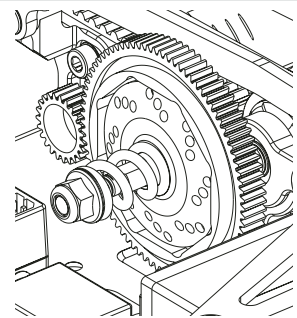
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
83	11.96	11.30	10.70	10.17	9.68	9.24	8.84	8.47	8.13						
82		11.16	10.57	10.05	9.57	9.13	8.73	8.37	8.04	7.73					
80				9.80	9.33	8.91	8.52	8.17	7.84	7.54	7.26	7.00			
78						8.68	8.31	7.96	7.64	7.35	7.08	6.83	6.59	6.37	
76								7.76	7.45	7.16	6.90	6.65	6.42	6.21	6.00
71													6.00	5.80	5.61

Tooth Sum 100 Minimum to 108 Maximum

## SLIPPER CLUTCH

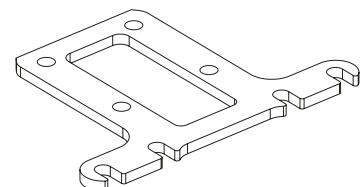
See Page 09 Bag C - Step 21

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. If you are generating too much heat at your preferred setting, use **U7418 - 3 Plate Slipper Conversion** this will give you a more durable slipper clutch.



## GEARBOX HEIGHT

The team use the **U7972 - C/F 2.0mm Rear Trans Spacer** when racing on carpet tracks. It allows the rear ride height to be low while maintaining good geometry angles. This allows it to land large jumps better and stays very flat in the corner.



## FRONT YOKE AND HUB HEIGHT

See Page 12 Bag C - Step 29

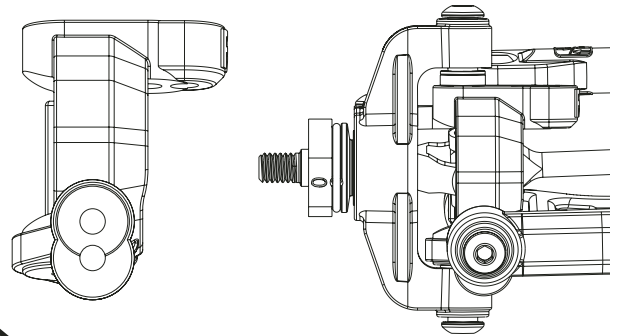
By changing these settings, axle height will be adjusted. The yoke holes move the axle height 3.5mm and the hub height adjusts the axle height based on the washers used.

Changing the height of the yoke also changes the front link angle which can be compensated for using washers.

Raising the axle will increase on power steering, decrease initial steering and give a safer car under braking.

Lowering the axle will increase initial steering.

If the car is breaking traction out of corners it's a sign of the axle being too high or too much castor angle.



## ADJUSTABLE RAKE ANGLE AND TRACK WIDTH

See Page 13 Bag D - Step 31

Less rake increases on power steering but decreases off power stability. More rake increases driveability in bumpy sections and increase driveability in corners. Using the inserts in the narrow position increases steering and the wide setting increases stability. The kit suspension inserts offer 8° or 10° rake, as shown in the right hand table.

12° of rake can be achieved by using **U8452 - Alloy Front Pivot Block Low** and **U7353 - Front Strap Inserts**, as shown in the table below.

Suspension Inserts	Suspension Setting	Wheelbase Washer (D&E)	Track Spacer (B&C)
	12° Rake Narrow Track	2.4mm White	No Spacer
	12° Rake Mid Track	2.4mm White	0.5mm
	12° Rake Wide Track	2.4mm White	1.0mm

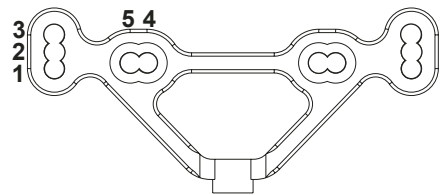
Suspension Inserts	Suspension Setting	Wheelbase Washer (D&E)	Track Spacer (B&C)
	8° Rake Narrow Track	2.8mm Black	No Spacer
	8° Rake Mid Track	2.8mm Black	0.5mm
	8° Rake Wide Track	2.8mm Black	1.0mm
	10° Rake Narrow Track	2.4mm White	No Spacer
	10° Rake Mid Track	2.4mm White	0.5mm
	10° Rake Wide Track	2.4mm White	1.0mm

## ACKERMANN

See Page 12 Bag C - Step 27

The kit build position of number 1 offers the smoothest feel for the steering. Positions 2 and 3 will make the car feel more aggressive with 3 being the most aggressive.

