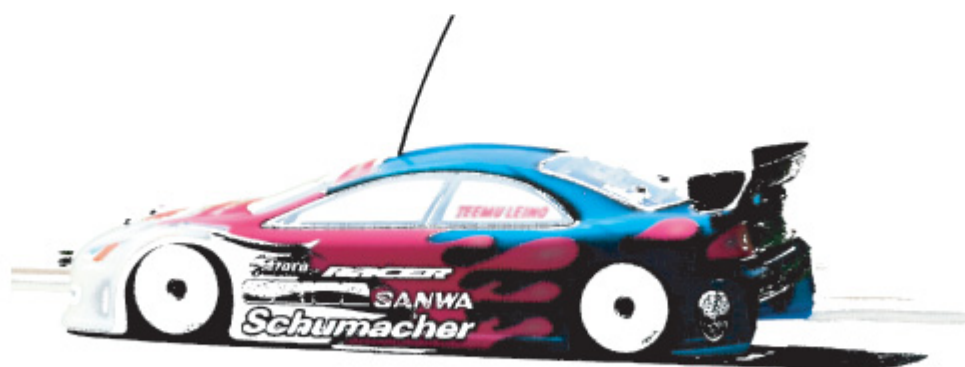




European Champion Special Edition
&
USA Foam Spec Edition

Instruction Manual v1.0



Schumacher Racing
71-73 Tenter Road
Moulton Park
Northampton
NN3 6AX
ENGLAND



www.racing-cars.com

Schumacher USA Inc
6302 Benjamin Road
Suite 404
Tampa
Florida 33634
U.S.A.

SIII4

IMPORTANT SAFETY NOTES

- This product is not suitable for children under the age of 14, without the direct supervision of an adult.
- Select an area for assembly that is away from reach of very small children. The parts are small and can be swallowed by children causing choking and possible internal injuries.
- Exercise care when using any hand tools and sharp instruments during construction.
- Carefully read all manufacturers warnings and cautions for any parts used in the construction & use of your **miPEC**.



POINTS WHERE SHOCK OIL SHOULD BE APPLIED



POINTS WHERE MOLY GREASE SHOULD BE APPLIED
(It will reduce friction & assure smooth movement)



POINTS WHERE SILICONE GREASE SHOULD BE APPLIED

Do not use excessive force when tightening the selftapping screws, or you may strip the thread in the plastic. It is recommended to stop tightening it when the threaded part on the screw goes into the plastic part and you feel some resistance from the tightening.



Good



Over tighten and you may strip the thread in the plastic

In line with our policy of continuous development the exact specification of the kit may vary.

MISSING OR DEFECTIVE PARTS

In the unlikely event of any problems with your new kit you should contact the model shop where you purchased, quoting part number, bag number and batch

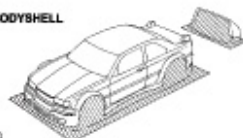
FOR BEST PERFORMANCE, IT IS VERY IMPORTANT THAT GREAT CARE IS TAKEN TO ENSURE THE FREE MOVEMENT OF ALL PARTS.

ADDITIONAL ITEMS REQUIRED EQUIPEMENTS NECESSAIRES ACCESORIOS ADICIONALES BENÖTIGTES ZUBEHÖR NÖDVÄNDIGA TILLBEHÖR ACCESSORI NECESSARI

TYRES AND INSERTS



BODYSHELL



TRANSMITTER ÉMETTEUR EMISORA

FERNSTEUERENDER MIT MINDESTENS 2 KANÄLEN
FJÄRRSTYRNING MED MINST 2 KANÄLER
TRANSMITTENTE 2 CANAL

8 PIN CELLS (FOR TRANSMITTER)

8 PILS POUR L'ÉMETTEUR
8 PILAS (PARA LA EMISORA)
8 MIGNON-ZELLEN FOR SENDER
8 ST BATTERIER FOR SÄNDEREN
8 BATTERIE PER TRANSMITTENTE



STEERING SERVO SERVO DE DIRECTION SERVO DE DIRECTION LENKSERVO SERVO FOR STYRING SERVOCOMANDO DELLO STERZO



RECEIVER RECEPTEUR RECEPTOR SÄMFANGARE MOTTAGARE RICEVENTE



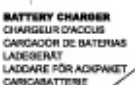
MOTOR & PINION MOTEUR ET PIGNON MOTOR Y PIGNON MOTOR & MOTORZITZEL ELMOTOR & PINION MOTORE E PIGNONE



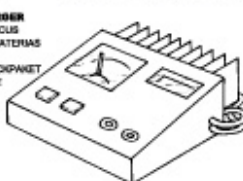
SADDLE BATTERY PACK



SPEED CONTROLLER VARIATEUR ELECTRONIQUE CONTROL DE VELOCIDAD FAHRTREGELER ELEKTRONISKT FARTREGLAGE VARIATORE ELETTRONICO DI VELOCITA



BATTERY CHARGER CHARGEUR D'ACCUS CARGADOR DE BATERIAS LADENGERAT LADGARE FOR ADRPAGET CARICABATTERIE



PAINT FOR BODYSHELL BOISE DE PEINTURE POUR LA CARROSSERIE PINTURA CARROCERIA LEXANFÄRBER FÖR DIE KAROSSERIE LEXANFÄR TILL KAROSSEN VERNICE SPRAY PER POLI CARRONATO



TOOLS REQUIRED



7mm AF SOCKET SPANNER
CLÉ DE 7mm À PIPE OU DIMANCHÉE
LLAVE DE TUBO DE 7mm
STECKSCHLOSS 7mm
7mm HYLSSNYCKEL
CHAVE A TUBO DA 7mm



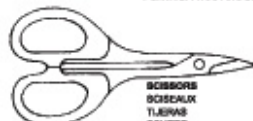
5.5mm AF SOCKET SPANNER
CLÉ DE 5.5mm À PIPE OU DIMANCHÉE
LLAVE DE TUBO DE 5.5mm
STECKSCHLOSS 5.5mm
5.5mm HYLSSNYCKEL
CHAVE A TUBO DA 5.5mm



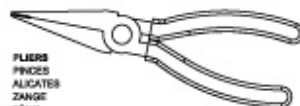
FLAT SCREWDRIVER
TOURNEVIS PLAT
ATORNILLADOR PLANO
SCHRAUBENZIEHER
SKRUVMEJSEL
CACCIVITE A TAGLIO



6mm DRILL BIT
OUTIL DE FORAGE 6mm
BROCA DE 6mm
BOHRER 6mm
6mm BORR
PUNTA DA TRAPANO DA 6mm



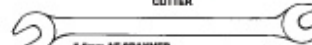
SCISSORS
CISEAUX
TIJERAS
SCHERE
SAK
FORBICE



PLIERS
PINCES
ALICATES
ZANGE
TANG
PINZA A BECCO-I SOTTILI

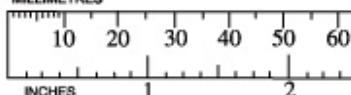


SCALPEL
CUTLER
CUSILLA
SCHARFES MESSER
HÖRBYKNIV
CUTTER



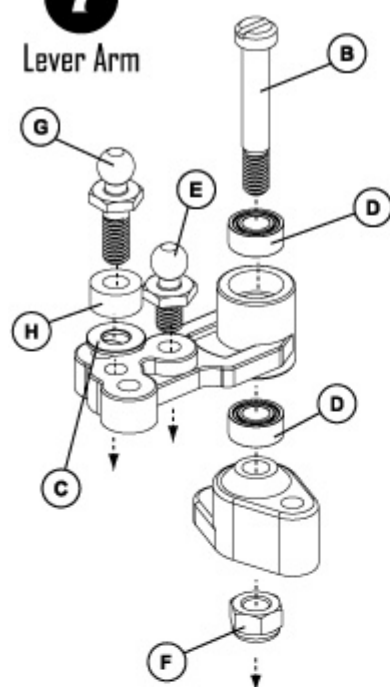
5.5mm AF SPANNER
CLÉ PLATE DE 5.5mm
LLAVE FLA 5.5mm
GABELSCHLOSS 5.5mm
5.5mm FAST NYCKEL
CHAVE INGLESE DA 5.5mm

RULER MILLIMETRES

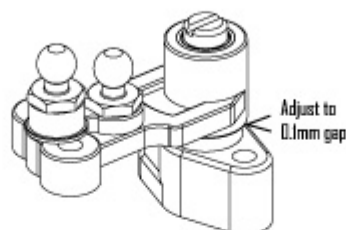


1

Lever Arm



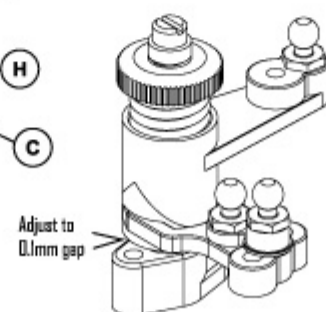
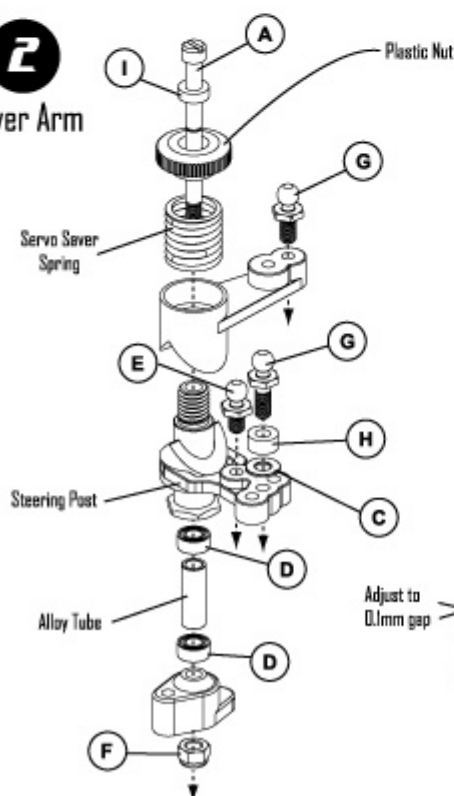
TRACK TIP
Ensure that the steering posts are screwed in as vertically as possible (90°).



Assembly 1

2

Saver Arm



Assembly 2

Schumacher

mi2ec

STEERING ASSEMBLY

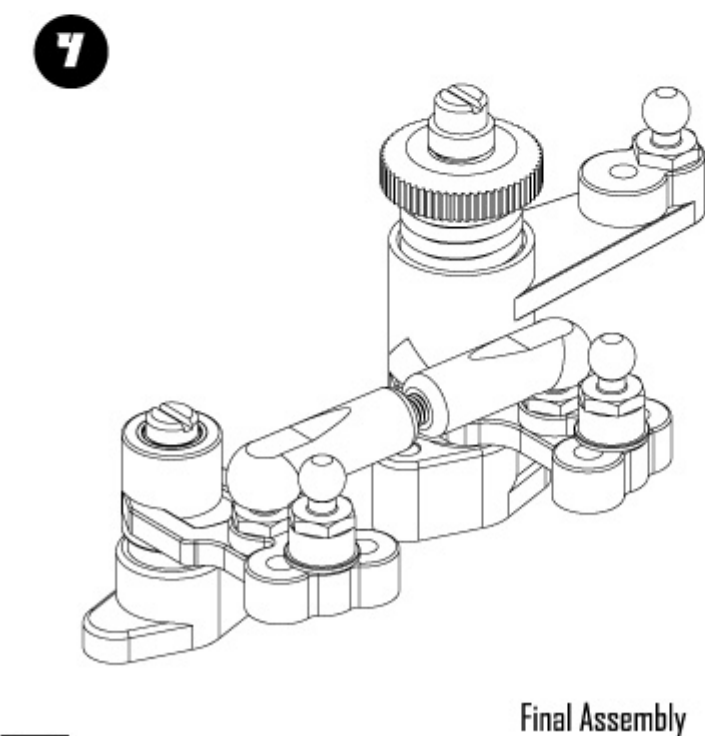
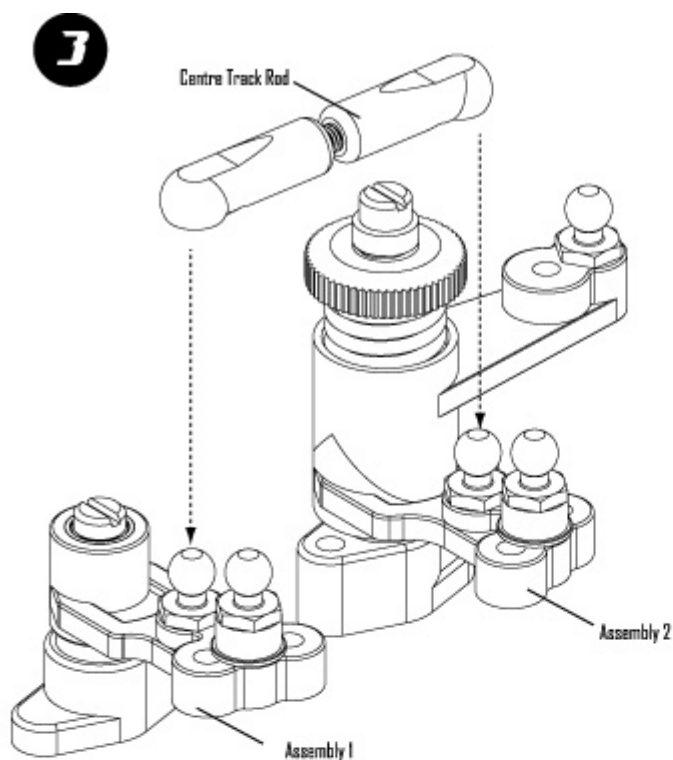
Parts required:

- A** Steering Post Long x 1
- B** Steering Post Short x 1
- C** M3 Washer x 2
- D**
- E** Ball Stud Ultra Short x 2
- F** M3 Nyloc Nut x 2
- G** Ball Stud Short x 3
- H** 2mm Alloy Spacer x 2
- I** 2mm Plastic Spacer x 1

USA FOAM SPEC EDITION

2 Saver Arm Do not fit part **1**

1



Schumacher

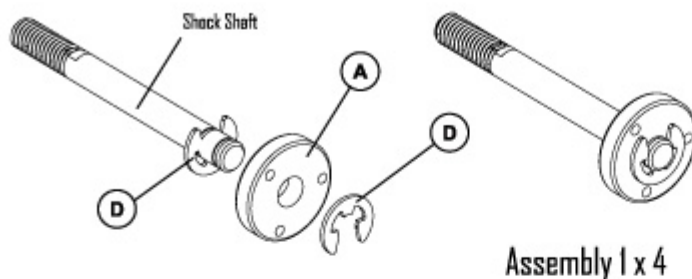
mtec
Master Technician Equipment Centre

STEERING ASSEMBLY
 Continued.

