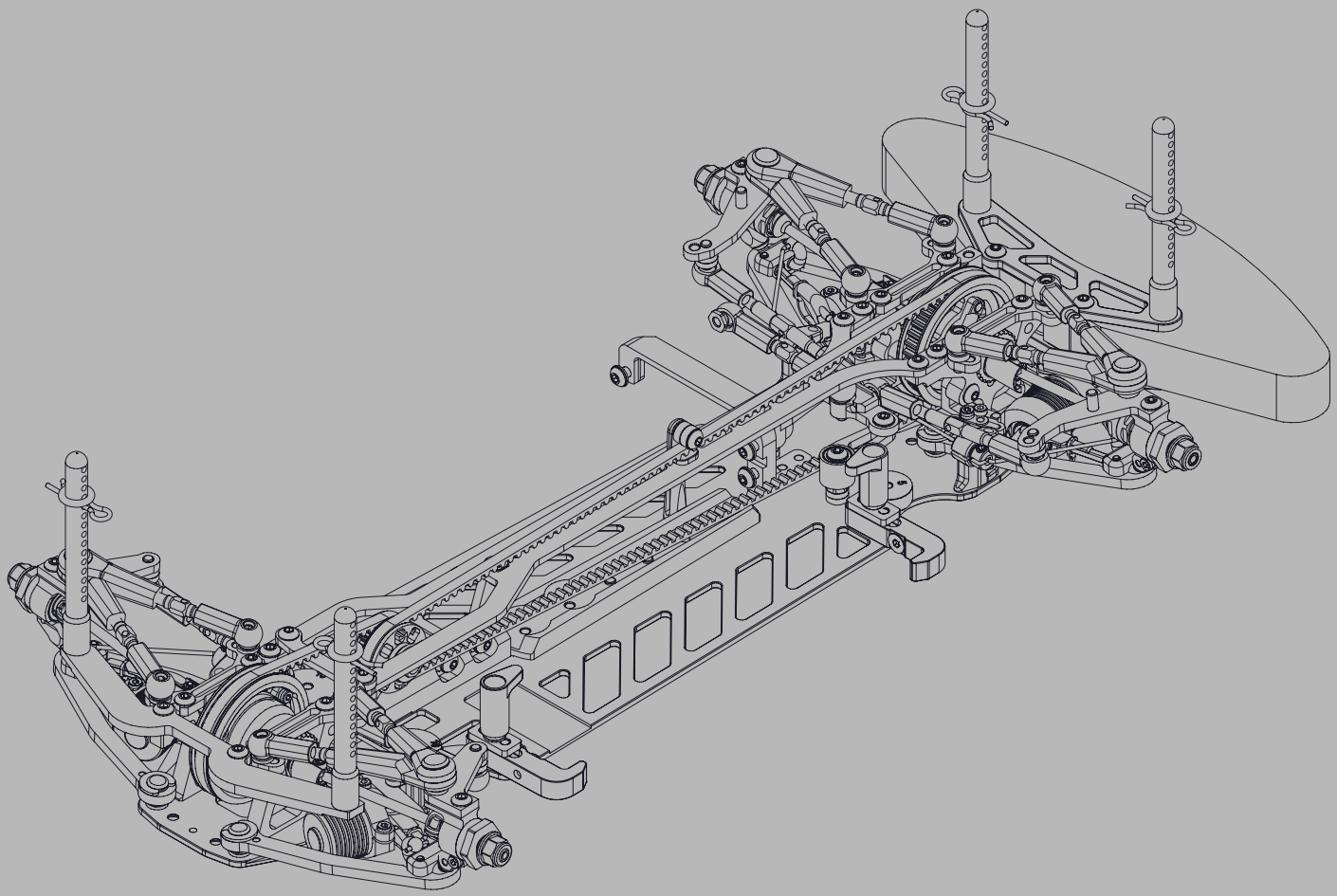
AWESOMATIX®

A800X EVO

1/10-SCALE TOURING CAR



INSTRUCTION MANUAL

INTRODUCTION

Congratulations on purchasing your Awesomatix car!
The A800X EVO car was designed in Russia and produced by Awesomatix Innovations company.
The A800X EVO car utilises many unique features, including some patented innovations.