Running the outer kit hole (5) makes the steering more reactive. Position 4 (radius arms parallel) will cause a slower steering response.



## ANTI-ROLL BARS (SWAY BARS) \*Options

See Page 15 Bag D - Step 27

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.

Softening the front bar will allow the front to roll into the corner more and give the feeling of more initial steering. You may find you lift up a rear wheel so you may need to change it back or soften the rear bar. A stiffer front bar will smooth out the steering and can be used to reduce grip roll due to it scrubbing off some grip.

A harder rear bar will make the car drive flatter through the corners and feel like it has more initial steering as well as better forward drive. A softer rear bar will make the car roll more but you may need to stiffen the roll in another place if the car becomes too lazy.

## REAR WING & FRONT WINGS \*Options

See Page 19 - Step 42

Both the front and rear wings will add downforce to the the car. Trimming the gurney on the rear wing will reduce the downforce.

If the front of the car goes high over the jumps cut away the gurney on the rear wing until stable flight is achieved. Adding the front wing will increase front downforce and help keep the nose down when jumping.





## TYRES, WHEELS & INSERTS

### Tyres



**Rear Mini Pin 2**

U6803 - Blue Compound (pair)  
U6804 - Yellow Compound (pair)  
U6805 - Silver Compound (pair)

**Front Mini Pin 2**

U6821 - Yellow Compound (pair)  
U6517 - Blue Compound (pair)  
U6557 - Yellow Compound (pair)  
U6762 - Silver Compound (pair)



**Rear Mini Pin**

U6608 - Yellow Compound (pair)  
U6518 - Blue Compound (pair)

**Front Mini Pin**

U6601 - Blue Compound (pair)  
U6607 - Yellow Compound (pair)  
U6777 - Silver Compound (pair)



**Front Stagger Rib**

U6810 - Yellow Compound (pair)  
U6811 - Silver Compound (pair)  
U6846 - Blue Compound (pair)

### Wheels

**Neon Yellow**

U7460 - Rear (Pair)  
U7461 - Rear (5 Pairs)  
U7458 - Front (Pair)  
U7459 - Front (5 Pairs)

**White**

U4366 - Rear (Pair)  
U7469 - Rear (5 Pairs)  
U4496 - Front (Pair)  
U7468 - Front (5 Pairs)

**Black**

U4365 - Rear (Pair)  
U4495 - Front (Pair)



**Rear 2.2" Full Spike**

U6596 - Yellow Compound (pair)



**Rear Mini Pin 1**

U6817 - Yellow Compound (pair)  
U6819 - Blue Compound (pair)  
U6820 - Silver Compound (pair)



**Rear Honeycomb**

U6863 - Yellow Compound (pair)

**Front Honeycomb**

U6861 - Yellow Compound (pair)



**Rear Mini Dart**

U6826 - Yellow Compound (pair)  
U6829 - Blue Compound (pair)  
U6832 - Silver Compound (pair)

**Front Mini Dart**

U6825 - Yellow Compound (pair)  
U6828 - Blue Compound (pair)  
U6831 - Silver Compound (pair)



**Mezzo**

U6885 - Yellow Compound (pair)  
U6886 - Silver Compound (pair)  
U6887 - Blue Compound (pair)

**Front Mezzo**

U6888 - Yellow Compound (pair)  
U6889 - Silver Compound (pair)  
U6890 - Blue Compound (pair)



**Rear Cactus**

U6838 - Yellow Compound (pair)  
U6842 - Silver Compound (pair)  
U6844 - Blue Compound (pair)

**Front Cactus**

U6840 - Yellow Compound (pair)  
U6843 - Silver Compound (pair)  
U6845 - Blue Compound (pair)

**Front Cactus Fusion**

U6855 - Yellow Compound (pair)  
U6858 - Silver Compound (pair)

**Front Cactus Fusion 2**

U6895 - Yellow Compound (pair)  
U6896 - Blue Compound (pair)



