

Instruction Manual





71-73 Tenter Road Moulton Park Northampton NN3 6AX U.K

Additional Items Required

Transmitter and Receiver (including batteries for tx)

CR151 CODE 2.4G 2 Stick 3Ch Tx+Rx CR152

CODE 2.4G 2 Stick 3Ch Receiver ONLY







Electronic Speed Control



Li-Po Battery or 4 Cell Nimh



Motor Brushed or Brushless



Battery Charger

CR161 UAC50 Charger 12v/110-240v 6A



Tools



5.5 A/F Combination Wrench





U2795 M3 Nut Drive









Schumacher Racing stocks and distributes the following manufacturers products and full product listings are available on our website at www.racing-cars.com

implicity by design

PLEASE NOTE THAT SOME OF THE PRODUCT RANGES BELOW ARE ONLY AVAILABLE IN THE UNITED KINGDOM











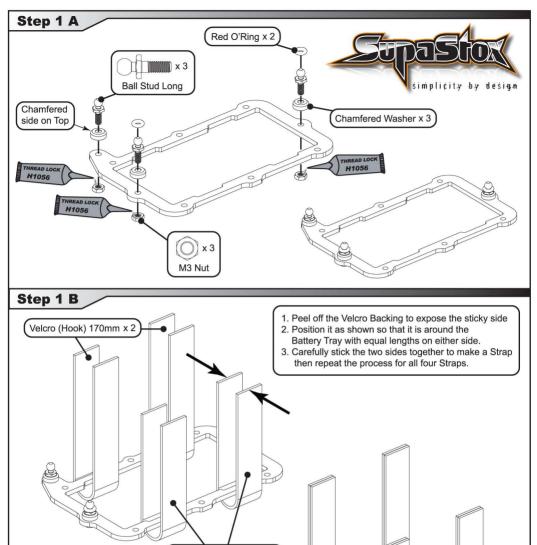




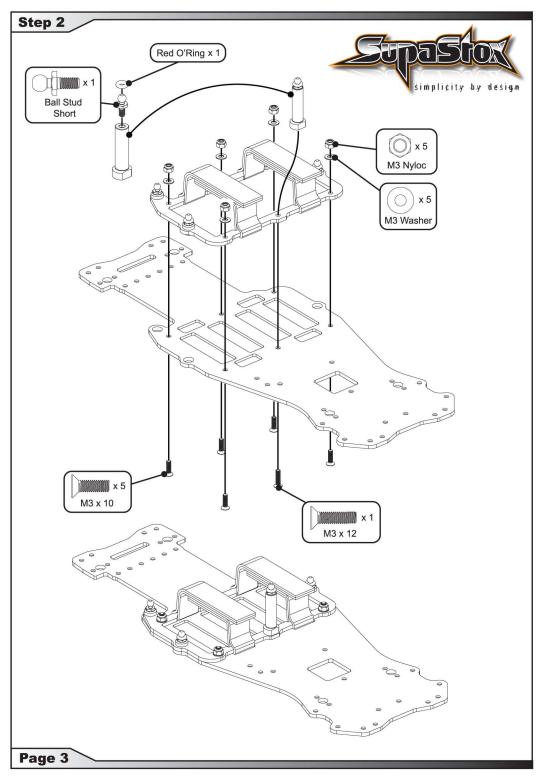


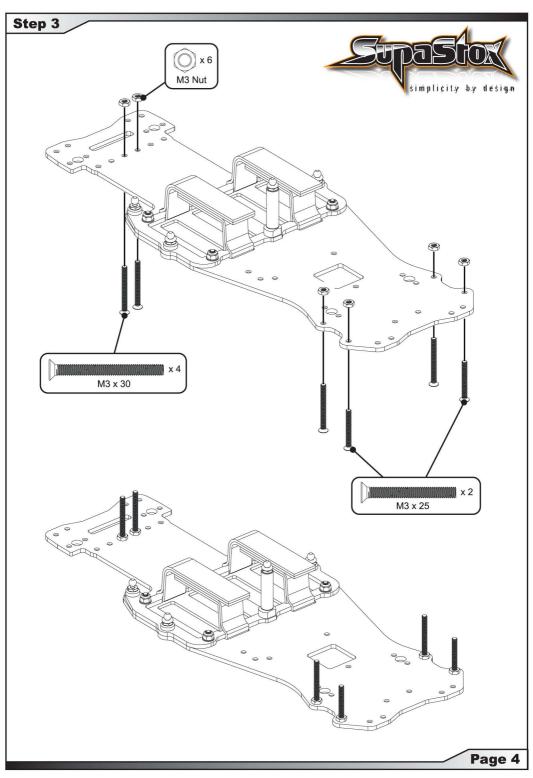
IMPORTANT SAFETY NOTES

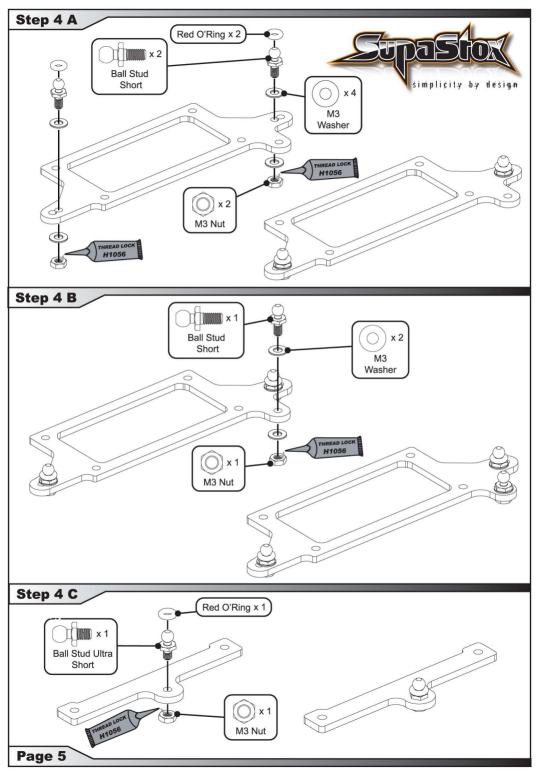
- This product is not suitable for children under the age of 14, without the direct supervision of an adult.
- Select an area for assembly that is away from the reach of small children. The parts in this kit are small and can be swallowed by children causing choking and possible internal injuries.
- Exercise care when using hand tools and sharp instruments during assembly.
- Carefully read all manufacturers warnings and cautions for any additional parts used in the construction.
- In line with our policy of continuous development the exact details of the kit may vary.