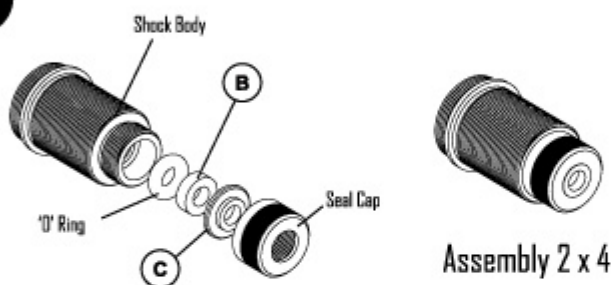


1

N.B.
Assemble 4 units.



2



3



4



Fill Slowly With Shock Oil until Domed.
Move Piston Up and Down and Allow
all Air Bubbles to Rise and disappear.

35wt all round - Tarmac/Asphalt

Assemble 4

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MiPEC

SHOCK ASSEMBLY
Parts required:

A Piston x 4

B Bush x 4

C Top Hat x 4

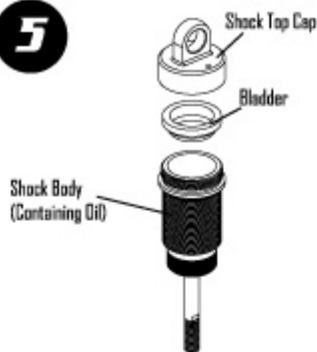
D "E" clip x 8

USA FOAM
SPEC EDITION

7 70wt Front Shocks
40wt Rear Shocks

J

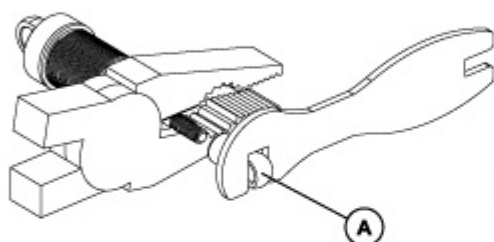
5



Place Bladder onto Filled Shock. Wipe Away any Excess Oil. Screw on Cap. Push up Rod. It Should Return Slowly to 3/4 of its Original Length. If it Returns Quickly to its Full Length There is too Much Oil in the Shock. If it Does Not Return to 3/4 There is Too Little Oil in the Shock.

Assemble 4

6



Grip the piston rod in the flats.
BE CAREFUL NOT TO DAMAGE THE SHOCK ROD.

Screw **A** onto Shaft
Until no Thread is Showing.

7



8



Final Assembly x 4

7

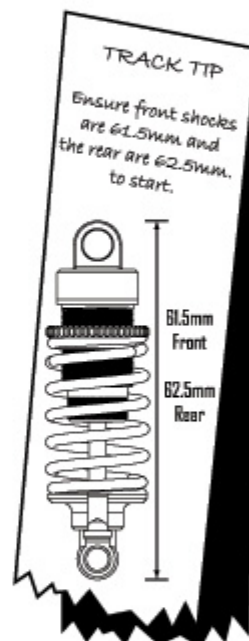
Schumacher

MIPAC

SHOCK ASSEMBLY
Continued.
Parts required:

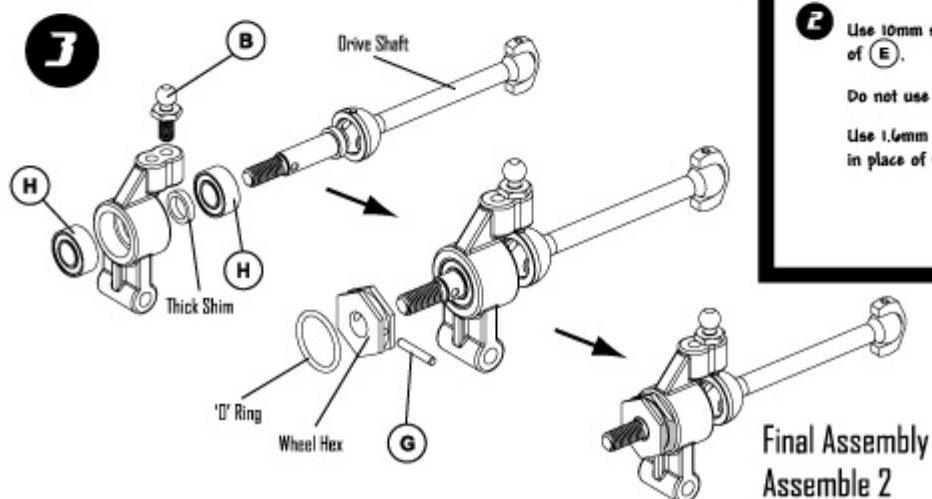
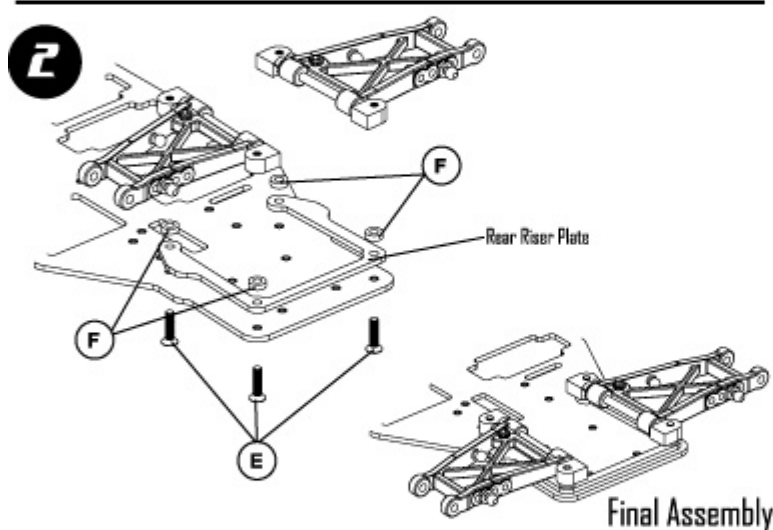
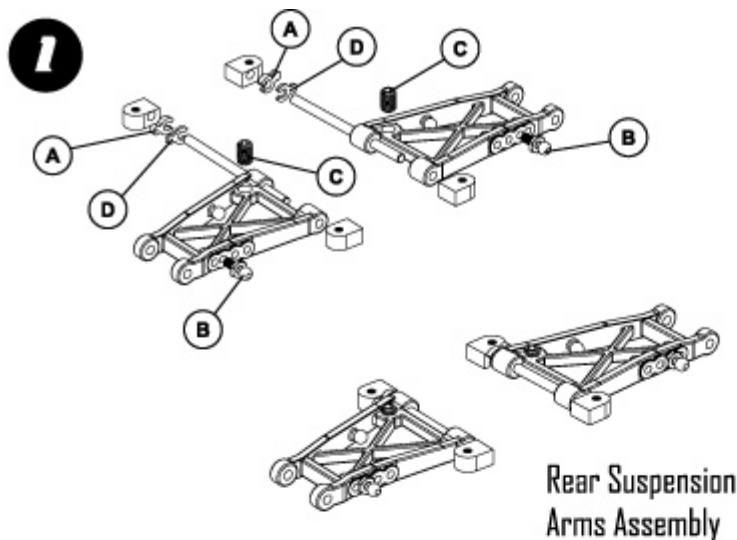


Ball Socket x 4



**USA FOAM
SPEC EDITION**

7 Fit Purple springs on the front shocks and Red springs on the rear shocks.



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mIPec

BAG 1 ASSEMBLY

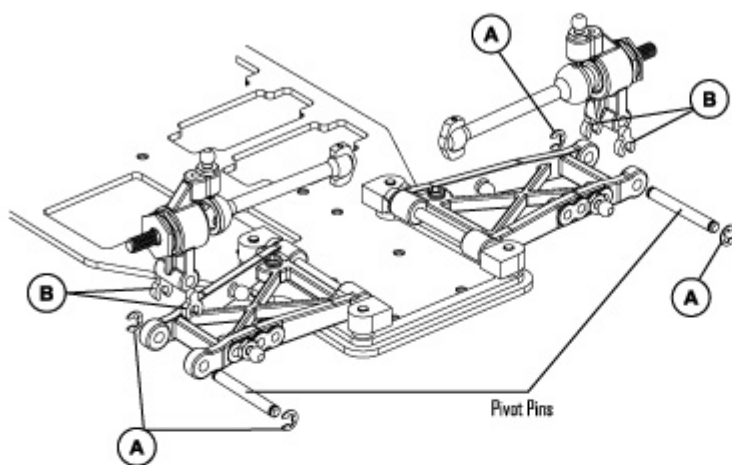
Parts required:

- A** 2mm Kwik Clip x 2
- B** Ball Stud Short x 4
- C** M5 x 8mm Grub x 2
- D** 1mm Kwik Clip x 2
- E** M3 x 12 CSK Allen Screw x 4
- F** 2mm Spacer x 4
- G** 1.5mm x 9.8mm Needle Roller x 2
- H** 5mm x 10mm x 4mm Bearing x 4

USA FOAM SPEC EDITION

- 2** Use 10mm screws in place of **(E)**.
- Do not use the Riser Plate.
- Use 1.6mm plastic spacers in place of **(F)**.

7



Schumacher

m12EC

BAG 1 ASSEMBLY

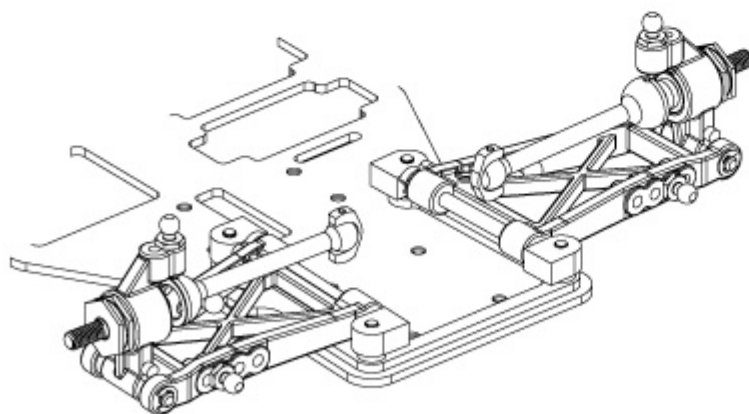
Continued.