**Rear Mini Spike 2**

U6516 - Green Compound (pair)  
U6518 - Blue Compound (pair)  
U6558 - Yellow Compound (pair)  
U6763 - Silver Compound (pair)

**Front Mini Spike 2**

U6515 - Green Compound (pair)  
U6517 - Blue Compound (pair)  
U6557 - Yellow Compound (pair)  
U6762 - Silver Compound (pair)

### Foam Inserts



**Front Med**

U6733 - Med (pair)  
MC0001 - Cragg KWF (pair)  
CR688 - Closed Cell (pair)  
JC8130 - Hard (pair)



**Rear**

U6653 - Hard (pair)  
U6668 - Soft Ultra Wide (pair)  
U6669 - Hard Ultra Wide (pair)  
U6734 - Med (pair)  
U6747 - Med Tubby (pair)  
MC0002 - Cragg KWF (pair)  
CR687 - Closed Cell (pair)  
JC8131 - Hard (pair)

### Pre-Glued

Yellow Compound Tyres  
White 12mm Hex Wheels

**Front**

U6791 - Mini Pin  
U6793 - Mini Spike2  
U6812 - Stagger Rib  
U6834 - Mini Dart  
U6841 - Cactus  
U6874 - Honeycomb  
U6893 - Mezzo  
U6898 - Cactus Fusion 2

**Rear**

U6794 - Mini Spike2  
U6806 - Mini Pin 2  
U6818 - Mini Pin 1  
U6835 - Mini Dart  
U6839 - Cactus  
U6875 - Honeycomb  
U6891 - Mezzo

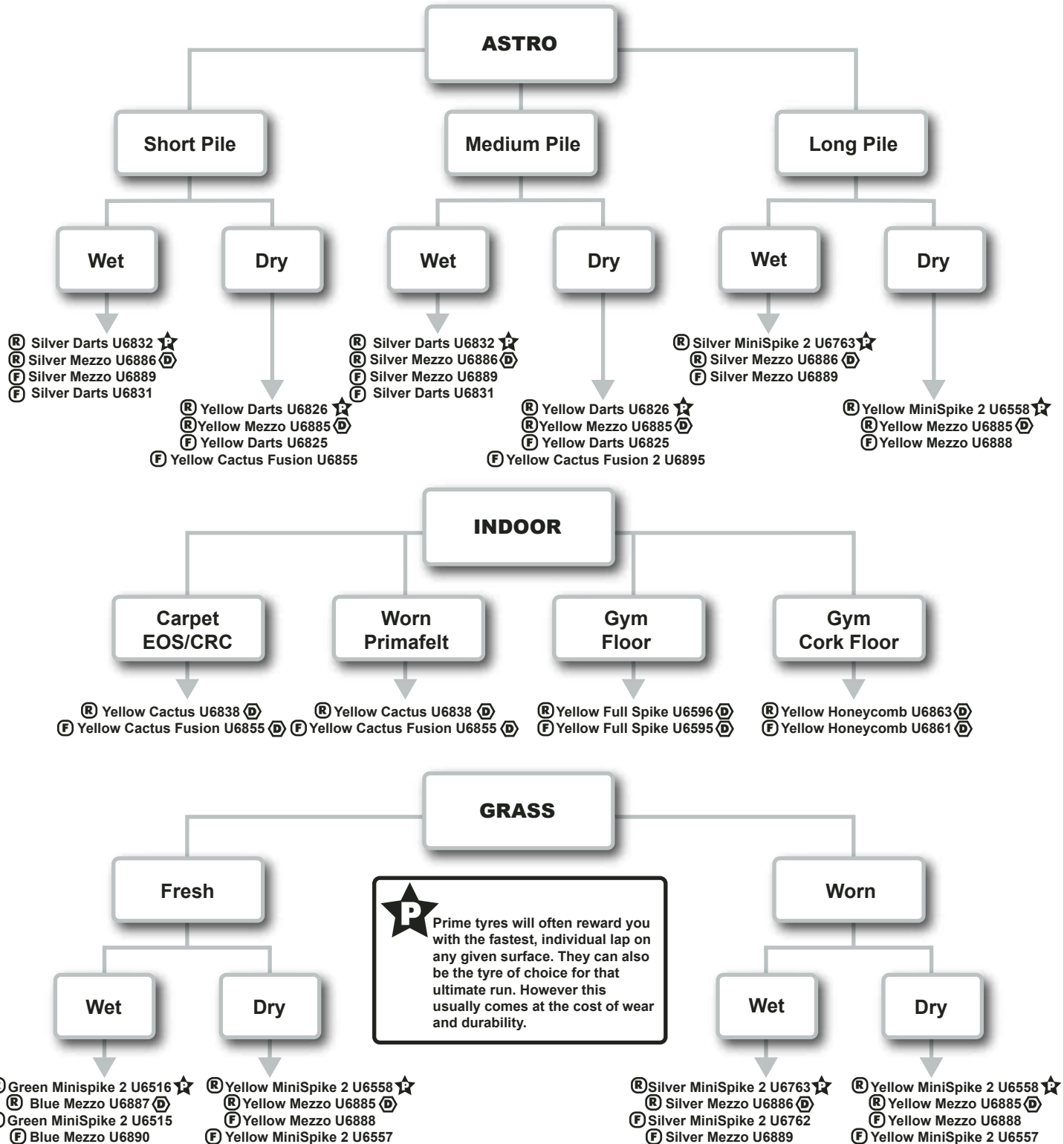
For the full and latest range of off-road tyres, scan the QR code.