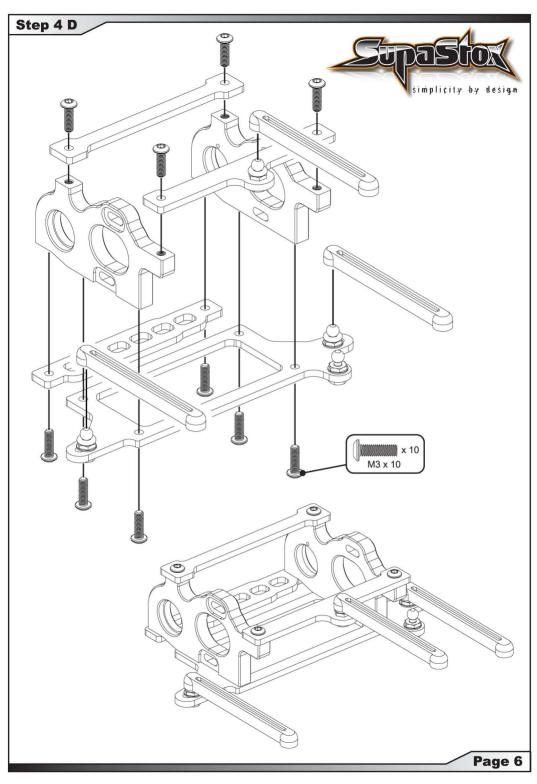


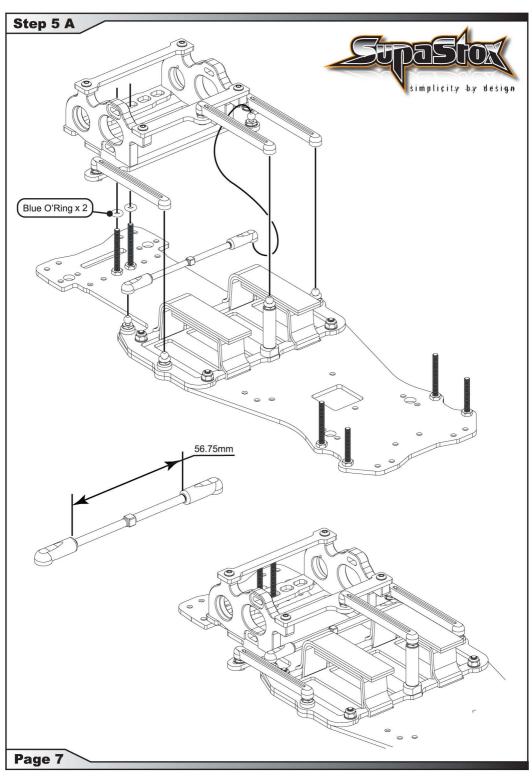
Velcro (Loop) 140mm x 2

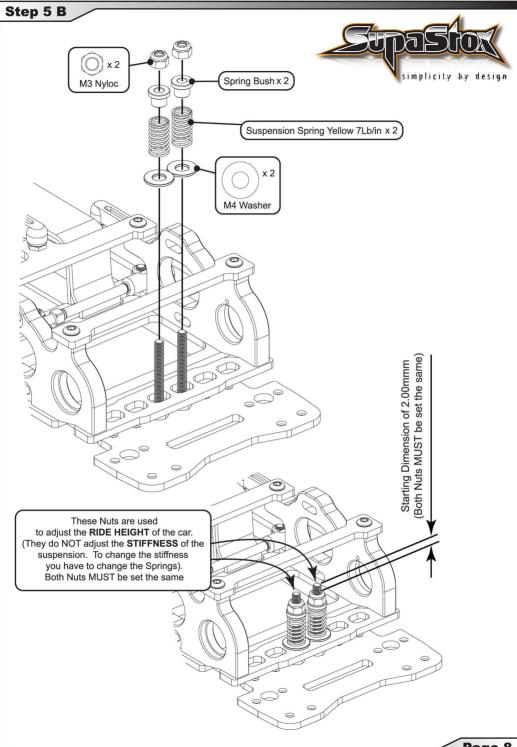


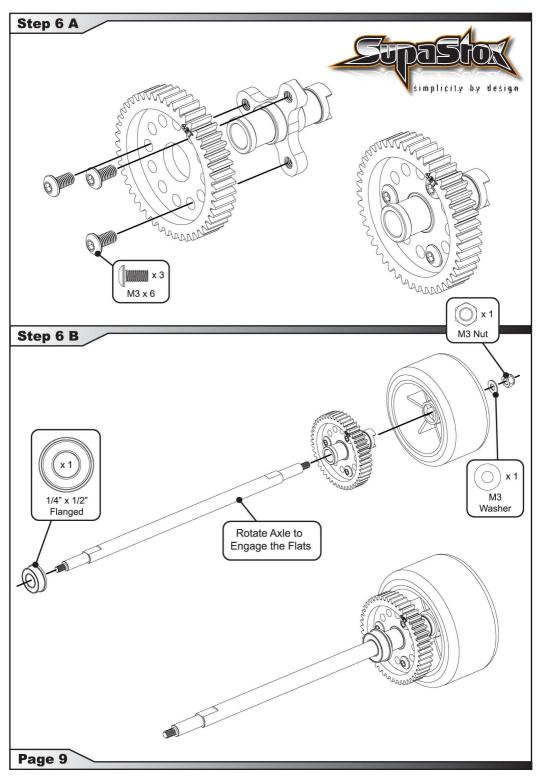


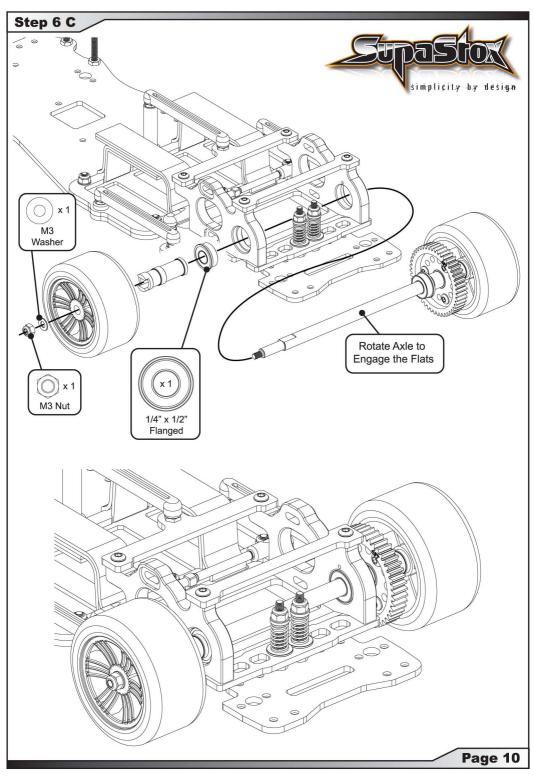


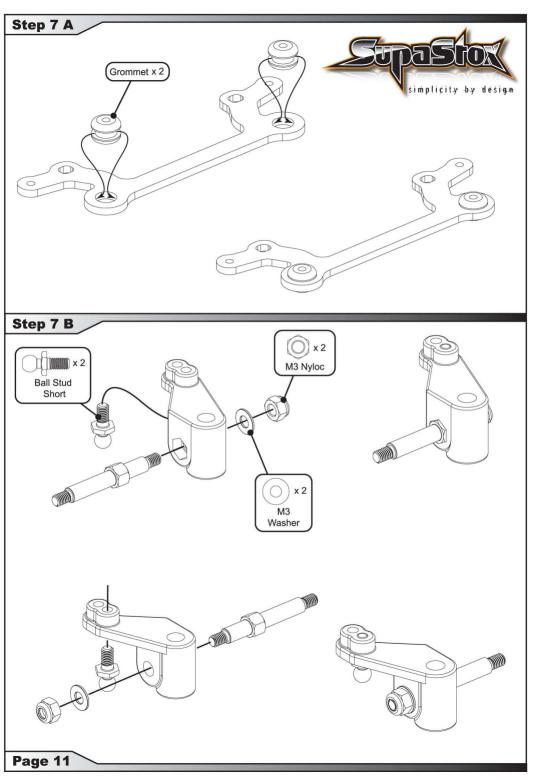


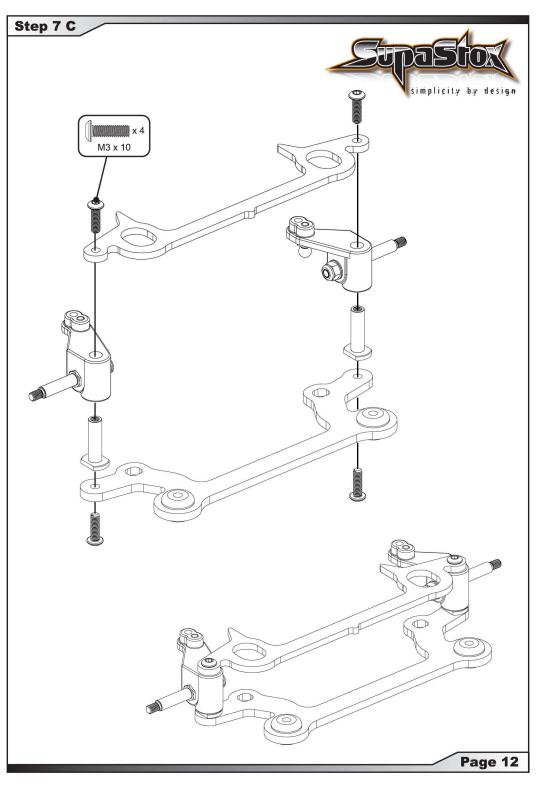


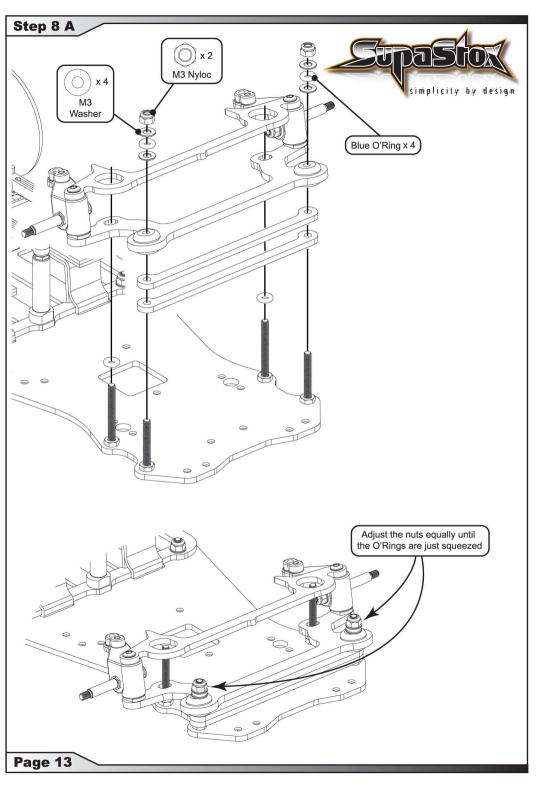


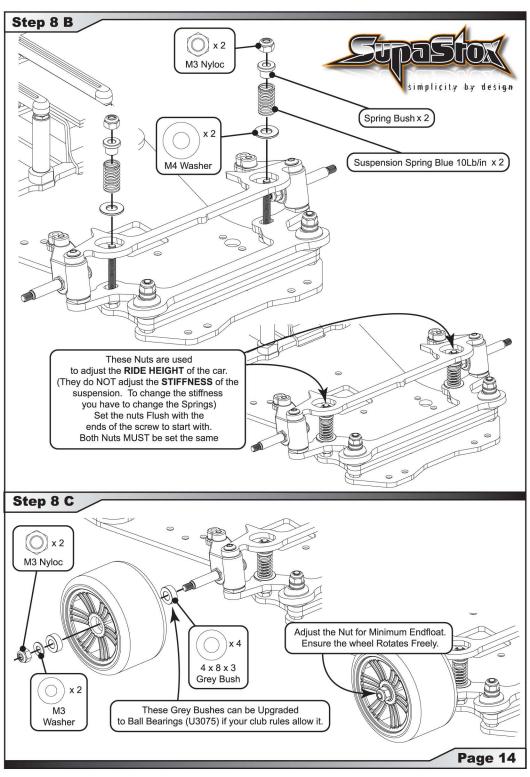


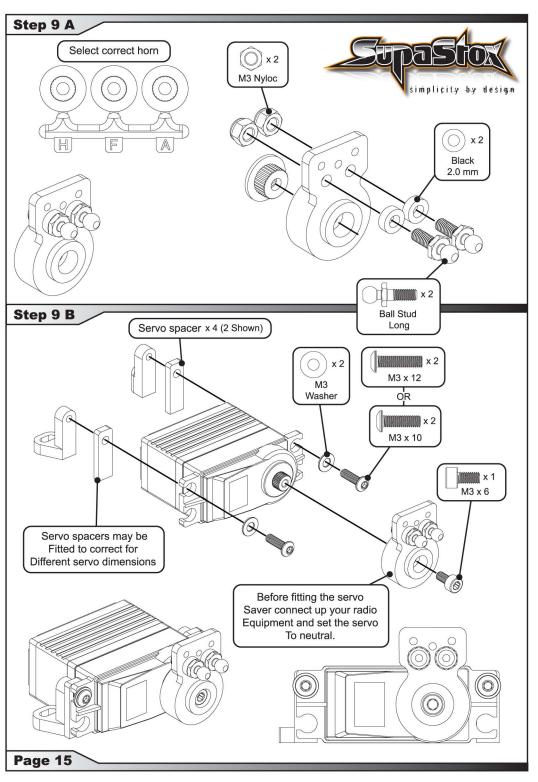


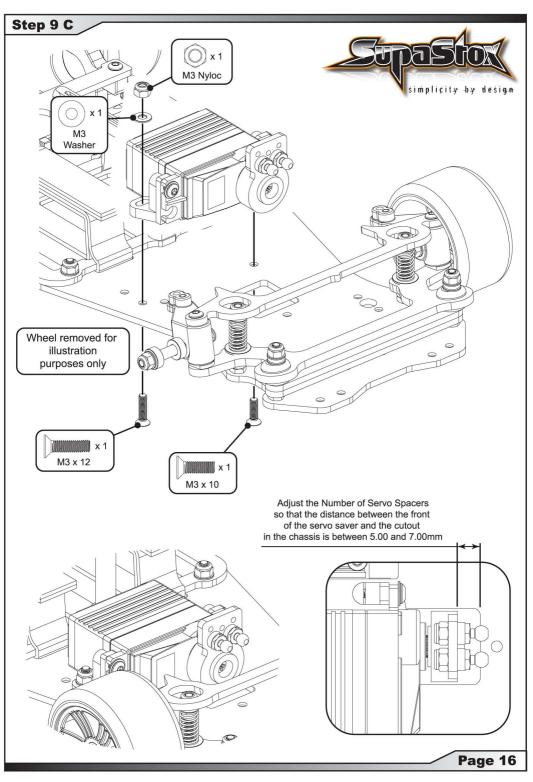


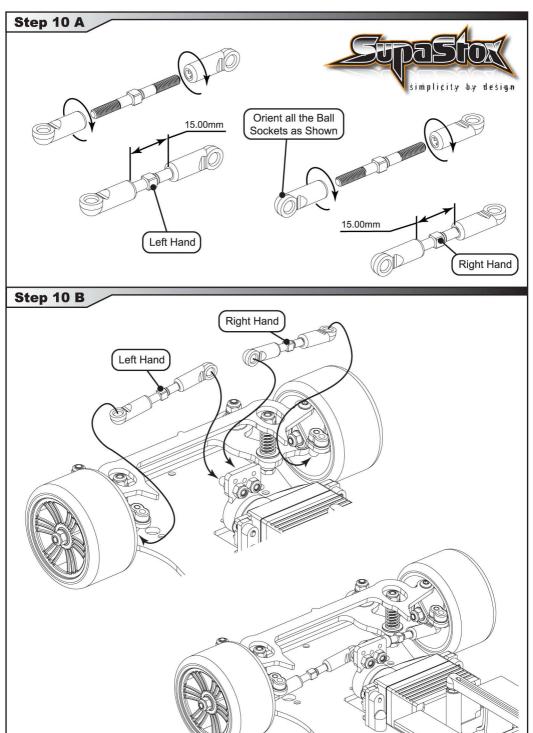




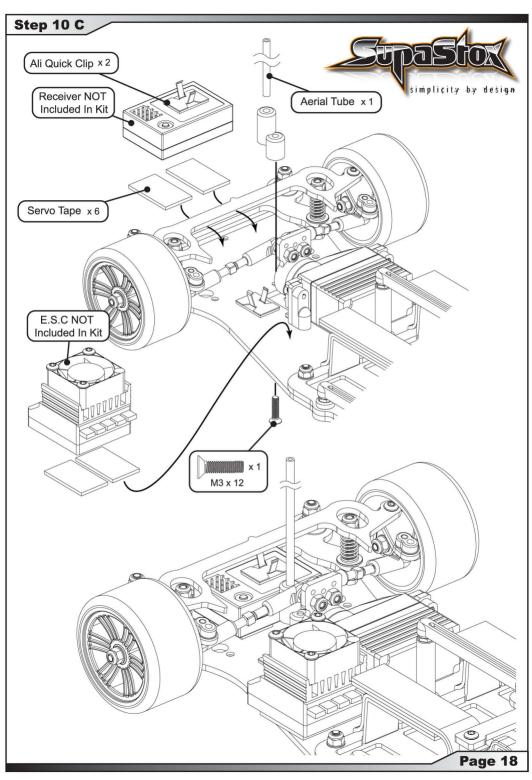








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Spares

Kits

K131 - SupaStox Kit, 4 cell, 1s & Shorty K132 - SupaStox Kit, 6 cell, 2s & Saddle

Suspension Cont....

Speed Secrets

Spring 10lb/in Blue (pr) - SupaStox

Spring 19lb/in Red (pr) - SupaStox

Spring Tuning Set (6 pairs)

CORE RC Battery Tape - Black

CORE RC Battery Tape - Blue

CORE RC - Battery Tape - Purple

Small Body Clip 1/10 - Silver (8)

Small Body Clip 1/10 - Gold (8)

CORE RC - Silver X-Weights 16pcs

CORE RC - Black X-Weights 16pcs

Small Body Clip 1/10 - Fluorescent Yellow (8)

Small Body Clip 1/10 - Fluorescent Green (8)

Small Body Clip 1/10 - Fluorescent Red (8)

Small Body Clip 1/10 - Metallic Green (8)

Small Body Clip 1/10 - Metallic Red (8)

Small Body Clip 1/10 - Metallic Blue (8)

Spring 26lb/in Black (pr) - SupaStox

Suspension O'ring Tuning Set - SupaStox

Moulded Links 57.2mm (pk3) - SupaStox

Suspension Grommet (pk4) - SupaStox