Parts required:

A  'E' Clip x 4

B  2mm Kwik Clip x 4

5

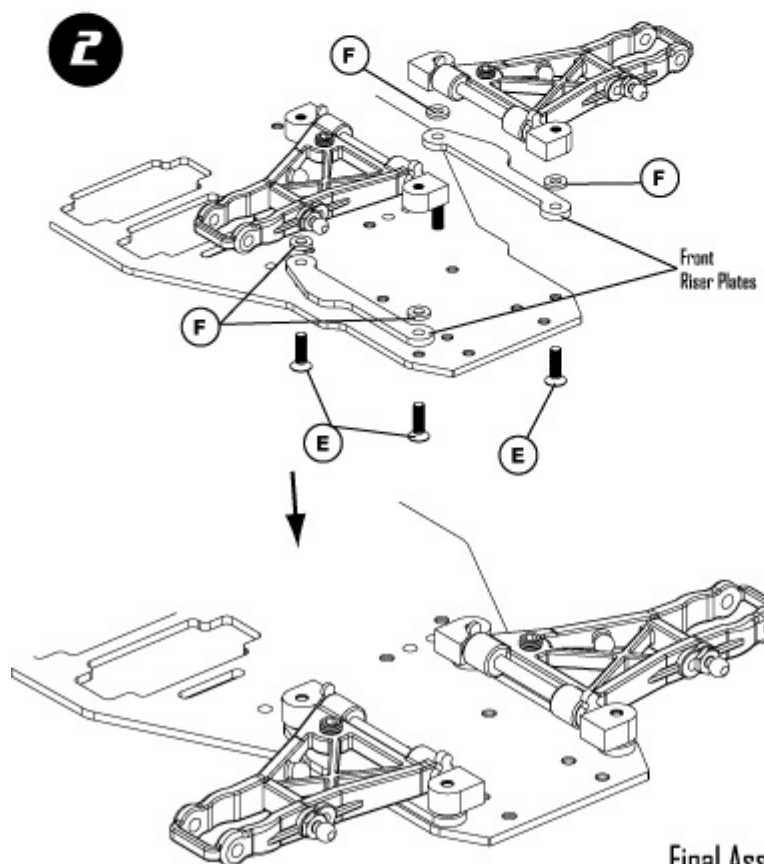
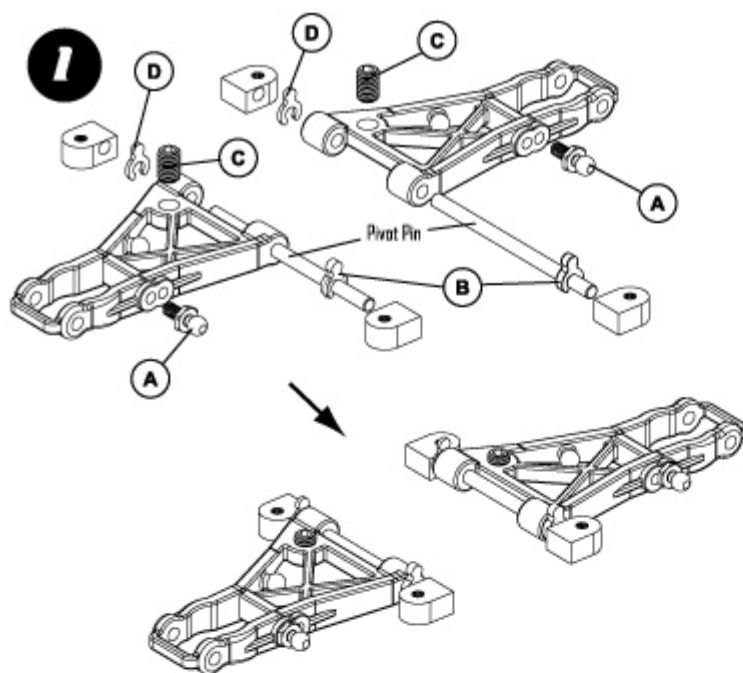


Final Assembly

TRACK TIP

Ensure free movement
suspension parts.

6



Final Assembly

Schumacher

miPEC

BAG 2 ASSEMBLY

Parts required:

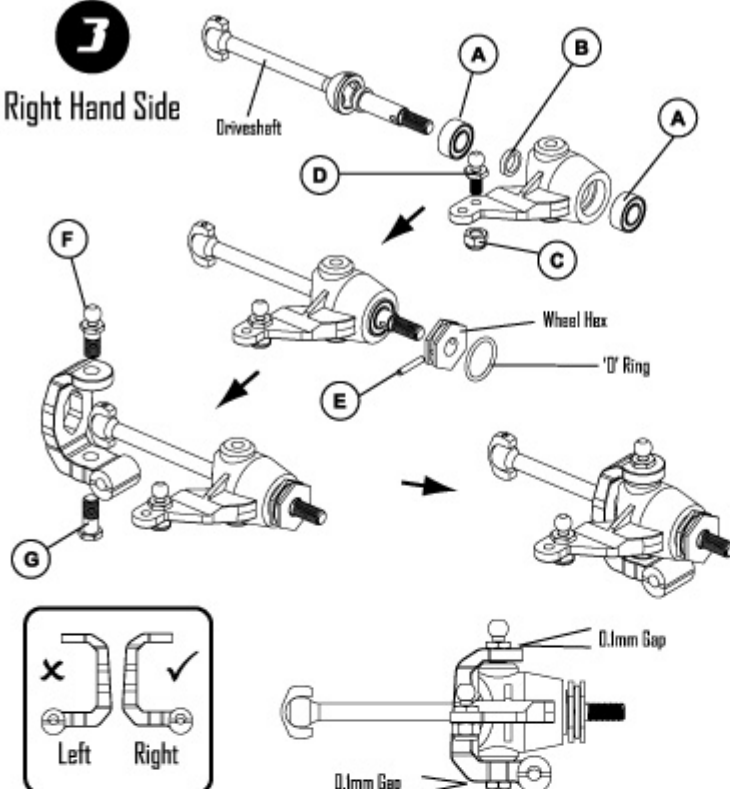
- A**  Ball Stud Short x 2
- B**  2mm Kwik Clip x 2
- C**  MS x 8mm Grub x 2
- D**  1mm Kwik Clip x 2
- E**  M3 x 12mm Csk Allen x 4
- F**  1mm Spacer x 4

USA FOAM SPEC EDITION

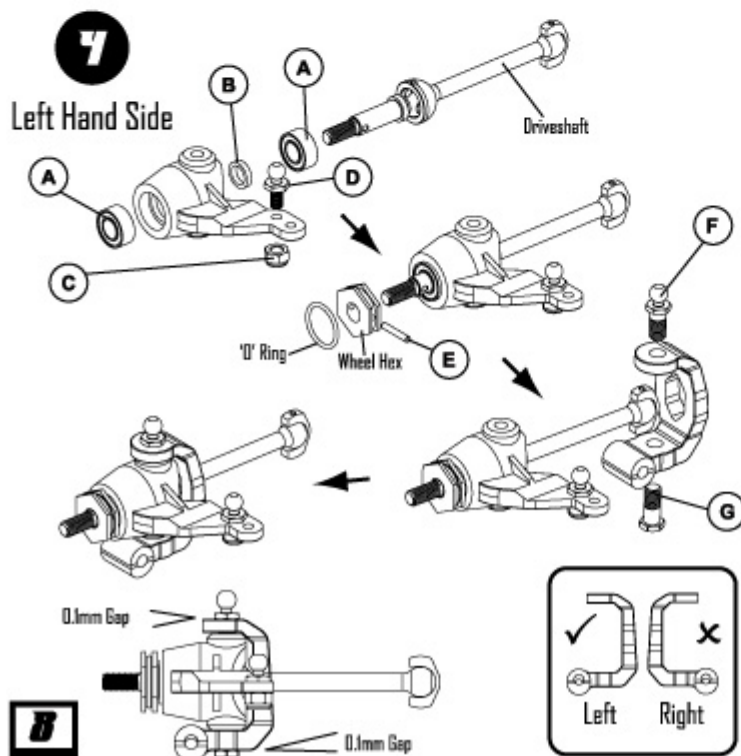
- 2** Use 10mm screws in place of **E**.
- Do not use the Riser Plate.
- Use 1.6mm plastic spacers in place of **F**.

7

3 Right Hand Side



7 Left Hand Side



Schumacher

MIPAC

BAG 2 ASSEMBLY Cont. Parts required:

- A** 5 x 10mm Bearing x 4
- B** Thick Shim x 2
- C** M3 Nyloc Nut x 2
- D** Ball Stud Short M3 x 2
- E** 1.5mm x 9.8mm Needle Roller x 2
- F** M4 Pivot Ball x 2
- G** M4 Pivot x 2

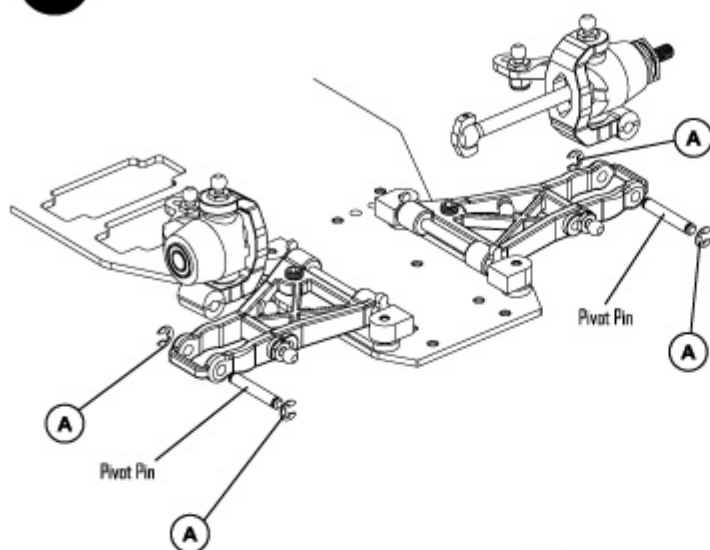
TRACK TIP
Ensure free movement of the hub, in the yoke.

USA FOAM SPEC EDITION

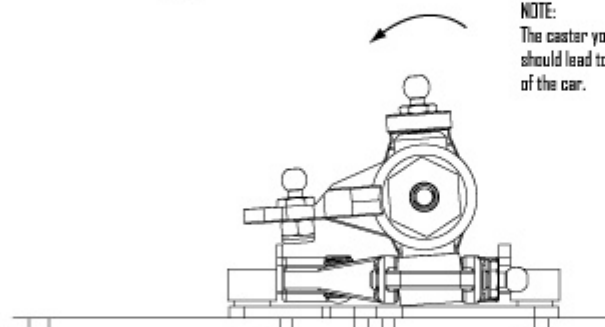
7 Move **D** and **C** to the rear most position on the steering arm.

7 Move **D** and **C** to the rear most position on the steering arm.

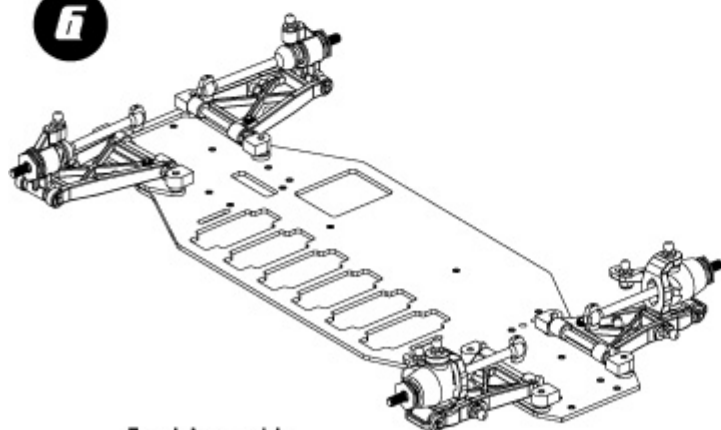
5



NOTE:
The caster yoke assembly
should lead to the rear
of the car.



6



Final Assembly

Schumacher

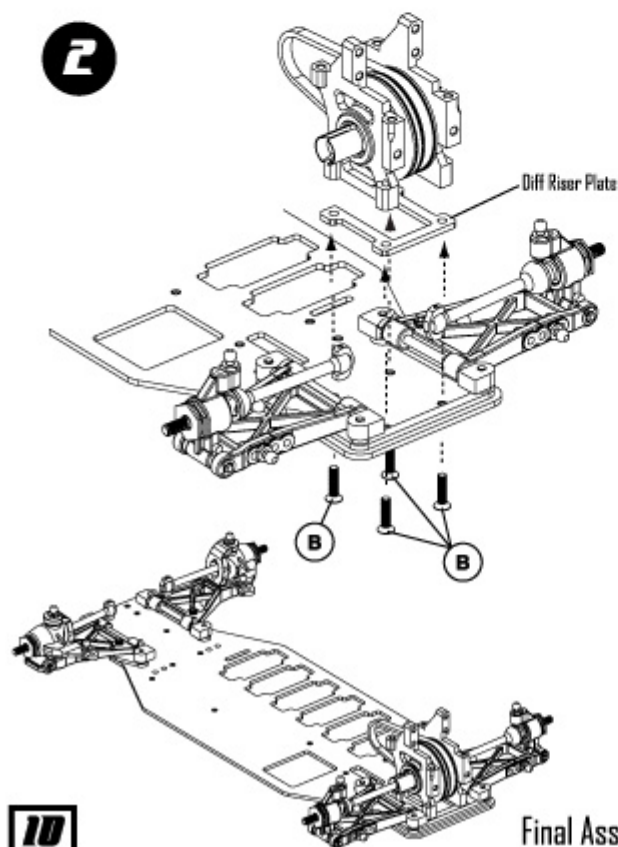
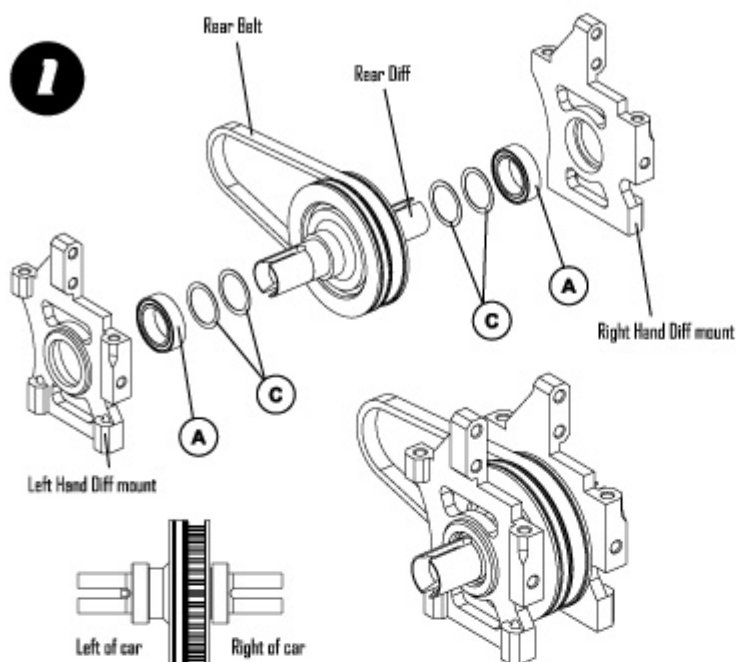
MIP-EC
Complete Champion Speed Edition

BAG 2 ASSEMBLY Cont.
Parts required:

A  **E-clip x 4**

TRACK TIP
Ensure that the
the suspension arms
pivot freely under
their own weight.