Or visit [www.racing-cars.com](http://www.racing-cars.com) and check out Products > Wheels & Tyres.



## TYRE SELECTION

(R) = Rear Tyre    ☆ = Prime  
 (F) = Front Tyre    (D) = Durable Performance



## SET UP SHEETS

For the latest CAT L1R set up sheets from our top drivers around the world, scan the QR code.

Or visit [www.racing-cars.com](http://www.racing-cars.com) and check out Technical Information.



Driver: Kit Build 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	<u>Fusion 2</u>	<u>Mezzo</u>
Wheels	<u>Kit</u>	<u>Kit</u>
Inserts	<u>Med</u>	<u>Med</u>

**Notes:**

See pages 33 and 34 for tyre guidance.

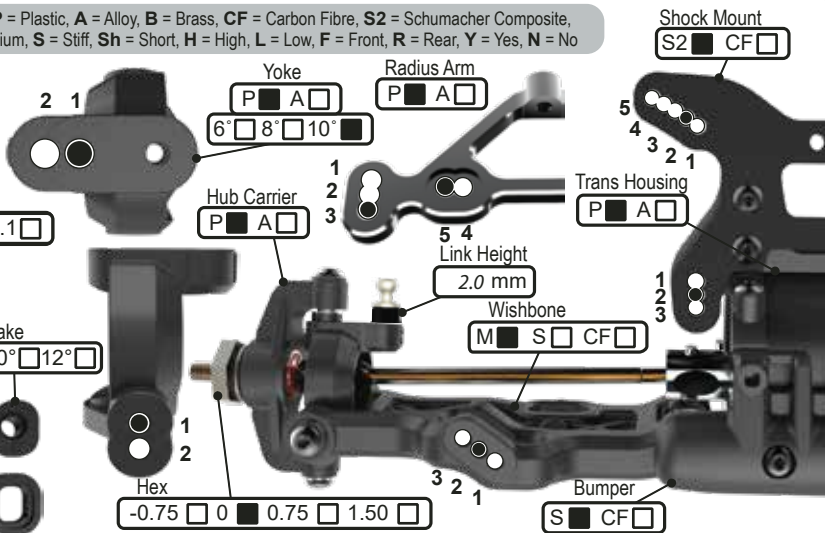
**Notes:**

**Front ARB**  
 Carpet and Astro = 1.8mm  
 Wet astro and Clay = 1.4mm

**FRONT SUSPENSION**

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

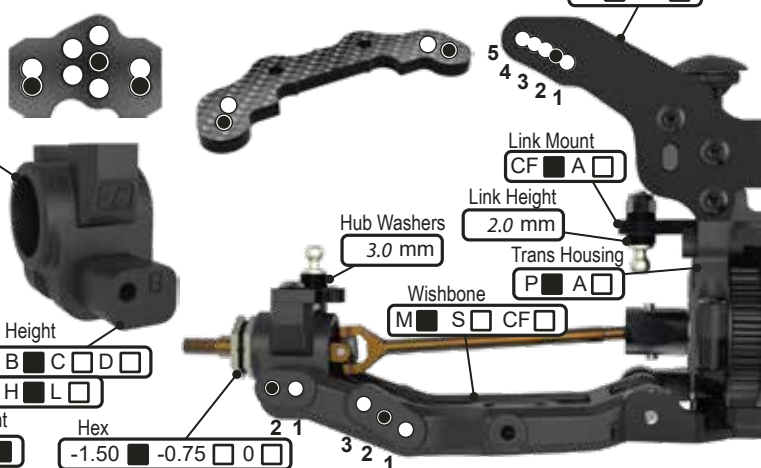
Ride Height \_\_\_\_\_ mm  
 Wheelbase Long  Short   
 Toe 1.0 deg In  Out   
 Camber at Ride Height 1.0 deg  
 Anti Roll Bar None  1.2  1.4  1.6  1.8  1.9  2.0  2.1   
 Hub Height H  L   
 Bump Steer Washers 0 mm  
 Hingepin Height H  L   
 Driveshaft Type Roche  U/J   
 Steering Arm Kit  1 Dot  2 Dot  3 Dot   
 Rake 8°  10°  12°   
 Track Narrow  Mid  Wide   
 Front Strap A  B



**REAR SUSPENSION**

KEY: P = Plastic, A = Alloy, B = Brass, CF = 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  
 Wheelbase Sh  M  L   
 Anti-Squat 1°  2°  3°  4°   
 Toe 4°  3.5°  3°  2.5°  2°  1.5°  1.0°  0.5°   
 Camber at Ride Height 1.5 deg  
 Anti Roll Bar None  1.2  1.4  1.6  1.8  1.9  2.0  2.1   
 Wing Gurney Height 10.5 mm  
 Driveshaft Type CVD  U/J   
 Gearbox Riser Y  N   
 Hub Height A  B  C  D   