Spring 14lb/in Green (pr) - SupaStox

U3967

U3968

U3969

U3970

U3986

U3977

U3979

U4061

CR005

CR006

CR037

CR043

CR058

CR061

CR062

CR063

CR064

CR065

CR066

CR067

CR068

Decals and Manual Decal sheet - Schumacher (pk3) U3478

U3971 Manual - SupaStox

U4051 Decal sheet - SupaStox (pk2)

Bearings

U3075 Ball Bearing 4x8x3mm Red Seal (pr)

U3939 Ball Bearing 1/4" X 1/2" Flanged Red Seal (pr)

U3941 Wheel Bush 4X8X3 - SupaStox

Body Mounting

U3943 Body Posts and Blocks - SupaStox

U3951 Rear Body Mount Block - SupaStox

Chassis parts

111042 Aerial Mount - Universal

U119 Aerial Tube - Pack 4

U2244 Servo Mounts Chassis parts

U3942 Foam Bumper - SupaStox

U3978

Velcro Battery Strap Set - SupaStox

U3987 Moulded Battery Straps (6 Cell) - SupaStox

U3988 Bumper Clamp and Spacers - SupaStox

S1 Parts

U3957 Chassis 4 Cell/1s/shorty - SupaStox

U3958 Battery Nest (4 Cell) -SupaStox

U3959 Rear Body Mount - SupaStox

U3960 Front Beam - SupaStox

CR069 Small Body Clip 1/10 - Metallic Purple (8) U3961 Pod Hanger and Straps - SupaStox CR159 Core RC - Battery Tape - Orange

U3962 Servo Spacer - SupaStox U2166 Alloy Blocks and Flex Body Post - Horizontal

U3963 Rake Spacers 2.5mm - SupaStox U2187 M3 Nyloc Nut - Purple Alloy (pk8)

U3964 Pod Base - SupaStox U3131 Alloy Spacers M3x7mm 0.5;1;2mm (pk18) U3980 Camber Strap 1 Deg - SupaStox U3571 Alloy Servo Mounts - Mi4LP

U3981 Chassis 6 Cell/ 2s saddle - SupaStox U3972 48T 32DP Spur Gear - SupaStox