9



Schumacher

miPEC

BAG 3 ASSEMBLY Parts required:

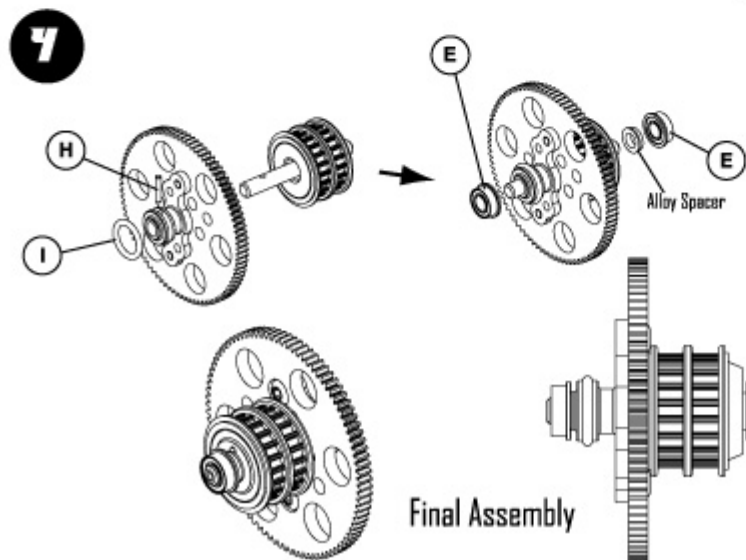
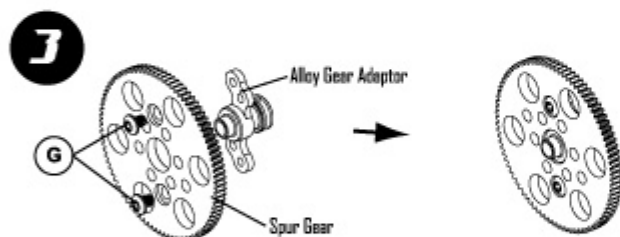
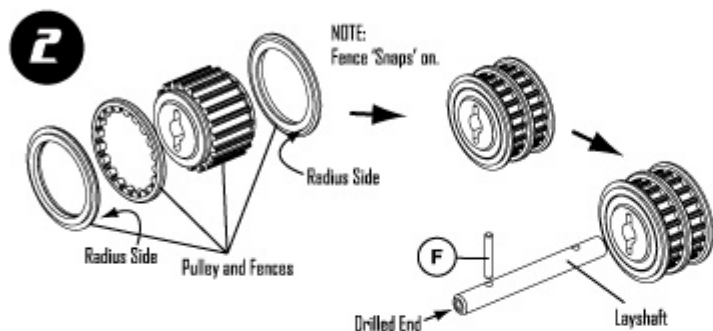
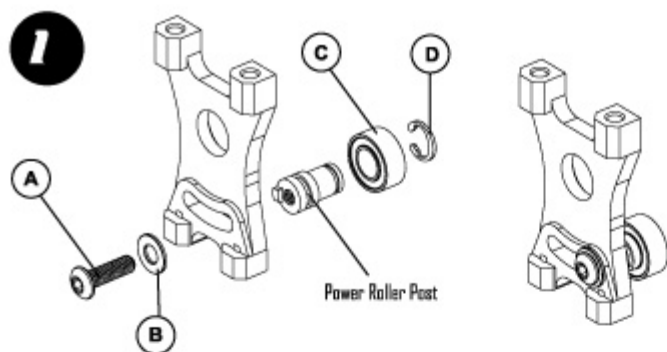
- A**  10mm x 15mm Ball Bearing x 2
- B**  M3 x 12 Csk Allen Head x 4
- C**  Diff Shim x 4



USA FOAM SPEC EDITION

- 2** Use 10mm screws in place of **B**.

Do not use the diff Riser Plate.



Schumacher

MiPEC

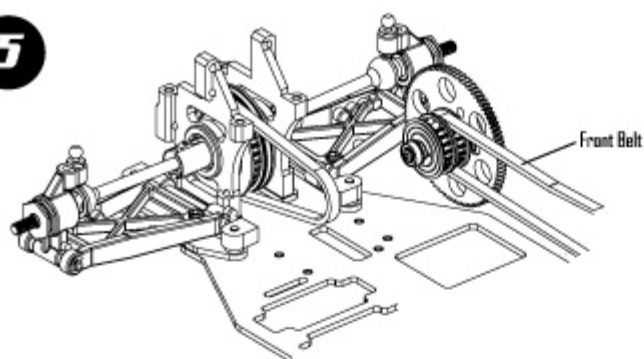
BAG 4 ASSEMBLY

Parts required:

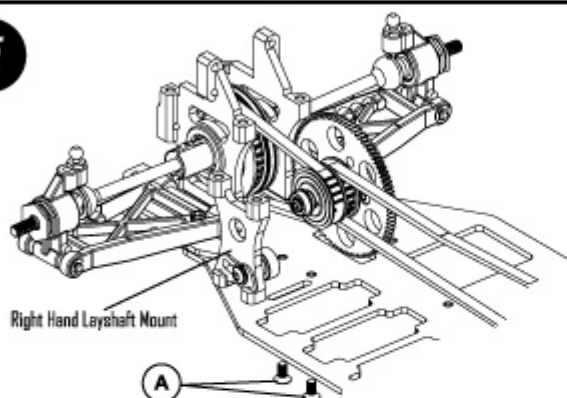
- A**  M3 x 10 Button Head x 1
- B**  M3 Steel Washer x 1
- C**  5mm x 10mm Ball Race x 1
- D**  1/2" Clip x 1
- E**  4mm x 8mm Flanged Ball Race x 2
- F**  1.5mm x 9.8mm Needle Roller x 1
- G**  M3 x 4 Button Head x 2
- H**  1.5mm x 7.8mm Needle Roller x 1
- I**  1/4" Ring x 1



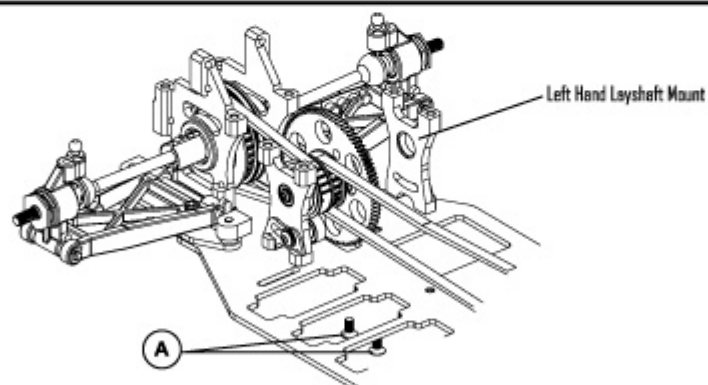
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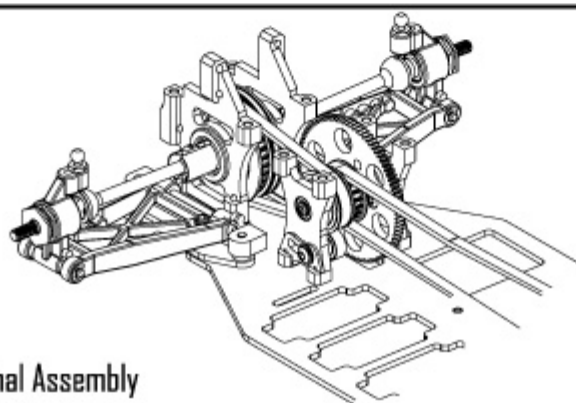
6



7



8



12

Final Assembly

Schumacher

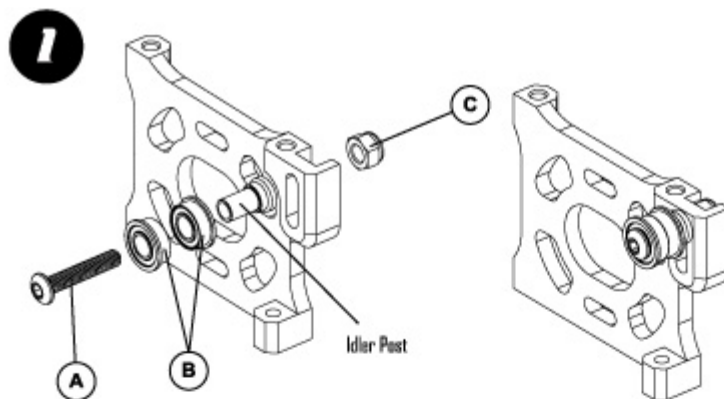
MEC

BAG 4 ASSEMBLY Cont.
Parts required:

A



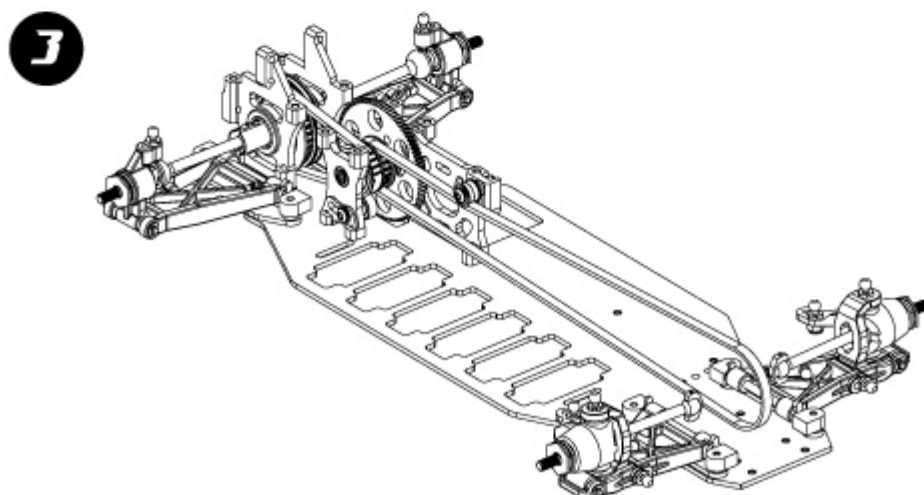
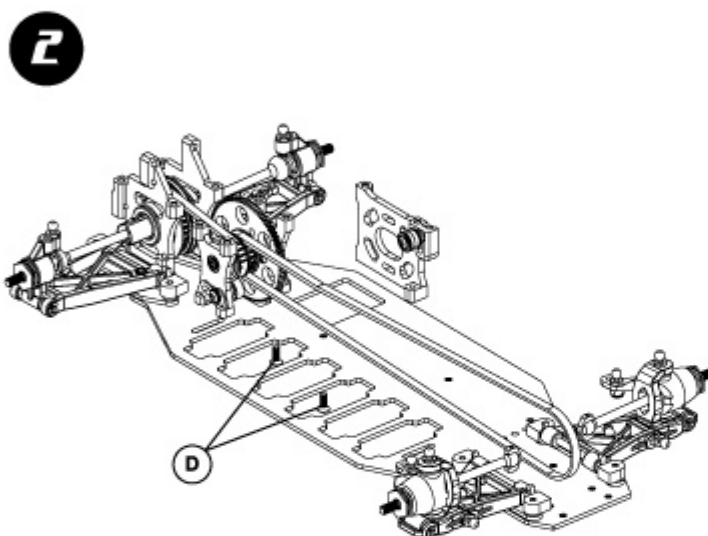
M3 x 6 Csk Allen Head x 4



Schumacher
mPEC
Motor Power Electronics Controller

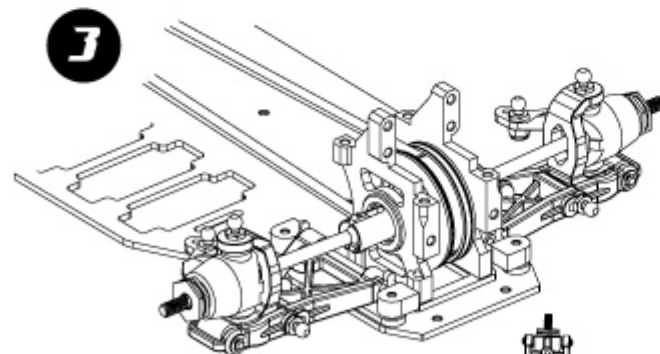
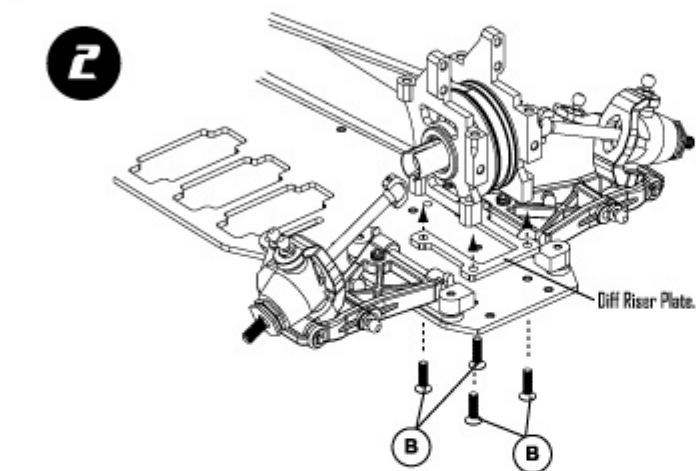
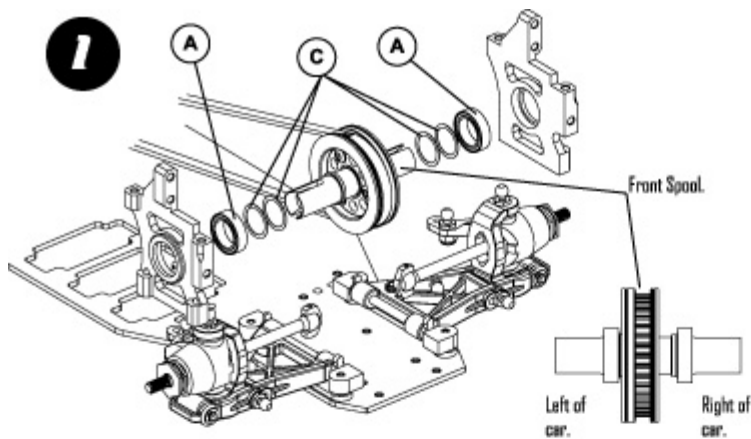
BAG 5 ASSEMBLY
Parts required:

- A** M3 x 16 Button Head x 2
- B** 4mm x 8mm Flanged Ball Race x 2
- C** M3 Nyloc Nut x 1
- D** M3 x 8 Csk Allen Head x 2

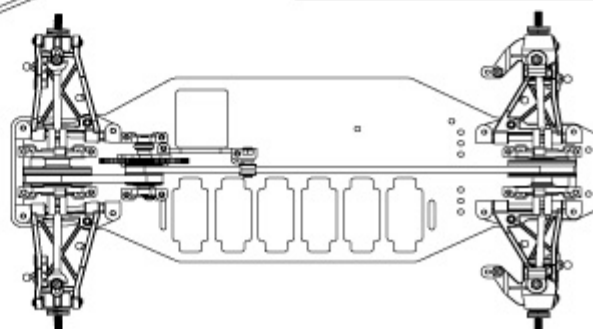


Final Assembly





Final Assembly



Schumacher

mipec

BAG 6 ASSEMBLY

Parts required:



10mm x 15mm Ball Bearing x 2



M3 x 12 Csk Allen Head x 4



Diff Shim x 4

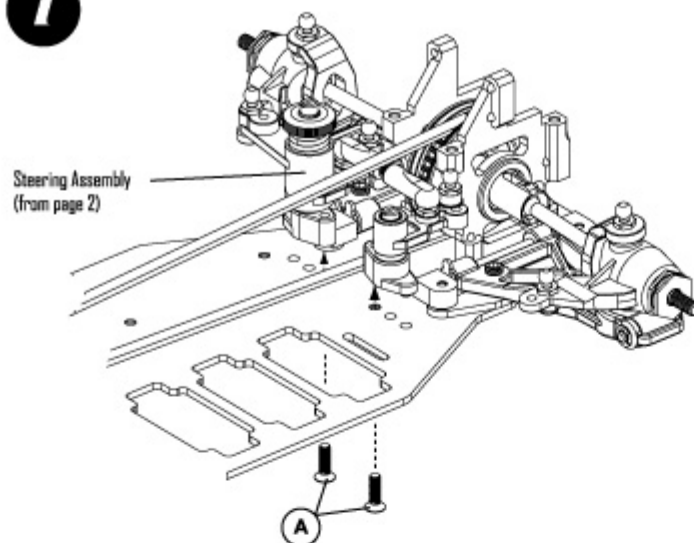


USA FOAM SPEC EDITION

2 Use 10mm screws in place of **B**.

Do not use the Diff Riser Plate.

1



Schumacher

miPEC

BAG 7 ASSEMBLY

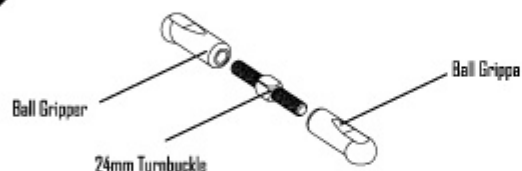
Parts required:

A

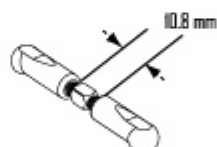


M3 x 10mm Csk Allen x 2

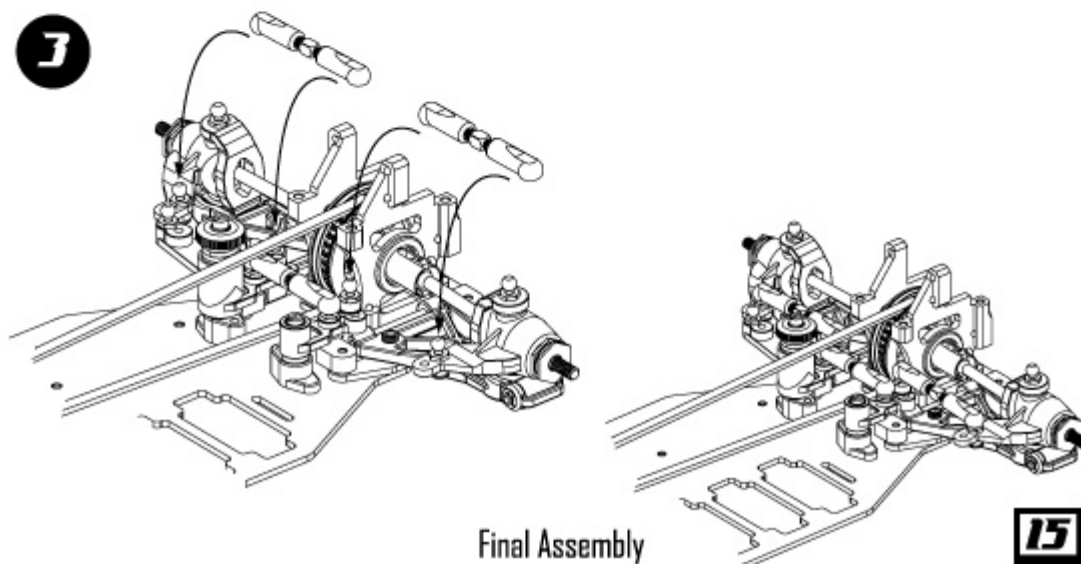
2



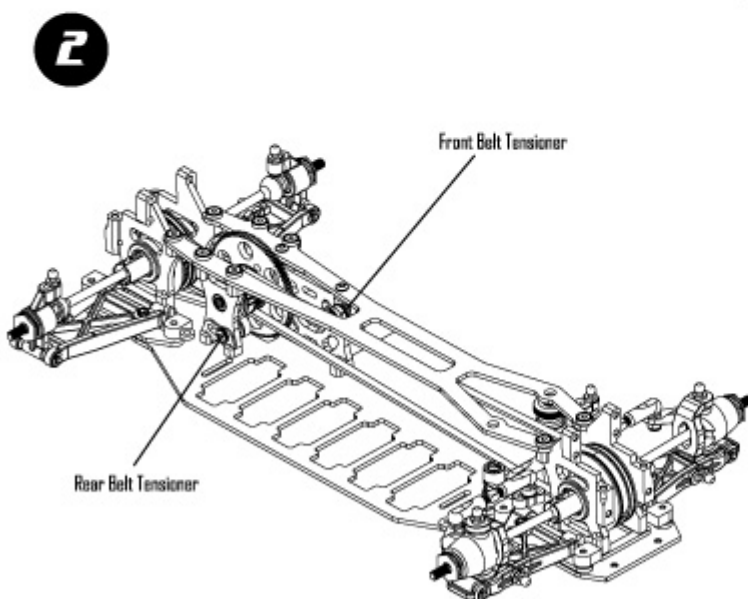
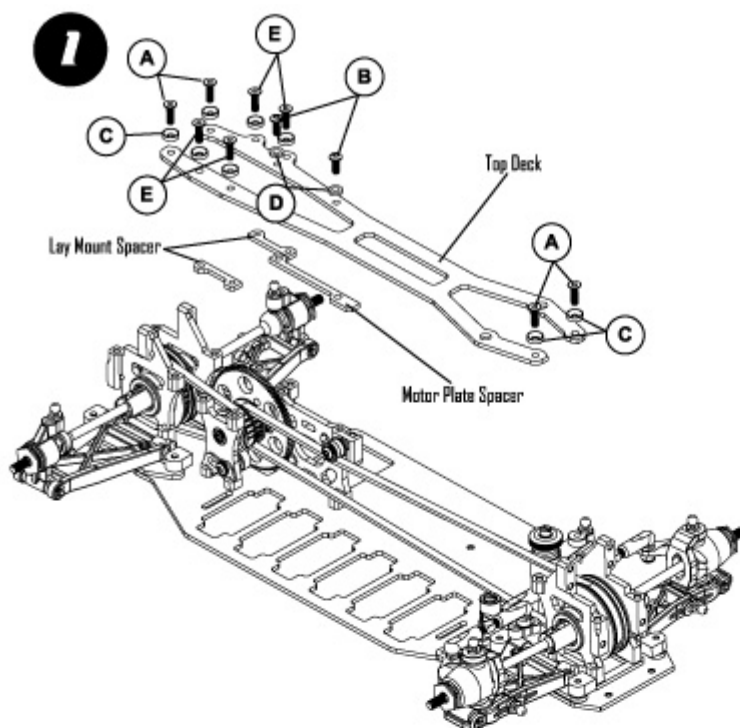
Track Rod (Assemble 2)



3



15



Final Assembly

Schumacher

miPEC

BAG 8 ASSEMBLY Parts required:

- A**  M3 x 10mm Csk Allen x 4
- B**  M3 x 10 Button Head x 2
- C**  M3 Csk Washer x 8
- D**  1mm Alloy Washer Spacer x 2
- E**  M3 x 12 Csk Allen x 12

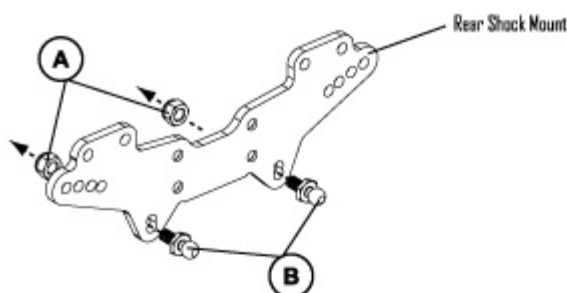
TRACK TIP

The rear belt tensioner is normally only used for modified racing on high traction.

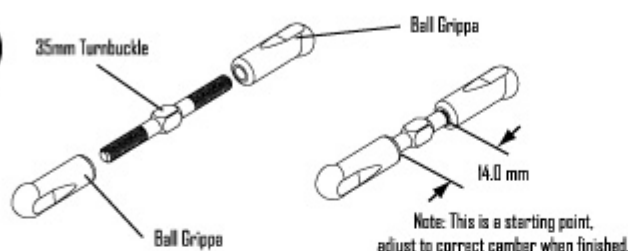
USA FOAM SPEC EDITION

- 1** Do not use the Lay Mount Spacer.
Do not use the Motor Plate Spacer.
Use 10mm screws in place of **E**.
Use 8mm screws in place of **B**.