BEFORE YOU START

The A800X EVO car is the high-quality, innovative 1/10-scale touring car and should be built only by persons with previous experience building R/C model racing cars. This is not a toy and is not intended for use by children without direct supervision of a responsible, knowledgeable adult. Read the instruction manual carefully and fully understand it before beginning assembly. If you have any problems or questions please do not hesitate to contact the Awesomatix team at support@awesomatix.com. If, for any reason, you decide that you do not want your A800X EVO car you must not begin assembly. Your A800X EVO car cannot be returned to Awesomatix Innovations for a refund or exchange if it has been fully or partially assembled.

This kit is a radio controlled model racing product and could cause harm and personal injury.
The A800X EVO car is designed for use on r/c car race tracks. It should not be used in general public areas.
Awesomatix Innovations accept no responsibility for any injuries caused by making or using this kit.

Due to policy of continuous product development the exact specifications of the kit may vary.

ASSEMBLY NOTES

Before starting each build-stage check that you have the right quantity and size of items for the build-stage. To assist you with the assembly of your A800X EVO car we have included full-size images of all the small hardware parts laid out so that you can place items on top of the images to check they are the correct size/length. You can find the useful tips and pictures of A800X EVO assembling on the Internet sites: **www.awesomatix.info/en/tipps-tricks/aufbau/**, **www.awesomatixusa.com/p/tips.html**, **http://jdandracing.blogspot.gr**, **http://site.petitrc.com/reglages/awesomatix/SetupSheetsAwesomatixA800.html.**

GENERAL PRECAUTIONS

- Many of the items in this kit are small enough to be accidentally swallowed and are therefore potential choking hazards, making them potentially fatal. Please ensure that when assembling the kit you do so out of the reach of small/young children.
- Take care when building, as some parts may have sharp edges.
- Please read this manual carefully to understand which ancillary items (tools, electrics, electronics etc) are used with this kit. Awesomatix Innovations accept no responsibility for the operation of any such ancillary items.
- Exercise care when using tools and sharp instruments.
- Follow the operating instructions for the radio equipment at all times.
- Never touch rotating parts of the car as this may cause injury.
- Keep the wheels of the model off the ground when checking the operation of the radio equipment.
- To prevent any serious personal injury and/or damage to property, be responsible when operating all remote controlled models.
- The model car is not intended for use on roads or areas where its operation can conflict with or disrupt pedestrian or vehicular traffic.
- Do not run your car in poor light or if it goes out of sight. Any impairment to your vision may result in damage to your car or, worse, injury to others or their property.
- As a radio controlled device, your car is subject to radio interference from things beyond your control. Any such interference may cause a loss of control of your car so please consider this possibility at all times.
- When not using RC model, always disconnect and remove battery.
- Insulate any exposed electrical wiring to prevent dangerous short circuits.
  Take maximum care in wiring, connecting and insulating cables. Make sure cables are always connected securely.
  Check connectors for if they become loose and if so reconnect them securely. Never use R/C models with damaged wires.
  A damaged wire is extremely dangerous and can cause short-circuits resulting in fire.