U3982 Battery Nest (6 Cell) - SupaStox U3973 50T 32DP Spur Gear - SupaStox

U4056 U3974 52T 32DP Spur Gear - SupaStox Battery Nest (Saddle) - SupaStox

U3975 Wishbone Posts - SupaStox (pr) Transmission Motor Spacer 2.5mm - SupaStox

U3976 U3945 46T 32DP Spur Gear - SupaStox Camber Strap 2 Deg - SupaStox U3983

U3946 Rear Axle - SupaStox U3984 Front Wishbones - SupaStox U3947 LH Drive Dog - SupaStox U3985 Turnbuckle Set - SupaStox

U3948 RH Drive Dog - SupaStox U4057 Spur Gear 48DP - 70T - SupaStox U3949 LH Trans Housing - SupaStox U4058 Spur Gear 48DP - 74T - SupaStox

U3950 RH Trans Housing - SupaStox U4059 Spur Gear 48DP - 78T - SupaStox

Steering U3940 Kimbrough Servo Saver (Medium)

U1544 SPEED PACK - Short M3: Cap Hd U3944 Front Hub Carriers (pr) - SupaStox U1547 SPEED PACK - M3 Nuts U3953 Steering Pivot - SupaStox U1548 SPEED PACK - M3 Washers

U3954 Front Axle - SupaStox U1550 SPEED PACK - Socket Wrenches (pk3)

U1552 SPEED PACK - R Clips Suspension U1606 SPEED PACK - Servo Tape

U2989 Ball Grippa Sockets - (pk 8) U2128 SPEED PACK - Grub-Set Screws M3 M4

U3054 Bush; shock mount - Rascal (pr) U2356

SPEED PACK - M3x16-30 Csk Screws (pk12) U3210 Turnbuckle Adjuster; Gold - 35mm (pr) U2760 SPEED PACK - M3 Button Hd; 4 to 20

Speed Pack

U3495 Ball Studs; Ultra Short - pk 4 U2856 SPEED PACK - Sticky Cable Clips (pk10)

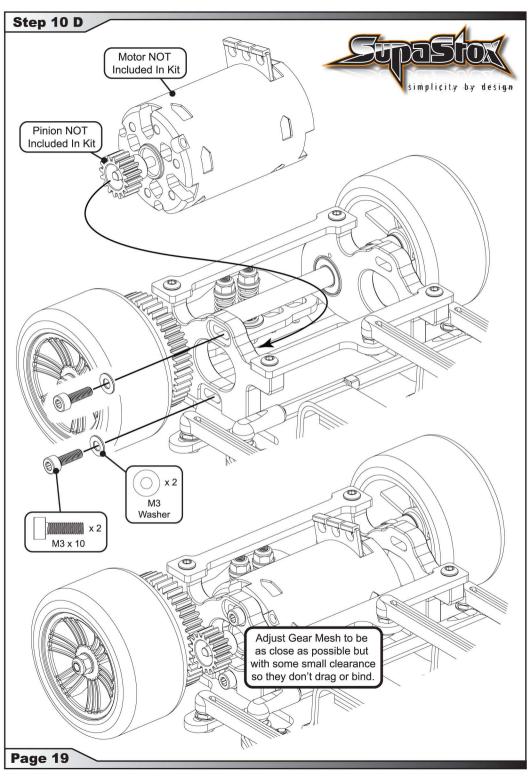
U3496 Ball Studs; Short - pk 4 U2988 M3 Csk Washers - Purple Alloy (pk10) U3497 Ball Studs; Long - pk 4 SPEED PACK - M3x6 Csk Allen Hi-T U3021