 H  L   
 Pin Height H  L   
 Hex -1.50  -0.75  0



**CHASSIS**

Chassis A  C/F   
 LiPo Position R  F   
 Running Weight \_\_\_\_\_ g  
 Front Topdeck S2  CF

Motor \_\_\_\_\_  
 Rotor Dia. \_\_\_\_\_ mm  
 Timing \_\_\_\_\_ deg

**WEIGHTS**

Radio Tray Y  N   
 ESC Tray Y  N   
 Pinion \_\_\_\_\_ t  
 Spur 83 t  
 R.O.S Y  N   
 Lock Out Y  N   
 Slipper Plates 2  3

**EQUIPMENT**

E.S.C. \_\_\_\_\_  
 Servo \_\_\_\_\_  
 RX \_\_\_\_\_  
 LiPo \_\_\_\_\_  
 Bodysell \_\_\_\_\_  
 Wing \_\_\_\_\_

**TRANSMISSION**

Diff Height Front H  M  L  Diff Height Rear H  M  L   
 Diff Oil Front 12,000 cSt Diff Oil Rear 12,000 cSt  
 Diff Gears Front 2  4  Diff Gears Rear 2  4   
 Diff Body Front P  A  CF  Diff Body Rear P  A  CF

**SHOCKS**

KEY: i = Internal, e = External, V = Vented, S = Sealed, A = Aeration

	FRONT	REAR
Cap	V <input type="checkbox"/> S <input type="checkbox"/> A <input type="checkbox"/>	V <input type="checkbox"/> S <input type="checkbox"/> A <input type="checkbox"/>
Kashima	Y <input type="checkbox"/> N <input type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>
Oil	550 cSt	400 cSt
Piston	White 1.6 2 Hole	White 1.8 2 Hole
Spring	Blue 3.7 lb/in	Green 2.2 lb/in
Limiters (i)	0 mm	0 mm
Stroke	22 mm	28.5 mm
Limiters (e)	0 mm	1 O'Ring 1.8 mm
Shock Stand Off	_____	0 mm

**Notes:**





Driver: *Tristram Neal*    Date: *17/11/22*    Event/Track: *Florida Carpet Championship 13.5T*  
 Qualify: *B1*    Final: *A9*    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  Outdoor  Indoor

**TYRES**

	FRONT	REAR
Tyres	<i>JC Fuzz Bite</i>	<i>JC Fuzz Bite</i>
Wheels	<i>JConcepts</i>	<i>JConcepts</i>
Inserts	<i>JConcepts</i>	<i>JConcepts</i>