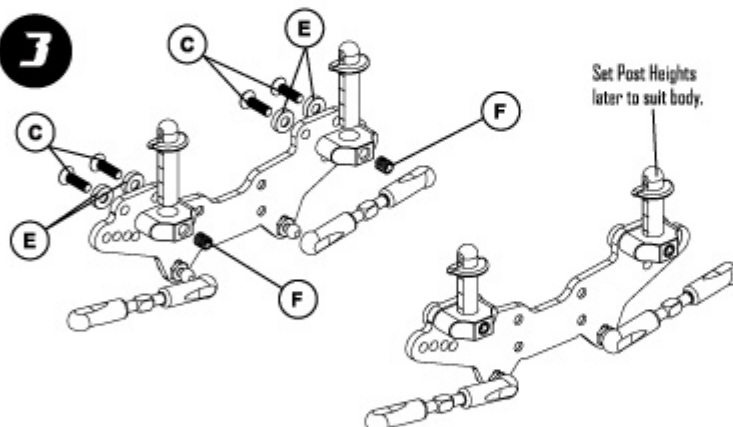
1



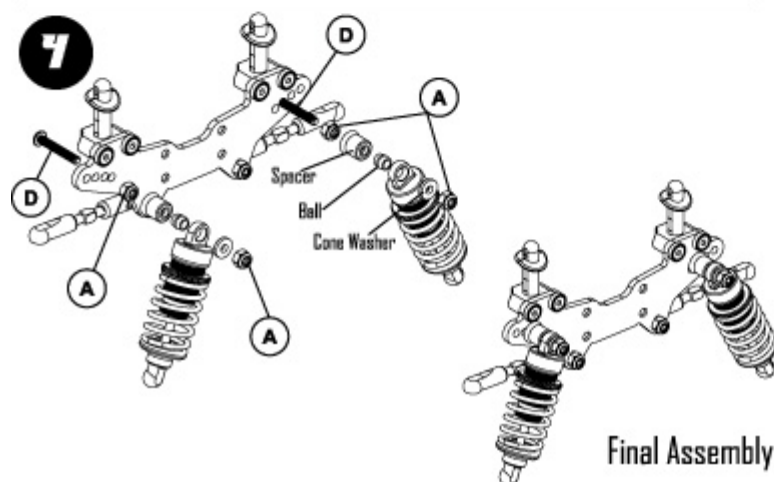
2



3



4



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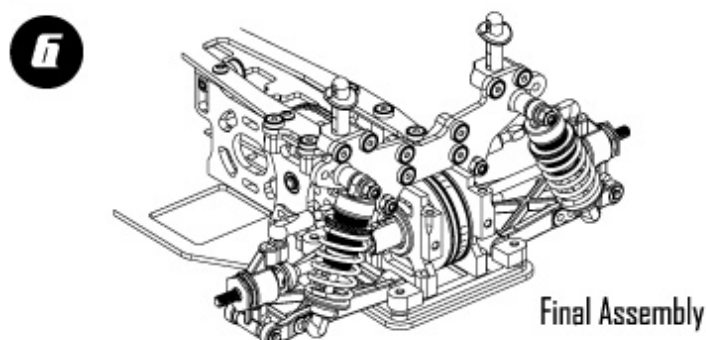
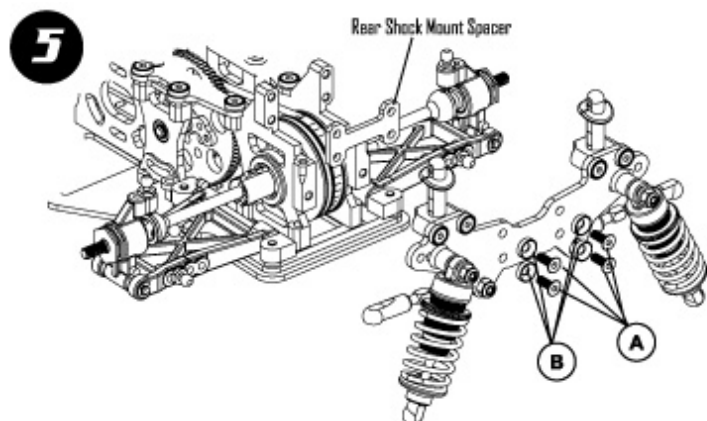
BAG 9 ASSEMBLY

Parts required:

- A** M3 Nyloc Nut x 6
- B** Ball Stud Short M3 x 2
- C** M3 x 10 Csk Allen Head x 4
- D** M3 x 20 Button Head x 2
- E** M3 Cone Washer x 4
- F** M4 x 4 Grub Screw x 2

TRACK TIP
Put all the left hand threaded turnbuckles on the left of the car. This makes it easier when adjusting the lengths on the car, as you turn the link the same way!





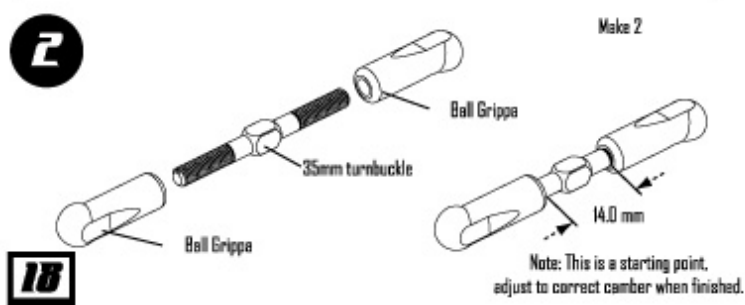
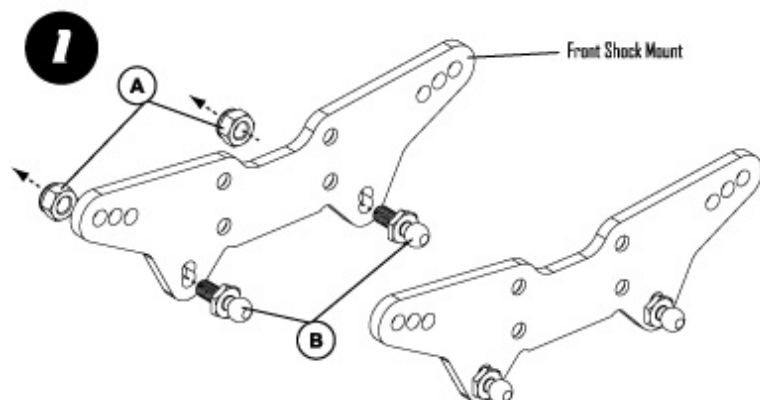
Schumacher

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BAG 9 Continued.
Parts required:

A  M3 x 12 Csk Allen x 4

B  M3 Csk Washer x 4



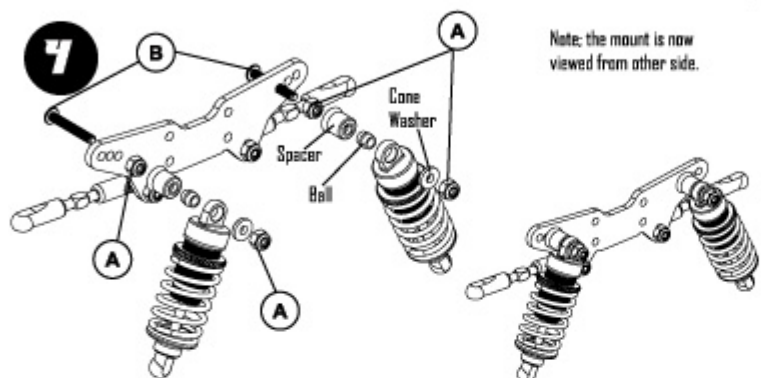
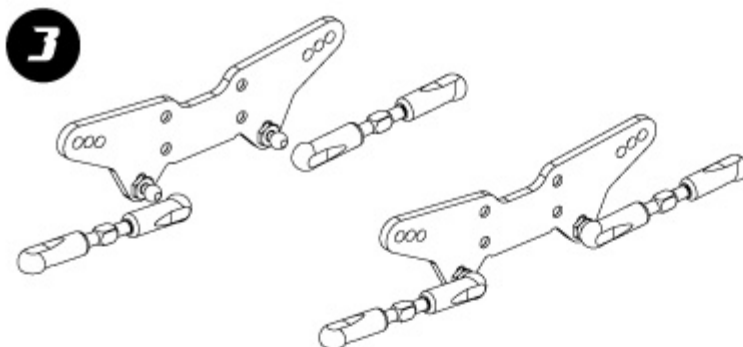
Schumacher

mPEC

BAG 10 ASSEMBLY
Parts required:

A  M3 Nyloc Nut x 2

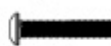
B  Ball Stud Short x 2

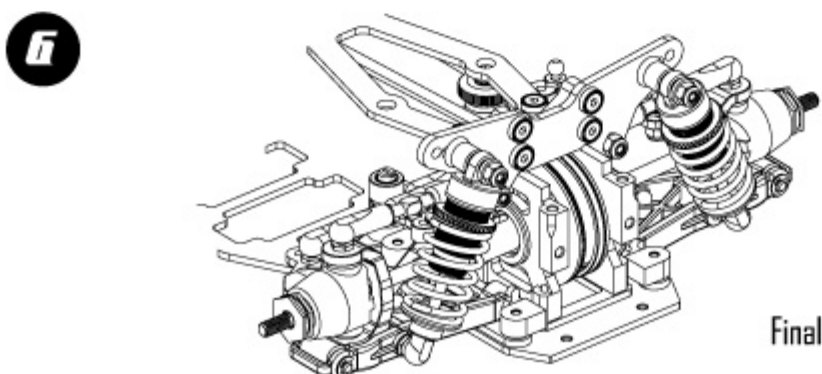
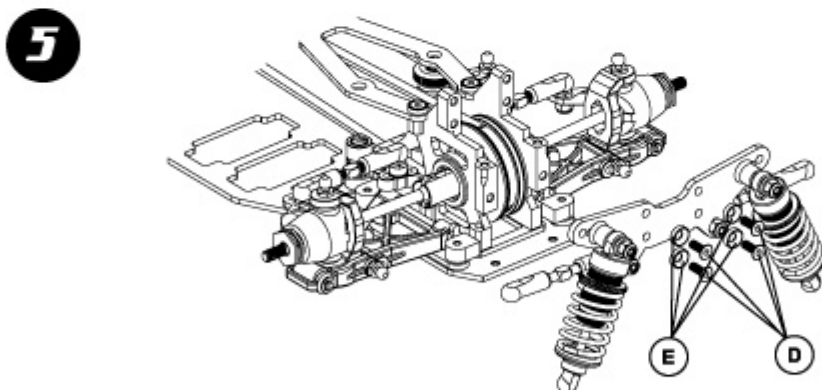


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MTEC

BAG 10 ASSEMBLY Continued.

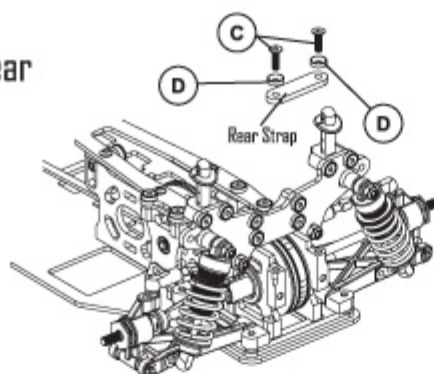
- A**  N3 Nyloc Nut x 6
- B**  N3 x 20 Button Head x 2
- D**  N3 x 10 Csk Allen x 4
- E**  N3 x Csk Washer x 4



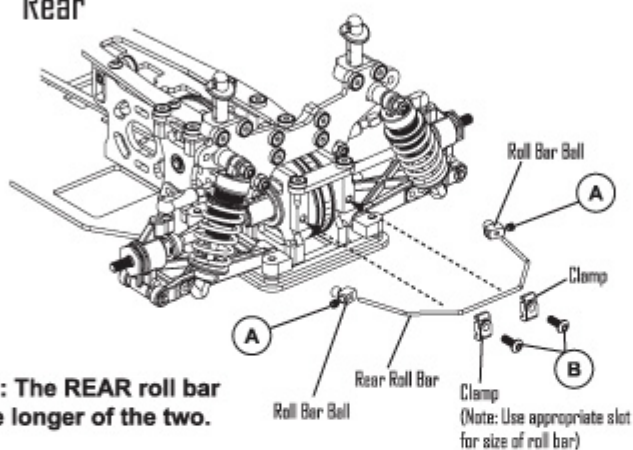
Final Assembly



1 Rear



2 Rear



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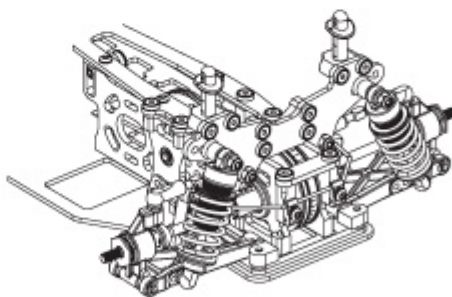
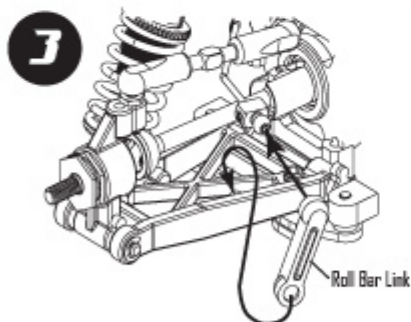
miPEC

BAG II
Parts required:

- A** M3 x 3 Grub Screw x 4
- B** M3 x 8 Button Head x 4
- C** M3 x 8 Csk Allen Head x 2
- D** M3 Csk Washer x 2

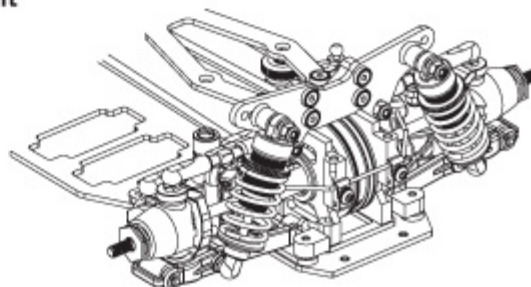
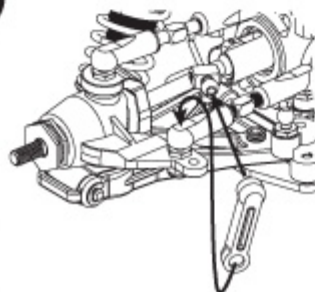
**USA FOAM
SPEC EDITION**

- 2** Use the Yellow 1.7mm roll bar on the front.
Do not fit a rear roll bar.



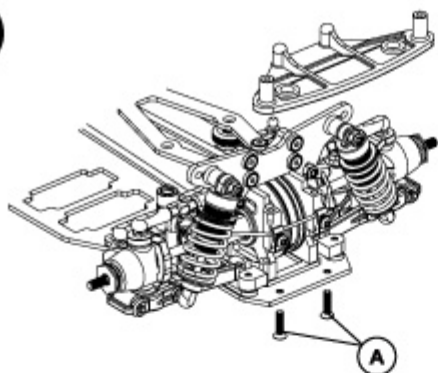
4 Repeat steps 1-2 above for front roll bar.