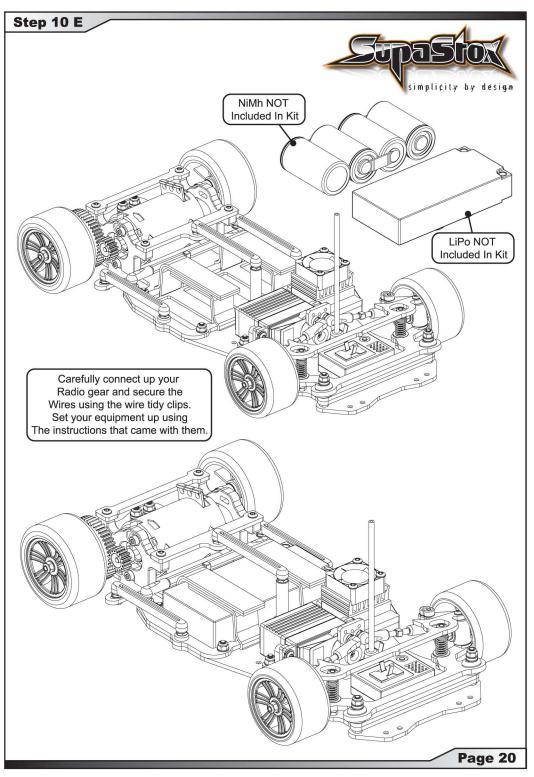
U3952 Link Post - SupaStox U3022 SPEED PACK - M3x8 Csk Allen Hi-T U3955 Rear Link Assembly - SupaStox SPEED PACK - M3x10 Csk Allen Hi-T U3023 U3956 Alloy Spacer 3mm - SupaStox

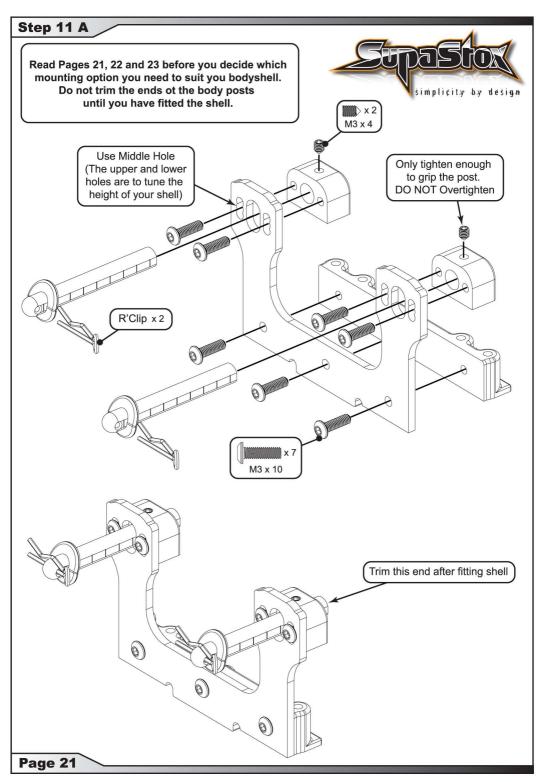
U3024 SPEED PACK - M3x12 Csk Allen Hi-T U3965 Spring 5lb/in White (pr) -SupaStox U3938 SPEED PACK -Black nylon washer 2mm (pk 10)

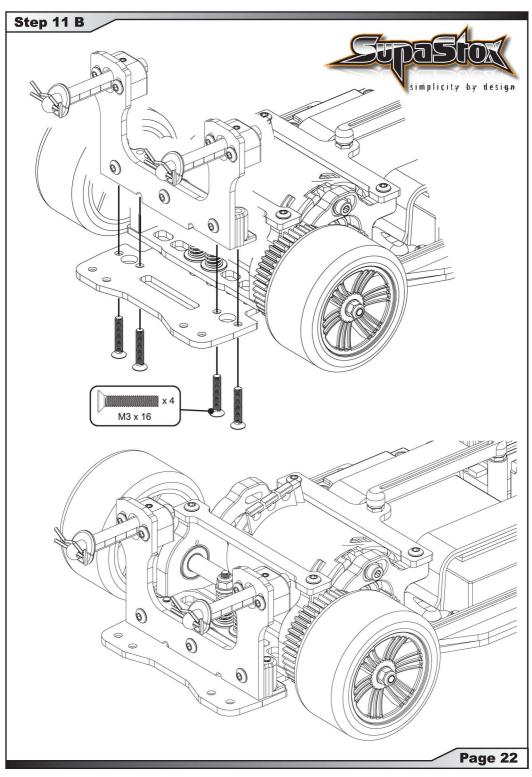
U3966 Spring 7lb/in Yellow (pr) - SupaStox 113989 SPEED PACK - M4 Washers Spares