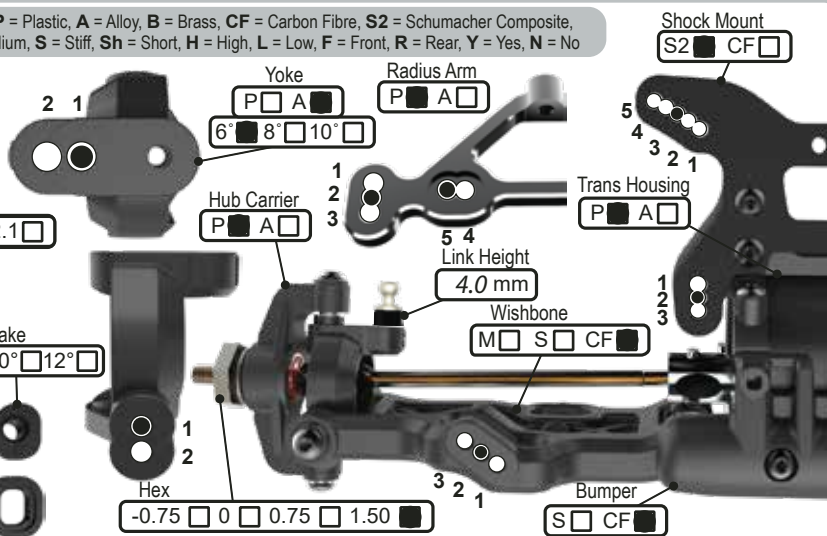
Notes:  
 Front tyres outside glued onto first part of tread.

Notes:  
 Ran a chassis skin. Ride height without a chassis skin would be 12mm  
 4mm belts

**FRONT SUSPENSION**

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

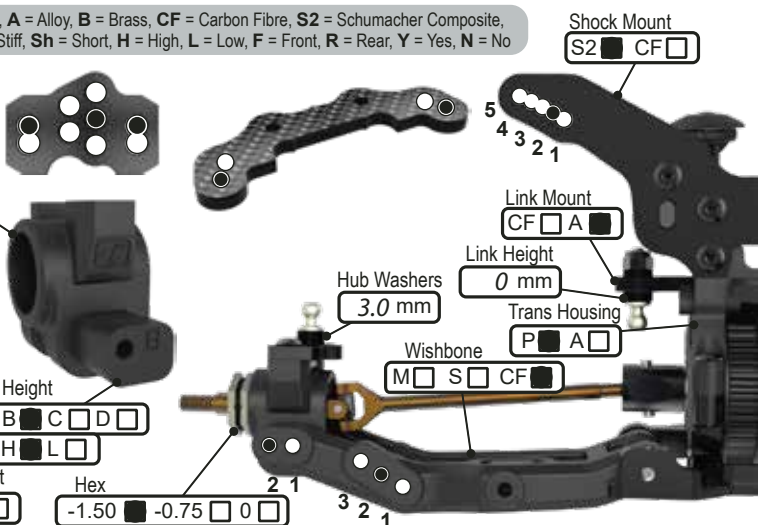
Ride Height   
 Wheelbase  Long  Short   
 Toe  In  Out   
 Camber at Ride Height   
 Anti Roll Bar  None  1.2  1.4  1.6  1.8  1.9  2.0  2.1   
 Hub Height  H  L   
 Bump Steer Washers   
 Hingepin Height  H  L   
 Driveshaft Type  Roche  U/J   
 Steering Arm  Kit  1 Dot  2 Dot  3 Dot   
 Track  Narrow  Mid  Wide   
 Front Strap  A  B   
 Rake  8°  10°  12°   
 Hex  -0.75  0  0.75  1.50



**REAR SUSPENSION**

KEY: P = Plastic, A = Alloy, B = Brass, CF = 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   
 Wheelbase  Sh  M  L   
 Anti-Squat  1°  2°  3°  4°   
 Toe  4°  3.5°  3°  2.5°  2°  1.5°  1.0°  0.5°   
 Camber at Ride Height   
 Anti Roll Bar  None  1.2  1.4  1.6  1.8  1.9  2.0  2.1   
 Wing Gurney Height   
 Driveshaft Type  CVD  U/J   
 Gearbox Riser  Y  N   
 Hub Height  A  B  C  D   
 H  L   
 Pin Height  H  L   
 Hex  -1.50  -0.75  0