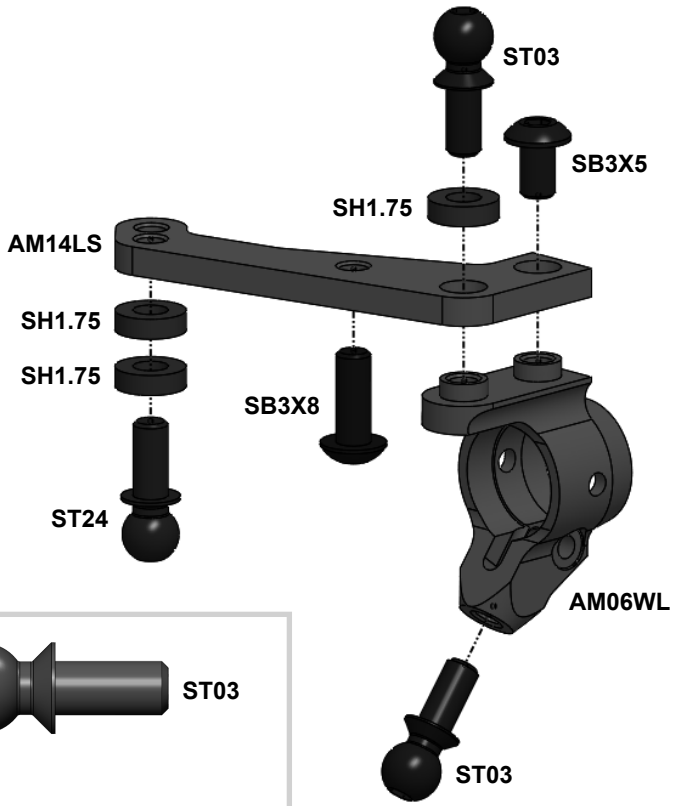
EQUIPMENT RECOMMENDED (NOT INCLUDED)

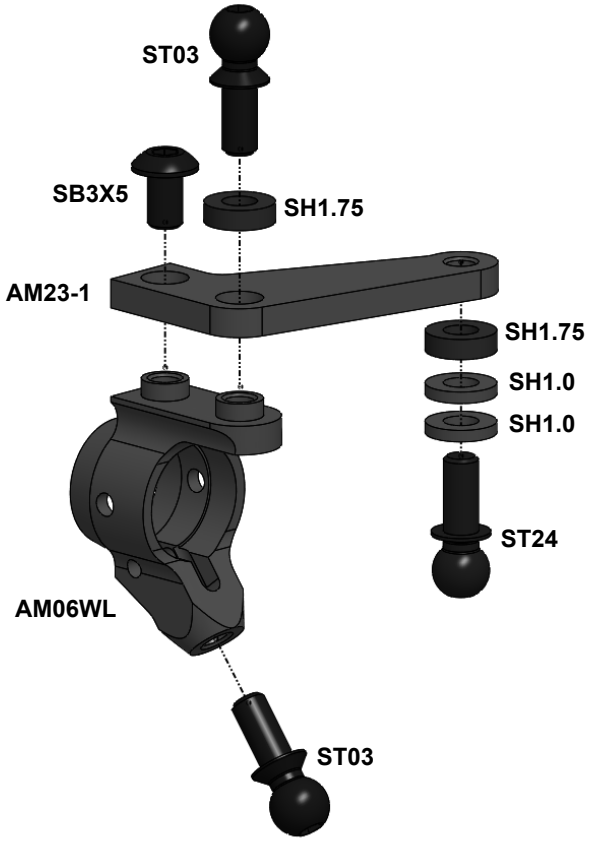
- Radio Transmitter
- Radio Receiver
- Electronic Speed Control
- Steering Servo
- Electric Motor
- Pinion Gear (64 or 48 Pitch)
- Spur Gear (64 or 48 Pitch)
- 7.4 V Li-Po Battery
- 190mm Body Shell
- Touring Car Wheels, Tires, Inserts

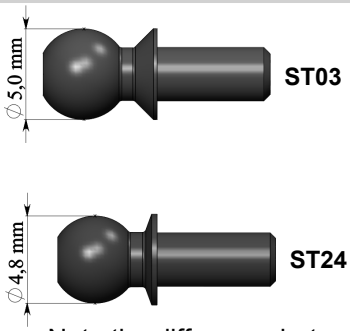
TOOLS RECOMMENDED (NOT INCLUDED)

- 1.5mm, 2.0mm Hex Driver
- 5.5mm, 9mm, 3/8”, 10mm Wrenches
- Callipers
- Hobby Knife
- Camber Gauge
- Ride Height Gauge
- Thin CA Glue
- Thread Lock
- Diff Silicone Oil
- Joint Grease