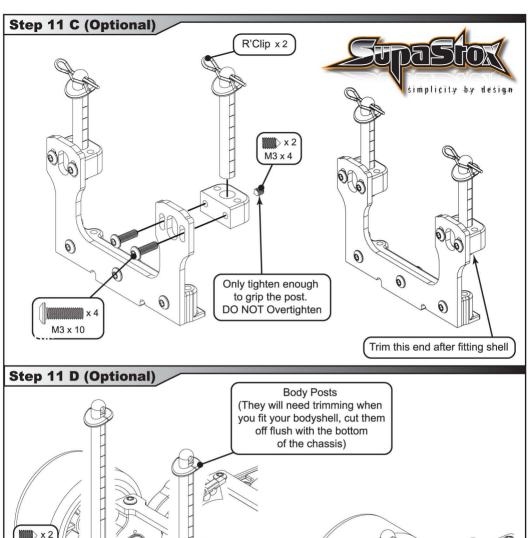
Batteries	(
CR007 CORE RC Silicone Wire 12g - Red/Black 2x50cm		
CR008 CORE RC RED Connector with 2x4mm Tubes		
CR009 CORE RC RED Connector with 2x4mm Males		simiplicity by design
CR050 CORE RC Silicone Wire 12g - Red 1 Metre	T 1	
CR051 CORE RC Silicone Wire 12g - Black 1 Metre	Tools	0005.00
CR052 CORE RC Silicone Wire 12g - Blue 1 Metre	CR044	CORE RC - Curved Body Scissors
CR115 CORE RC Silicone Wire 12g - Red/Black/Blue 3x50cm	CR045	CORE RC - Straight Body Scissors
GM99009 Lipo-saddle V-Maxx 60C 2x1S3P/5600 3, 7V G4 GM99016 Lipo Battery V-Maxx 70C 1S2P/6400 3.7v G	CR102 CR103	Magnetic Parts Tray - Purple Magnetic Parts Tray - Black
MR-SB MR33 Lipo Bag	CR148	CORE RC - Polybutler Pit Box; Black
NR99939 Lipo 6700 X-Treme Race 1S H/case-50C/100C-3.7V	H1026	Ride Height Gauge; Alloy; 0-10mm
NR99940 Lipo 6300 Stk Spec X-Treme 1S H/case-55C/110C-3.7V	H1032	Alloy Camber Gauge - 1/10th
NR99941 Lipo 5600 X-Treme Race S/Pack H/case-55C/110C-7.4V	H1056	Loctite 243 Thread Lock 3ml
NR99942 Lipo 4400 X-Treme Race SubC H/case-55C/110C-7.4V	U2789	Schumacher Hex Driver - 1.5mm
NEW NAME WILL	U2790	Schumacher Hex Driver - 2.0mm
Brushless Motors	U2791	Schumacher Hex Driver - 2.5mm
GM97413 GM Race BL Motor 13.5T	U2795	Schumacher M3 Nut Driver
GM97417 GM Race BL Motor 17.5T	U2818	Schumacher Body Reamer
GM97421 GM Race BL Motor 21.5T		
NR91841 Nosram PURE Evo Stock 13.5T	Pinions	
SP000016 Ultra Sportsman Version 3.0 Sensor Motor 13.5R	U4008	Pinion; Hard Alloy 32dp - 8T
SP000017 Ultra Sportsman Version 3.0 Sensor Motor 17.5R	U4009	Pinion; Hard Alloy 32dp - 9T
SP000018 Ultra Sportsman Version 3.0 Sensor Motor 21.5R	U4010	Pinion; Hard Alloy 32dp - 10T
SP000019 Ultra Sportsman Version 3.0 Sensor Motor 25.5R	U4011 U4012	Pinion; Hard Alloy 32dp - 11T Pinion; Hard Alloy 32dp - 12T
SP000038 1/10 Competition MMM Series 13.5R BL Motor SP000039 1/10 Competition MMM Series 17.5R BL Motor	U4013	Pinion; Hard Alloy 32dp - 121
SP000040 1/10 Competition MMM Series 21.5R BL Motor	U4014	Pinion; Hard Alloy 32dp - 14T
SP138135V3 Speed Passion V3.0 Comp BL Motor; 13.5T	U4015	Pinion; Hard Alloy 32dp - 15T
SP138175V3 Speed Passion V3.0 Comp BL Motor; 17.5T	U4016	Pinion; Hard Alloy 32dp - 16T
SP138215V3 Speed Passion V3.0 Comp BL Motor; 21.5R	U4017	Pinion; Hard Alloy 32dp - 17T
District St. S. Table South Security Control of St. Control of Control of St. Control of	U4018	Pinion; Hard Alloy 32dp - 18T
Brushless SpeedControls	U4019	Pinion; Hard Alloy 32dp - 19T
NR90905 Pearl Evolution V2 Brushless ESC	U4020	Pinion; Hard Alloy 32dp - 20T
NR90955 Pearl Evolution ISTC V2 Brushless ESC	U4021	Pinion; Hard Alloy 32dp - 21T
SPEXT98802EXB GT V2.1 EX Brushless ESC - Blue	U4022	Pinion; Hard Alloy 32dp - 22T
SPEXT98802EXC GT V2.1 EX Brushless ESC - Carbon	U4023	Pinion; Hard Alloy 32dp - 23T
SPEXT98802EXS GT V2.1 EX Brushless ESC - Silver	U4024	Pinion; Hard Alloy 32dp - 24T
SPEXT98802LPB Speed Passion LPF V2.0 ESC - Blue SPEXT98802LPF Speed Passion LPF V2.0 ESC - Carbon Look		
SPEXT98802LPS Speed Passion LPF V2.0 ESC - Carbon Look SPEXT98802LPS Speed Passion LPF V2.0 ESC - Silver	Pinions	
SPEXT30002EF3 Speed Fassion EFT V2.0 ESC - Slivel	U3414	Pinion; Hard Alloy 48dp - 14T
Brushed SpeedControls	U3415	Pinion; Hard Alloy 48dp - 15T
G974 Matrix 11T - Speedo; Fwd/Brk - 1 Touch	U3416	Pinion; Hard Alloy 48dp - 16T
G979 Matrix 27R - Rev Speedo - One Touch	U3417 U3418	Pinion; Hard Alloy 48dp - 17T Pinion; Hard Alloy 48dp - 18T
NR93010 Hawk Reverse	U3419	Pinion; Hard Alloy 48dp - 19T
NR93471 International Power	U3420	Pinion; Hard Alloy 48dp - 20T
B. I.I. A.	U3421	Pinion; Hard Alloy 48dp - 21T
Brushless Accessories	U3422	Pinion; Hard Alloy 48dp - 22T
CR133 Core Sensor Lead; 80mm	U3423	Pinion; Hard Alloy 48dp - 23T
CR134 Core Sensor Lead; 180mm	U3424	Pinion; Hard Alloy 48dp - 24T
Chargers and Dischargers	U3425	Pinion; Hard Alloy 48dp - 25T
CR031 UDC Charger Connector Set	U3426	Pinion; Hard Alloy 48dp - 26T
CR161 UAC50 Charger 12v/110-240v 6A	U3427	Pinion; Hard Alloy 48dp - 27T
	U3428	Pinion; Hard Alloy 48dp - 28T
Electronics	U3429	Pinion; Hard Alloy 48dp - 29T
CR116 CORE Servo; Low Profile 8.4Kg Ti Gears 2xBB 0.11s	U3430	Pinion; Hard Alloy 48dp - 30T
CR151 CODE 2.4G FHSS LCD 2 Stick TxRx	U3431	Pinion; Hard Alloy 48dp - 31T
CR152 CODE 2.4G FHSS LCD - Rx Only	U3432	Pinion; Hard Alloy 48dp - 32T
CR153 CODE 2.4G FHSS Sport 2 Stick TxRx	U3433 U3434	Pinion; Hard Alloy 48dp - 33T Pinion; Hard Alloy 48dp - 34T
CR154 CODE 2.4G FHSS Sport - Rx Only	U3434	Pinion; Hard Alloy 48dp - 35T
CR156 Servo 3.5kg 0.17 sec CR162 CORE RC Sensor Checking Widget	U3436	Pinion; Hard Alloy 48dp - 36T
CR162 CORE RC Sensor Checking Widget	00100	riara /