Front

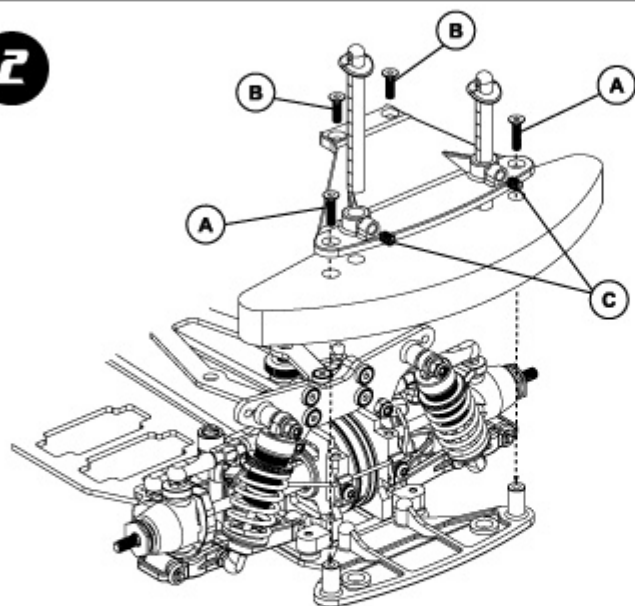


20

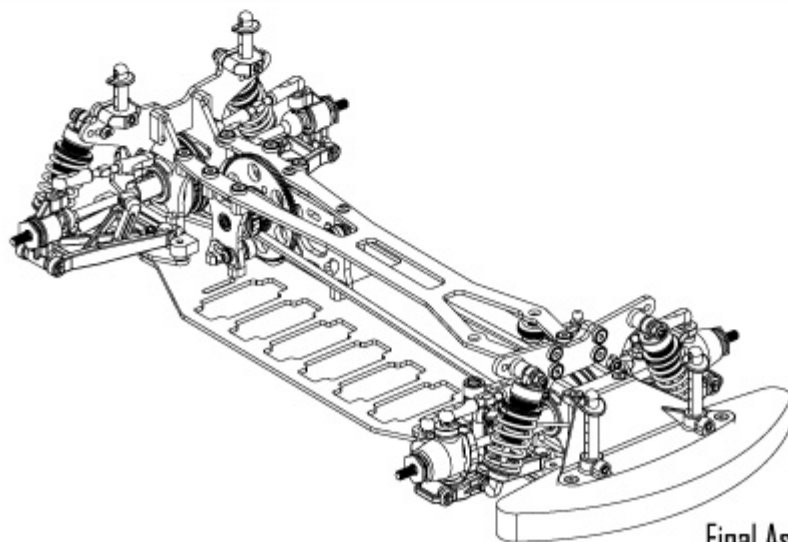
1



2



3



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mi2ec

FRONT BODY MOUNTS

Parts required:

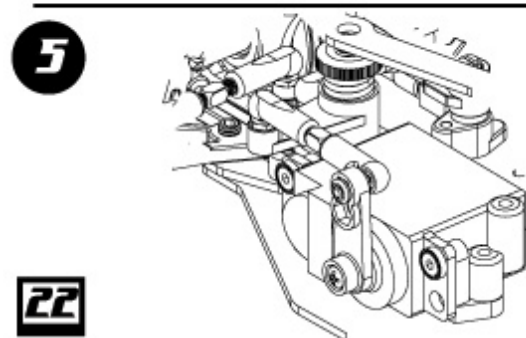
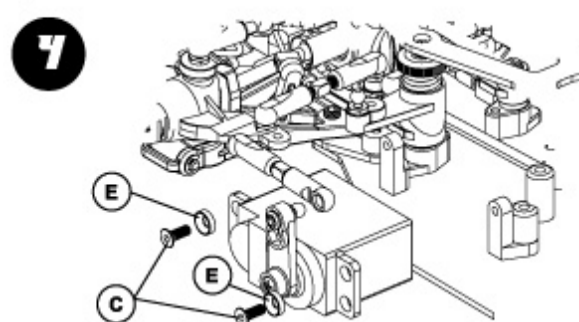
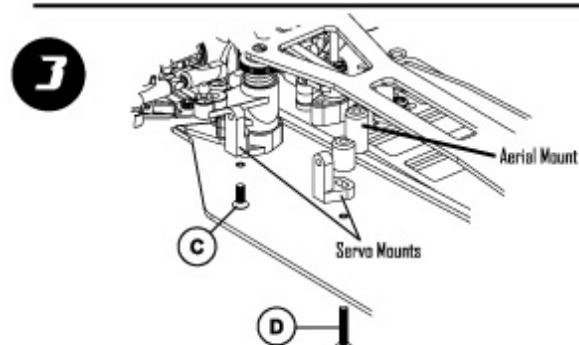
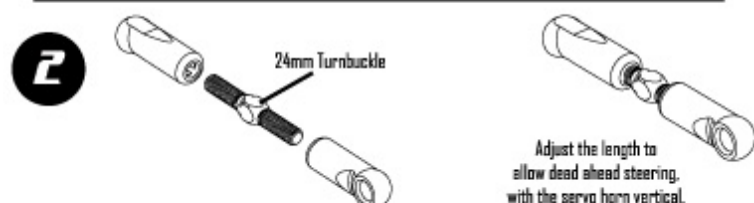
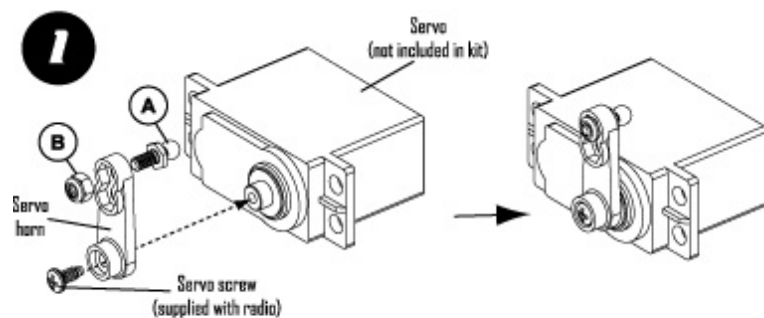
A  M3 x 12 Allen Csk x 4

B  M3 x 10 Allen Csk x 2

C  M4 x 6 Grub Screw x 2

Final Assembly





Final Assembly

Schumacher

MIPAC

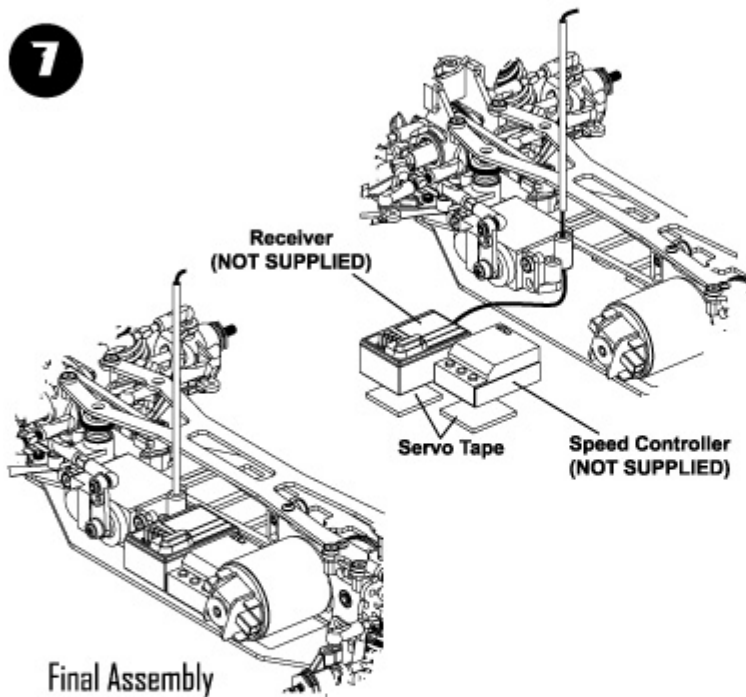
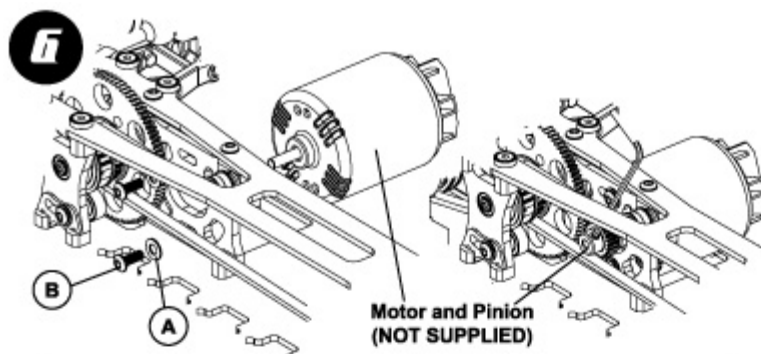
RADIO INSTALLATION

Parts required:

- A** Ball Stud Short M3 x 1
- B** M3 Nyloc Nut x 1
- C** M3 x 10 Csk Allen x 3
- D** M3 x 12 Csk Allen x 1
- E** M3 Csk Washer x 2

TRACK TIP

Make sure your servo is sent to neutral BEFORE putting on the servo horn.



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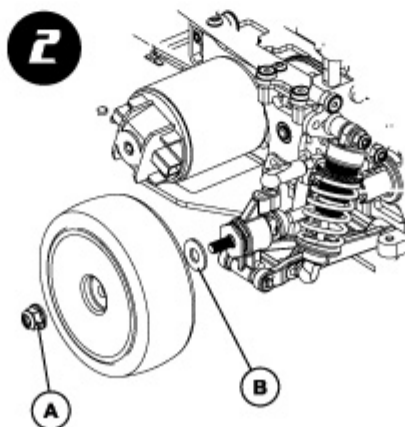
RADIO INSTALLATION Cont.



M3 Steel Washer x 2



M3 x 8 Button Head x 2



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WHEEL ASSEMBLY

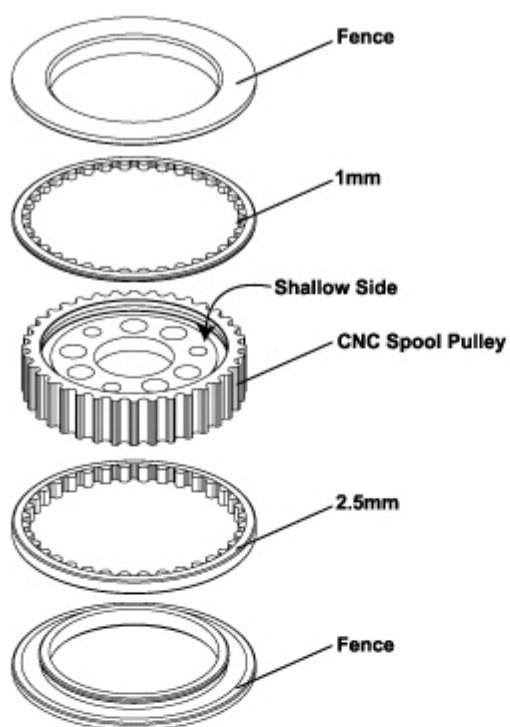


M4 Nyloc Nut x 4



M4 Wheel Spacer x 4

1



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Complete Complete Specifications