STEP 1







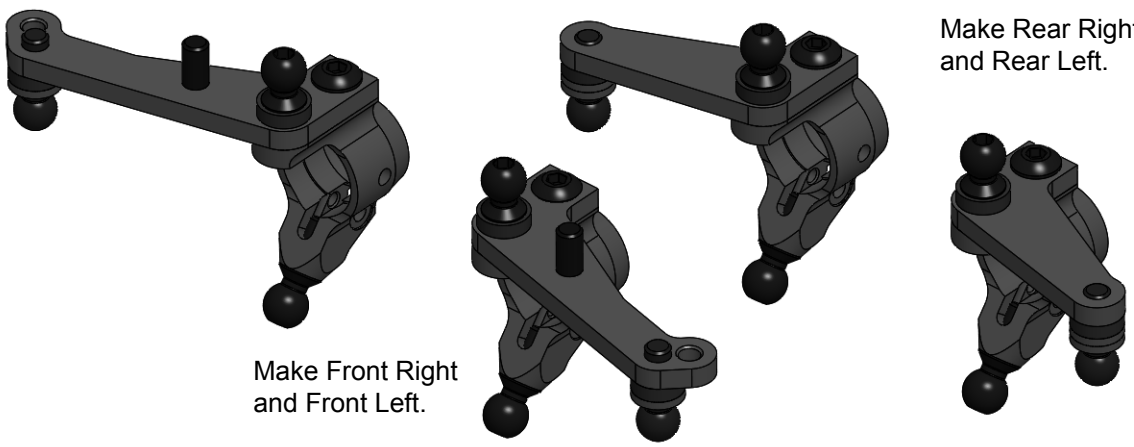
Note the difference between **ST03** and **ST24** Ball Studs!

Note: The last turns of the lower **ST03** Ball Studs and SB3X5 screws can be tight. Screw them with force.

SB3X5	M3x5 Button Head Screw	x4	**ST03**	Ball Stud	x8
SB3X8	M3x8 Button Head Screw	x2	**AM06WL**	Steering Block	x4
			AM14LS	Steering Arm	x2
SH1.0	6x3x1mm Spacer (Gray)	x4	**AM23-1**	Rear Steering Arm	x2
SH1.75	6x3x1.75mm Spacer (Black)	x10	**ST24**	4,8mm Ball Stud	x4

STEP 1 FINISHED

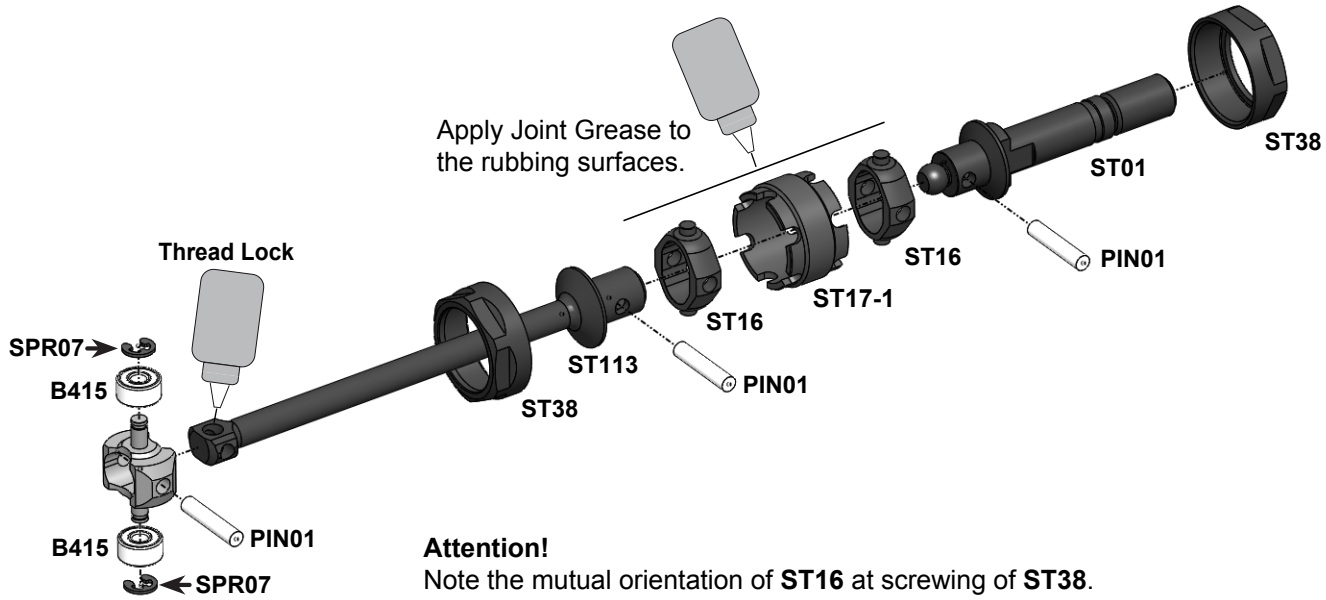
Note: Use other combinations of **SH0.5, SH1.0** and **SH1.75** Spacers under appropriate Pivot Balls and Ball Studs to adjust your car set-up to better suit different track conditions.