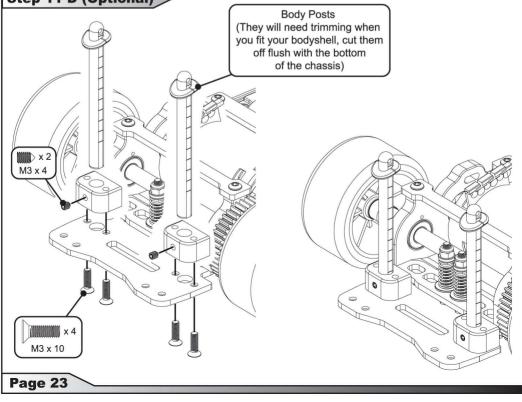


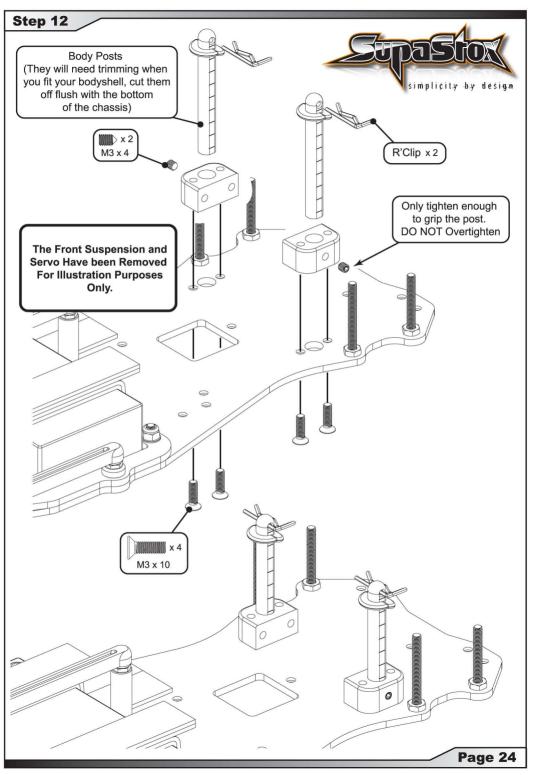


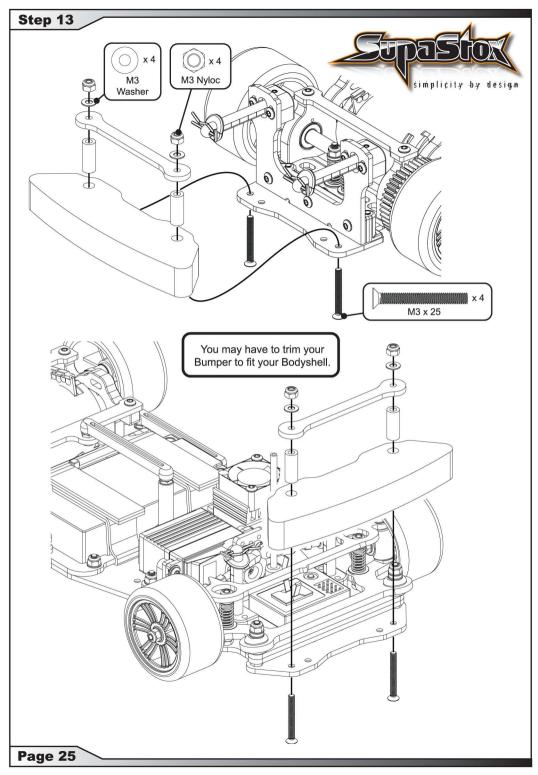












Car Settings

We recommend you start by building your supastox to the specification show in this instruction manual. Then there are many adjustments you can make to tune your car to your track and driving style.



Tyres

The single most important factor is to get the tyres right. The contact foam tyres are designed for use on

carpet tracks.

		Shore	hardness			
35	37	40	42	45	48	50
•						_
0-4				L-		

Softer = more grip harder = less grip

Use softer front tyres if you want more steering, and harder front tyres if you want less steering. In high traction conditions sometimes you can have too much overall grip,
Using harder tyres all round should make you faster though the

Corners with less traction rolling.

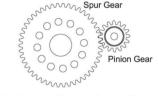
RACERS TIP - If you have too much steering then add a few spots of superglue (*C4450 or MR-Superglue*) to the outside edge of the front tyre to reduce the front tyre grip. (make sure it is fully dried before returning to the track)



Gear Ratio

Divide the number of teeth on the spur by the number of teeth on the pinion to calculate the gear ratio. (e.g. 46/16 = 2.87)

A bigger pinion (lower numerical gear ratio) will give more top speed, and less acceleration, be careful not to 'overgear' the car with too big a pinion, because this can cause overheating and damage the speed controller and motor. Always start with a small pinion first.



The rear tyre diamter also effects the gear ratio.

A more accurate method of gear ratio measurement is 'mm/rev', because this takes into consideration the tyre diameter. The example below show how to do this.

For 50mm tyres.

First work out the gear ratio from the spur gear and pinion (e.G 46/16 = 2.87). Then work out the following equation.

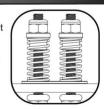
 $\frac{50 \text{ (tyre dia) x } \pi \text{ (3.142)}}{2.87 \text{ (gear ratio)}} = 54.60 \text{mm/rev}$

Ride Height

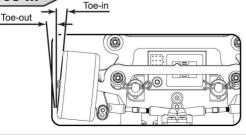
As the tyres wear and they become smaller the ride height will reduce. You adjust the ride height with the nut above the spring.

Normally set the car to about 4mm (depending on the smoothness of the track).

A higher ride height will allow the car to roll more and increase traction but may cause the car to traction roll. If the ride height is too low the chassis will rub on the carpet causing drag and reduced traction on cornering.



Front Toe In



Adjust the toe-in with the steering turnbuckles. More toe-in increaes stability but reduces

steering.

Less toe-in or toe-out increases responsiveness but can make the car more unstable. A good place to start is at 0°

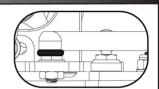


Damping

Adjust the damping by changing the o'rings under the

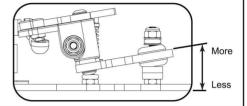
Suspension links. Too little damping or springing can cause the car to 'chatter'. Too much damping reduces overall grip.

No o'rings blue white red black
Soft Hard



Front Castor

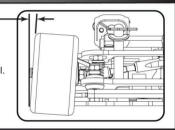
More castor inproves stability and corner exit steering. Less castor inproves corner entry steering but Reduces stability.



Front Camber

Adjust the camber by fittng the optional camber strap.

More camber increases front grip but breaks away more suddenly at the limit. Less camber makes the car slide more progressively but has less traction overall.



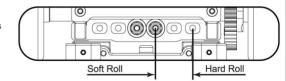
Springs

Softer springs will ride the bumps better and generally allow the car to roll more which increases traction. Harder springs make the car more responsive and are more suitable for high grip tracks.

Camber

5lb/in White 7lb/in Yellow 10lb/in Blue 14lb/in Green 19lb/in Red 26lb/in Black
Soft Hard

Additionally the rear spring position can be Adjusted to change the roll stiffness. The soft roll gives More traction, whereas the hard roll makes the car More agile and responsive.



Steering

Use hole a in the steering arm for a high velocity ratio. This means that a small amount of transmitter stick movement will create a relatively large amount of wheel movement, resulting in a fast steering response.

Hole b will lower the velocity ratio and make the car less responsive.

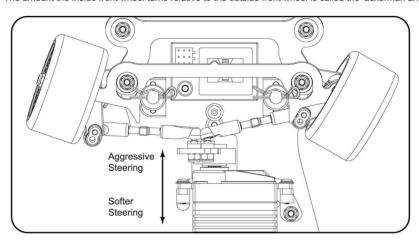
(If you have a transmitter with adjustable endpoints set the steering so that full movement on the transmitter stick, gives full lock of the wheel and no more)





Ackerman Angle

The amount the inside front wheel turns relative to the outside front wheel is called the 'ackerman angle'.



Use washers under the ball studs on the servo saver, alternatively add or remove servo spacers to move the Track rods forwards or backwards.

A forward position increases the ackerman angle and makes the steering more aggressive.

A backwards position softens the steering, making the car easier to drive.

Gear Chart 32DP

Pinion

		8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	46					3.83	3.54	3.29	3.07	2.88	2.71	2.56	2.42	2.30	2.19	2.09	2.00	1.92
5	48			4.80	4.36	4.00	3.69	3.43	3.20	3.00	2.82	2.67	2.53	2.40	2.29	2.18		
Ď	50	6.25	5.56	5.00	4.55	4.17	3.85	3.57	3.33	3.13	2.94	2.78	2.63	2.50				
	52	6.50	5.78	5.20	4.73	4.33	4.00	3.71	3.47	3.25	3.06	2.89						

Minimum Combined Tooth Sum 58T Maximum Combined Tooth Sum 70T

Gear Chart 48DP

Pinion

		14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
'n	70					3.89	3.68	3.50	3.33	3.18	3.04	2.92	2.80	2.69	2.59	2.50	2.41	2.33	2.26	2.19	2.12	2.06	2.00	1.94	1.89
Spu	74	5.29	4.93	4.63	4.35	4.11	3.89	3.70	3.52	3.36	3.22	3.08	2.96	2.85	2.74	2.64	2.55	2.47	2.39	2.31					
	78	5.57	5.20	4.88	4.59	4.33	4.11	3.90	3.71	3.55	3.39	3.25	3.12	3.00	2.89	2.79									

Minimum Combined Tooth Sum 88T Maximum Combined Tooth Sum 106T

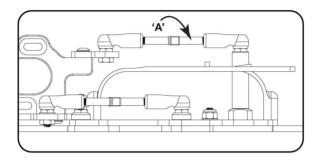


Optional Turnbuckle Suspension Links (U3985)

Anti-Squat

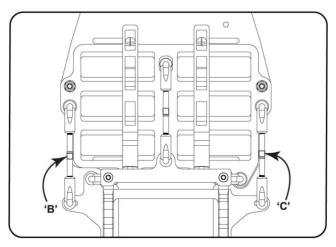
Normally when a car accelerates the torque reaction of the motor causes the rear suspension to compress or 'squat'. Lengthen the top link 'A' to introduce 'Anti-Squat'.