**CHASSIS**

Chassis  A  C/F   
 LiPo Position  R  F   
 Running Weight   
 Front Topdeck  S2  CF

Motor   
 Rotor Dia.   
 Timing

Diff Height Front  H  M  L     Diff Height Rear  H  M  L   
 Diff Oil Front     Diff Oil Rear   
 Diff Gears Front  2  4     Diff Gears Rear  2  4   
 Diff Body Front  P  A  CF     Diff Body Rear  P  A  CF

**WEIGHTS**

Radio Tray  Y  N   
 ESC Tray  Y  N   
 Pinion   
 Spur   
 R.O.S  Y  N   
 Lock Out  Y  N   
 Slipper Plates  2  3

**EQUIPMENT**

E.S.C.   
 Servo   
 RX   
 LiPo   
 Bodysell   
 Wing

**TRANSMISSION**

**SHOCKS**

KEY: i = Internal, e = External, V = Vented, S = Sealed, A = Aeration

	FRONT	REAR
Cap	<input type="checkbox"/> V <input type="checkbox"/> S <input type="checkbox"/> A <input checked="" type="checkbox"/>	<input type="checkbox"/> V <input type="checkbox"/> S <input type="checkbox"/> A <input checked="" type="checkbox"/>
Kashima	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
Oil	<input type="text" value="650 cSt"/>	<input type="text" value="500 cSt"/>
Piston	<input type="text" value="Tapered 2 x 1.6"/>	<input type="text" value="Tapered 2 x 1.8"/>
Spring	<input type="text" value="Black lb/in"/>	<input type="text" value="Black lb/in"/>
Limiters (i)	<input type="text" value="0 mm"/>	<input type="text" value="0 mm"/>
Stroke	<input type="text" value="22.8 mm"/>	<input type="text" value="28.0 mm"/>
Limiters (e)	<input type="text" value="0 mm"/>	<input type="text" value="0 mm"/>
Shock Stand Off	<input type="text" value="3.0 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

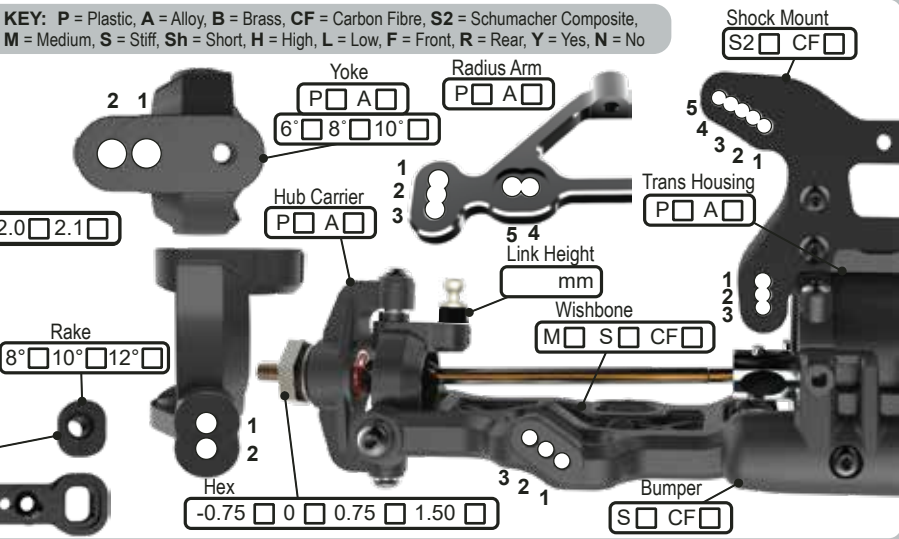
	FRONT	REAR
Tyres	_____	_____
Wheels	_____	_____
Inserts	_____	_____