Make Front Right and Front Left.

Make Rear Right and Rear Left.

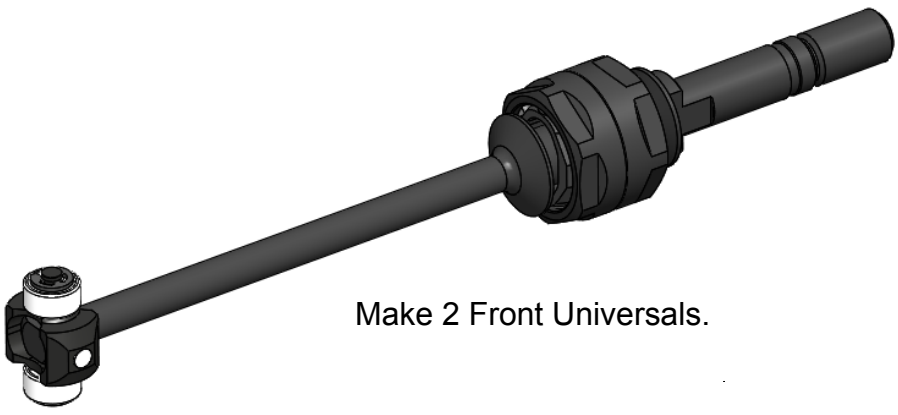
STEP 2



Attention!
Note the mutual orientation of **ST16** at screwing of **ST38**.
The pins of both **ST16** should be parallel to each other.
The recommended wrench for screwing of **ST38** is
3/8 US standard wrench (~ 9,53 mm).

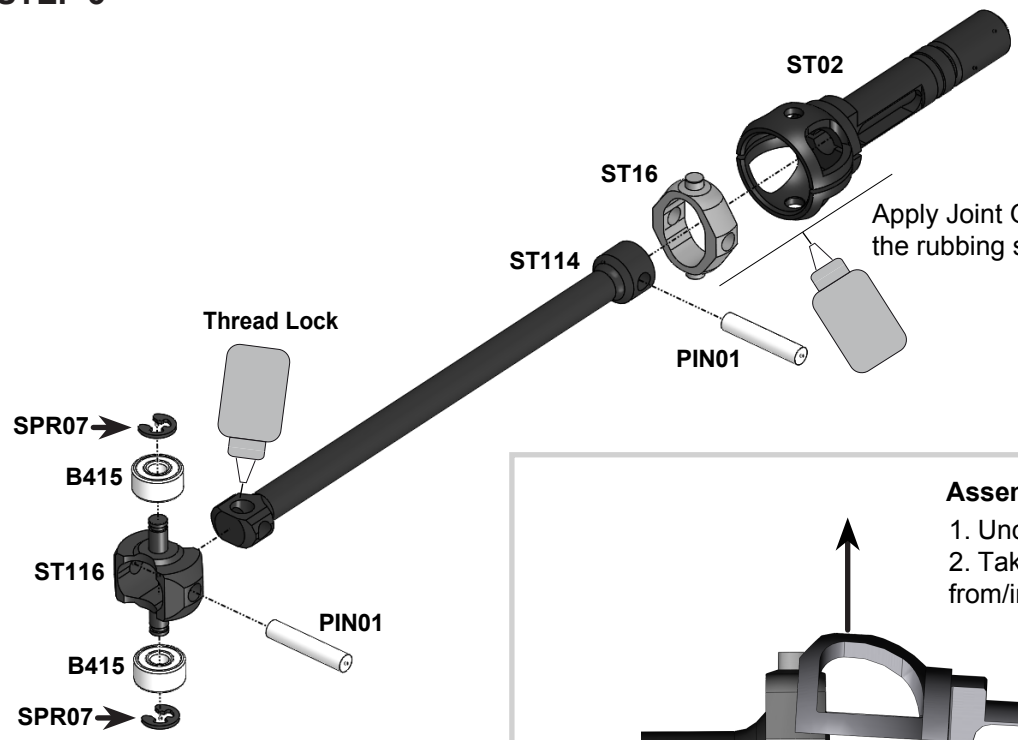
PIN01 1.5x7.8 Pin	x6		**ST01** Front Axle	x2
SPR07 E-Ring	x4		**ST16** U-Joint Cross	x4
B415 Bearing	x4		**ST17-1** Universal Ring	x2
ST116 IFJ/IRJ Cross	x2		**ST113** Front Universal Bone	x2
			ST38 Universals Nut	x2