This gives more on power traction, but less off power traction.

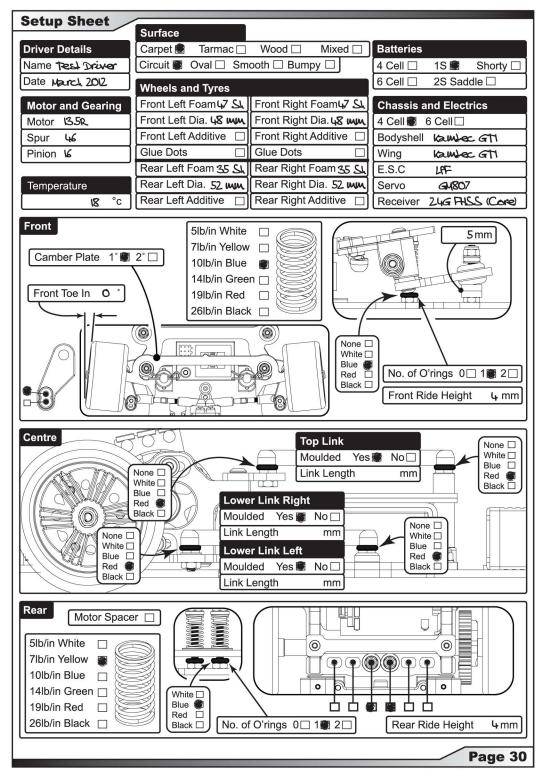


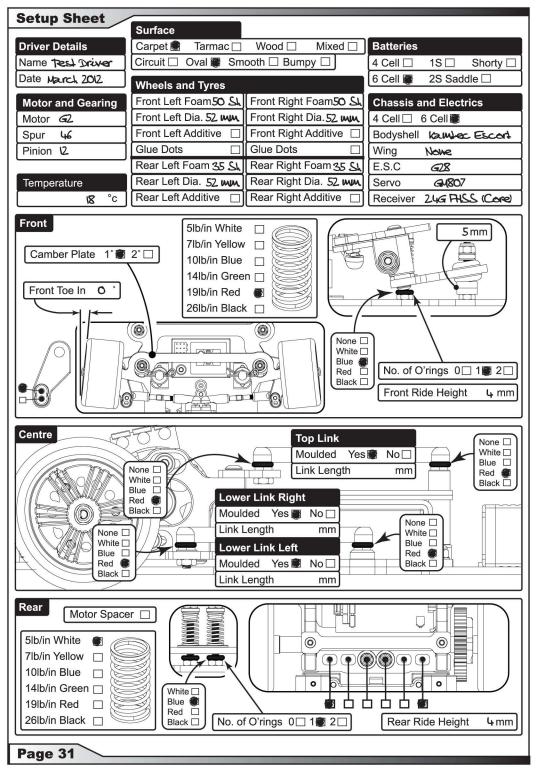
Assymetric Wheelbase

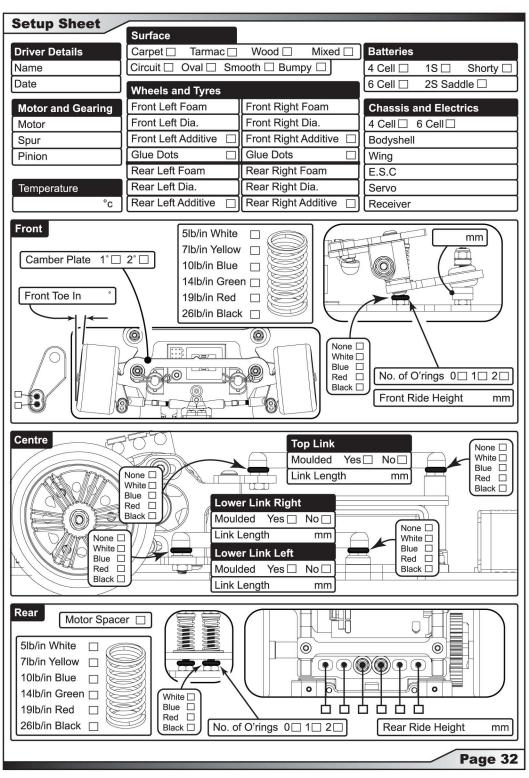
Adjust the side turnbuckles to angle the rear axle. This has a similar effect to tyre stagger and is useful for increasing corner speed when oval racing.



For anti-clockwise oval circuits, shorten turnbuckle 'B' and lengthen turnbuckle 'C'. For clockwise oval circuits, shorten turnbuckle 'C' and lengthen turnbuckle 'B'.







Bodyshells





G888 SupaStox GT Type A Body





G892 SupaStox Hot Hatch Type P2 Body





G890 SupaStox Hot Hatch Type TS Body

G894 SupaStox Touring Type M6 Body





G893 SupaStox Hot Hatch Type FF Body

G891 SupaStox Hot Hatch Type RC Body

Trued and Glued Wheels

 JM32RN
 1/12 Rear Supastox 32Sh Std Rim 52mm

 JM35RN
 1/12 Rear Supastox 35Sh Std Rim 52mm

 JM37RN
 1/12 Rear Supastox 37Sh Std Rim 52mm

 JM40RN
 1/12 Rear Supastox 40Sh Std Rim 52mm

 JM42FB
 1/12 Front Supastox 42Sh B\B Rim 48mm

JM45FB 1/12 Front Supastox 42Sh B\B Rim 48mm JM47FB 1/12 Front Supastox 45Sh B\B Rim 48mm JM47FB 1/12 Front Supastox 47Sh B\B Rim 48mm

JM50FB 1/12 Front Supastox 50Sh B\B Rim 48mm
JM50FC 1/12 Front SupStox 50Sh B\B Rim 52mm
JM60FC 1/12 Front SupaStox 60Sh B/B Rim - 52mm



"Racing Precision"

Speed Secrets



Suspension Springs

U3965 - 5lb/in White U3966 - 7lb/in Yellow (Kit) U3967 - 10lb/in Blue (Kit) U3968 - 14lb/in Green U3969 - 19lb/in Red

U3970 - 26lb/in Black U4061 - spring tuning set (6 pairs)



32 DP Spur Gears

U3945 - 46 tooth (Kit Standard) U3972 - 48 tooth

U3973 - 50 tooth U3974 - 52 tooth

48DP Spur Gears



U3976 Purple Alloy 2.5mm Motor Spacer



U3985 Turnbuckle Set. Replaces the 3 moulded links





U3131 Alloy Spacers M3 x 7mm 0.5mm, 1.0mm, 1.2mm (pk18)



Alloy Blocks & Flex Body Posts



U2187 M3 Nyloc Nut Pack of 8





Wishbone, Front Suspension Set

U3975 - Wishbone Posts - SupaStox (pr) U3984 - Front Wishbones - SupaStox U3979 - Suspension Grommets

Please note: to convert to Wishbone Front Suspension you will require one of each of the above.



Allows Camber and Castor to be different on each side of the car.



Instruction Manual

Replacement Steps 6 cell, 2s & Saddle Version.