Notes: \_\_\_\_\_

Notes: \_\_\_\_\_

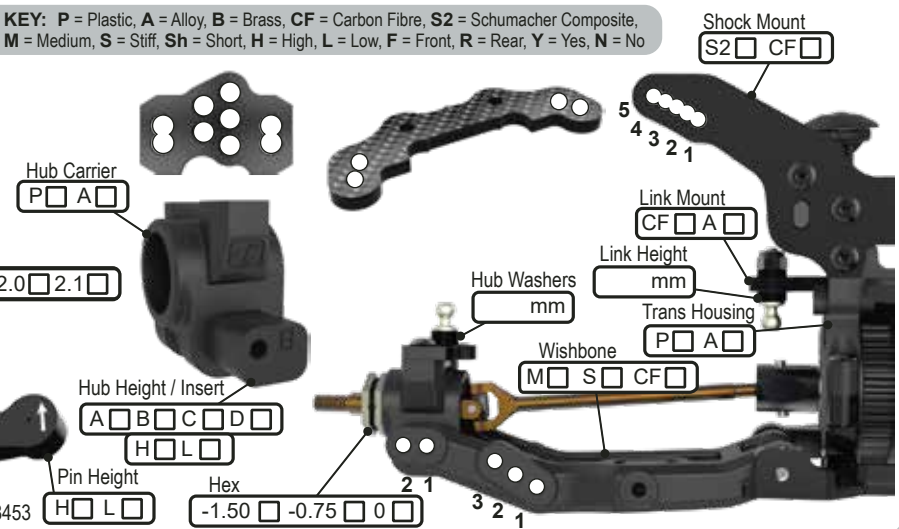
### FRONT SUSPENSION

Ride Height \_\_\_\_\_ mm  
 Wheelbase Long  Short   
 Toe \_\_\_\_\_ deg In  Out   
 Camber at Ride Height \_\_\_\_\_ deg  
 Anti Roll Bar None  1.2  1.4  1.6  1.8  1.9  2.0  2.1   
 Hub Height H  L   
 Bump Steer Washers \_\_\_\_\_ mm  
 Hingepin Height H  L   
 Driveshaft Type Roche  U/J   
 Steering Arm Kit  1 Dot  2 Dot  3 Dot   
 Track Narrow  Mid  Wide   
 Front Strap A  B



### REAR SUSPENSION

Ride Height \_\_\_\_\_ mm  
 Wheelbase Sh  M  L   
 Anti-Squat 1°  2°  3°  4°   
 Toe 4°  3.5°  3°  2.5°  2°  1.5°  1.0°  0.5°   
 Camber at Ride Height \_\_\_\_\_ deg  
 Anti Roll Bar None  1.2  1.4  1.6  1.8  1.9  2.0  2.1   
 Wing Gurney Height \_\_\_\_\_ mm  
 Driveshaft Type CVD  U/J   
 Gearbox Riser Y  N   
 Hub Height / Insert A  B  C  D   
 Pin Height H  L   
 High Pin Requires U8453



### CHASSIS

Chassis A  C/F   
 LiPo Position R  F   
 Running Weight \_\_\_\_\_ g  
 Front Topdeck S2  CF

### WEIGHTS

Radio Tray Y  N   
 ESC Tray Y  N   
 Pinion \_\_\_\_\_ t  
 Spur \_\_\_\_\_ t  
 R.O.S Y  N   
 Lock Out Y  N   
 Slipper Plates 2  3

### EQUIPMENT

E.S.C. \_\_\_\_\_  
 Servo \_\_\_\_\_  
 RX \_\_\_\_\_  
 LiPo \_\_\_\_\_  
 Bodysell \_\_\_\_\_  
 Wing \_\_\_\_\_

### TRANSMISSION

Diff Height Front H  M  L  Diff Height Rear H  M  L   
 Diff Oil Front \_\_\_\_\_ cSt Diff Oil Rear \_\_\_\_\_ cSt  
 Diff Gears Front 2  4  Diff Gears Rear 2  4   
 Diff Body Front P  A  CF  Diff Body Rear P  A  CF

### SHOCKS

KEY: i = Internal, e = External, V = Vented, S = Sealed, A = Aeration

	FRONT	REAR
Cap	V <input type="checkbox"/> S <input type="checkbox"/> A <input type="checkbox"/>	V <input type="checkbox"/> S <input type="checkbox"/> A <input type="checkbox"/>
Kashima	Y <input type="checkbox"/> N <input type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>
Oil	_____ cSt	_____ cSt
Piston	_____	_____
Spring	_____ lb/in	_____ lb/in
Limiters (i)	_____ mm	_____ mm
Stroke	_____ mm	_____ mm
Limiters (e)	_____ mm	_____ mm
Shock Stand Off	_____ mm	_____ mm

Notes: \_\_\_\_\_