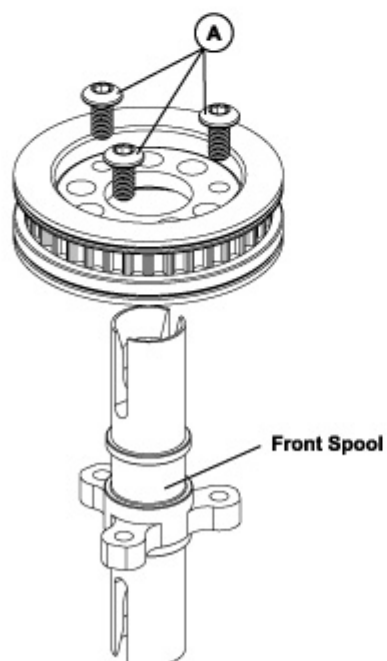
FRONT SPOOL SERVICE

A



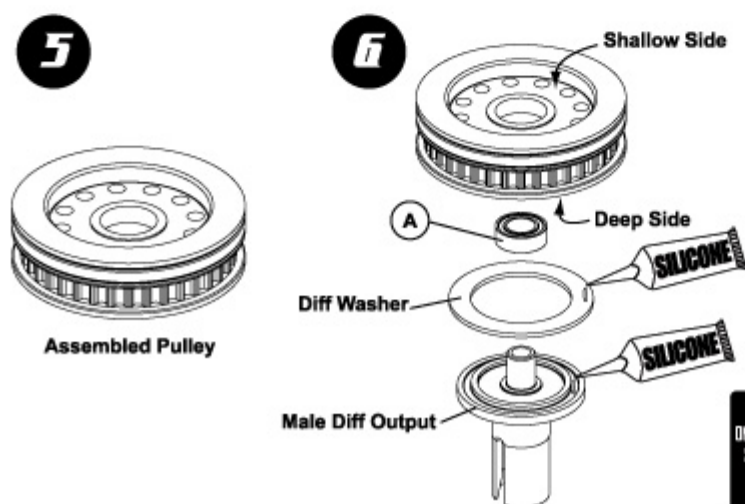
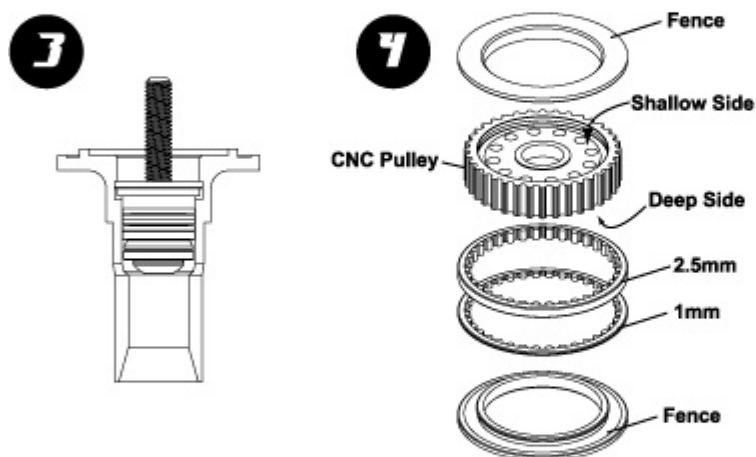
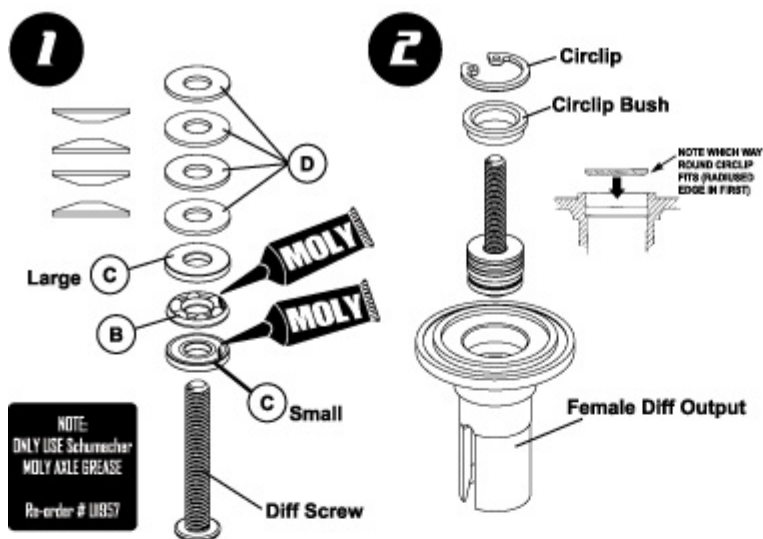
M3 x 6 Button Head x 3

2



Final Assembly





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REAR DIFFERENTIAL SERVICE

A 5 x 9 x 3 Ball Race x 1

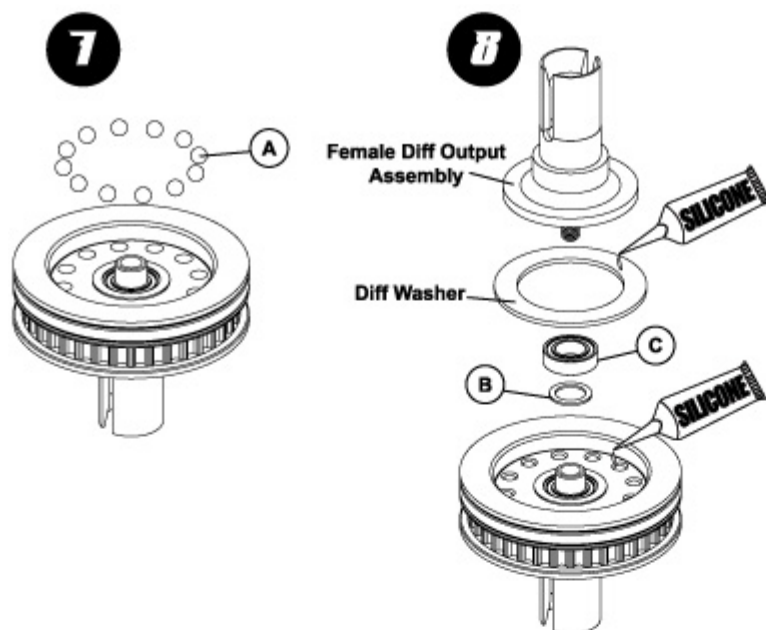
B Thrust Race Cage x 1

C Thrust Washer x 2 (1 x small, 1 x large)

D Diff Disc Spring x 4

NOTE:
ONLY USE Schumacher
SILICONE DIFF LUBE
Re-order # UBS31





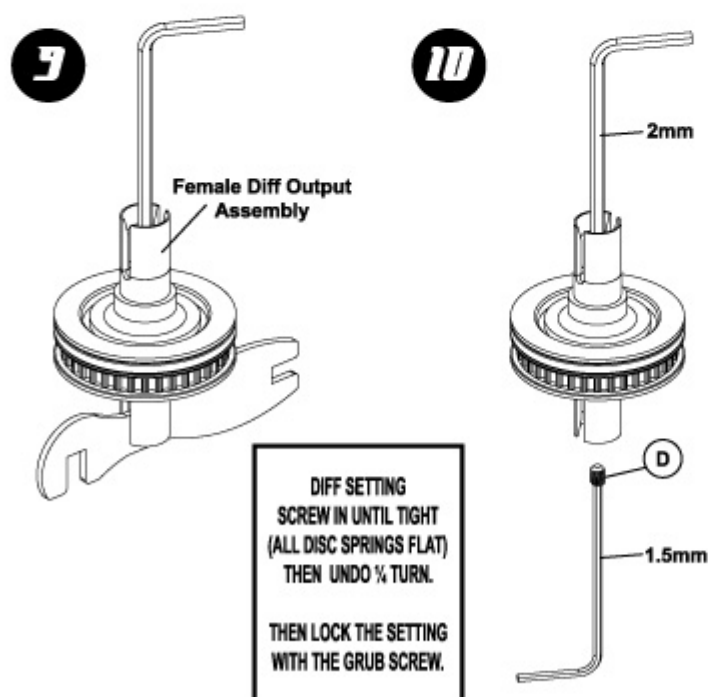
Schumacher

Mi-EC

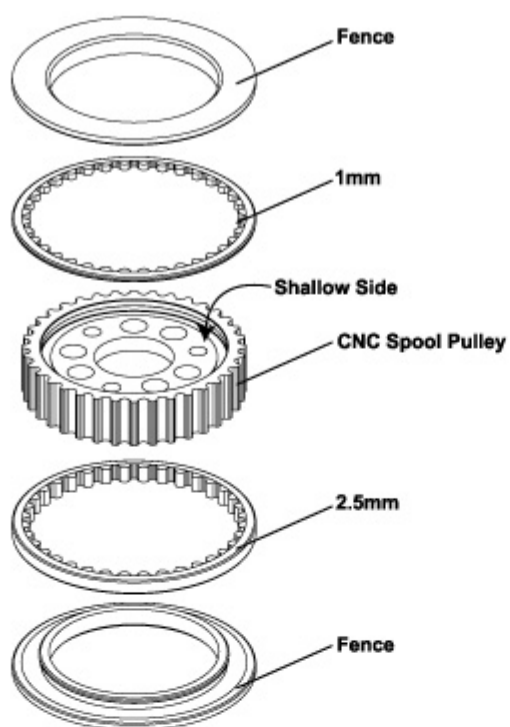
REAR DIFFERENTIAL SERVICE Cont.

- A** 2.5mm Dia Diff Ball x 12
- B** Thin Shim x 1
- C** 5 x 9 x 2.5 Open Ball Race x 1
- D** M3 x 4 Grub Screw x 1

TRACK TIP
Using the dust cap will help give the maximum life to your diff.... USE IT!



1



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miPEC
European Champion Specialties

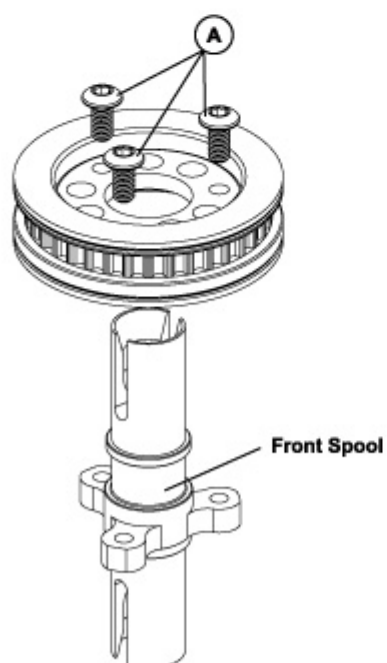
FRONT SPOOL SERVICE

A



M3 x 6 Button Head x 3

2



Final Assembly

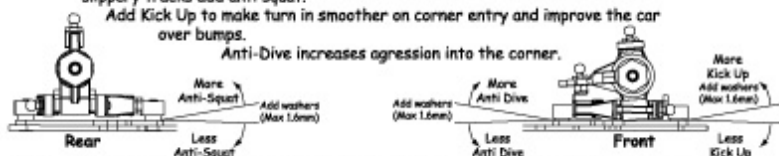


ANTI SQUAT & SUSPENSION DROOP / KICK UP & ANTI-DIVE

The car has 0° anti squat as standard. More anti squat will give more on power traction, however too much will make the car unstable when turning into high speed corners. On slippery tracks add anti squat.

Add Kick Up to make turn in smoother on corner entry and improve the car over bumps.

Anti-Dive increases aggression into the corner.



The suspension droop can be adjusted using the grub screw in the lower wishbones. Less front droop improves power on steering. More rear droop increases rear grip, but can make the car unstable under braking.

WHEELBASE (set on FRONT & REAR wishbones)

The length of the wheelbase is set by fitting the spacers, in different positions.

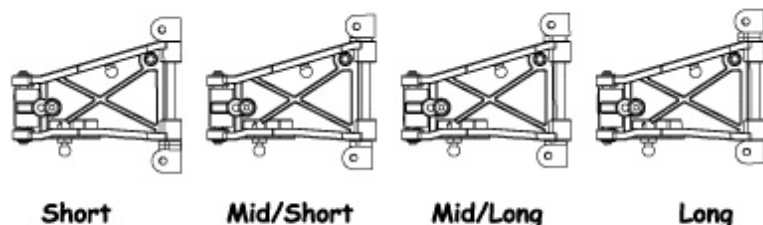
In front of the wishbone = Long (rear wishbones) Short (front wishbones). Either side of the wishbone = Medium. Behind the wishbone = Short (rear wishbones) Long (front wishbones).

NOTE: The diagrams show the REAR wishbones.

Use spacers to maintain the wheelbase length after adjusting the Castor or Toe-In/Out.

In general a longer wheelbase will offer more stability.

Finer adjustment can be gained using the "Kwik Klip" option parts U2251



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MEC

TRACK SETTINGS AND GEAR RATIO CHARTS

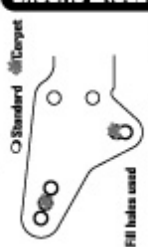
Maximum Tooth Sum = 125
Minimum Tooth Sum = 105
1.8 : 1 INTERNAL RATIO

	88 tooth	86 tooth	83 tooth
16	10.01		
17	9.42		
18	8.90		
19	8.43	8.15	
20	8.01	7.74	
21	7.63	7.37	
22	7.28	7.04	6.79
23	6.97	6.73	6.50
24	6.68	6.45	6.23
25	6.41	6.19	5.98
26	6.16	5.95	5.75
27	5.93	5.73	5.53
28	5.72	5.53	5.34
29	5.52	5.34	5.15
30	5.34	5.16	4.98
31	5.17	4.99	4.82
32	5.01	4.84	4.67
33	4.85	4.69	4.53
34	4.71	4.55	4.39
35	4.58	4.42	4.27

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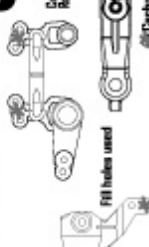
Driver: Paul Wynn
Date: N/A
Meeting: Carpet - Foam
Best Time: N/A

FRONT SHOCKS



Ride Height: 4.0 in
Anti-Roll Bar: Yellow 1.7mm
Center: 0.2°
Kick Up: 0.2°
Toe-In/Out: 0.0 degrees
Roll Center: 1.6 in
Comber: 1.5 degrees
Washers: 0.0mm
Notes:

REAR SHOCKS



Ride Height: 4.2 in
Anti-Roll Bar: No
Center: 0.0°
Kick Up: 0.0°
Toe-In/Out: 0.0 degrees
Roll Center: 1.6 in
Comber: 1.5 degrees
Washers: 0.0mm
Notes:

FRONT SHOCKS



Ride Height: 4.2 in
Anti-Roll Bar: No
Center: 0.0°
Kick Up: 0.0°
Toe-In/Out: 0.0 degrees
Roll Center: 1.6 in
Comber: 1.5 degrees
Washers: 0.0mm
Notes:

REAR SHOCKS



Ride Height: 4.2 in
Anti-Roll Bar: No
Center: 0.0°
Kick Up: 0.0°
Toe-In/Out: 0.0 degrees
Roll Center: 1.6 in
Comber: 1.5 degrees
Washers: 0.0mm
Notes:

TRACK CONDITIONS

Track: 27 x 1 stock
Bank: Putnam
Spring: Medium
Tire: 24 inch
Rear Steer: 89 inch

MOTOR & GEARING

Motor: Parma Alfa
Gearbox: 18/24
Pinion: 24
Gear: 89

DRIVERS NOTES

Used 60% Dual Rate
Additive: Front Rear

OTHER SETTINGS

Front Tyre: Java Pink 57mm
Rear Tyre: Java Pink 57mm
Front Inerts: 1.0g
Rear Inerts: 1.0g
Wheel: Java
Tire Width: 1.0g