STEP 2 FINISHED



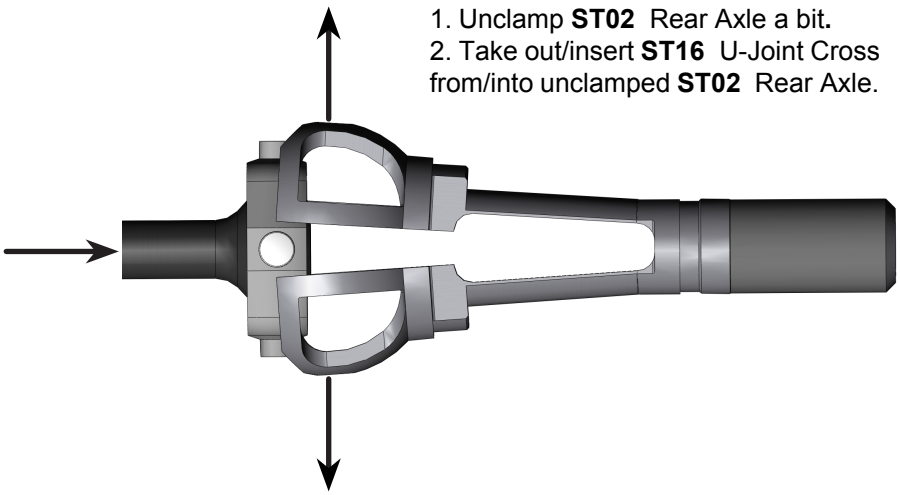
Make 2 Front Universals.

STEP 3



Assembling/disassembling method

1. Unclamp **ST02** Rear Axle a bit.
2. Take out/insert **ST16** U-Joint Cross from/into unclamped **ST02** Rear Axle.

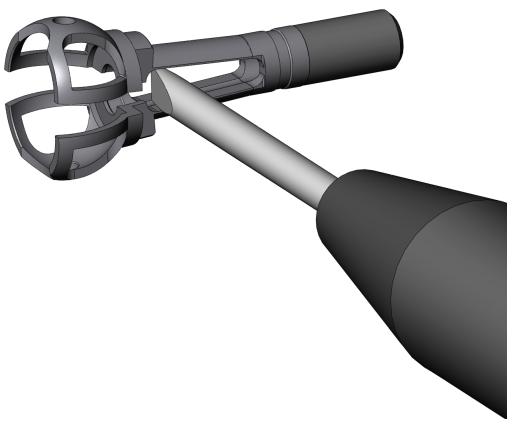


PIN01 1.5x7.8 Pin	x4	**ST02** Rear Axle	x2
SPR07 E-Ring	x4	**ST16** U-Joint Cross	x2
B415 Bearing	x4	**ST114** Rear Universal Bone	x2
		ST116 IFJ/IRJ Cross	x2

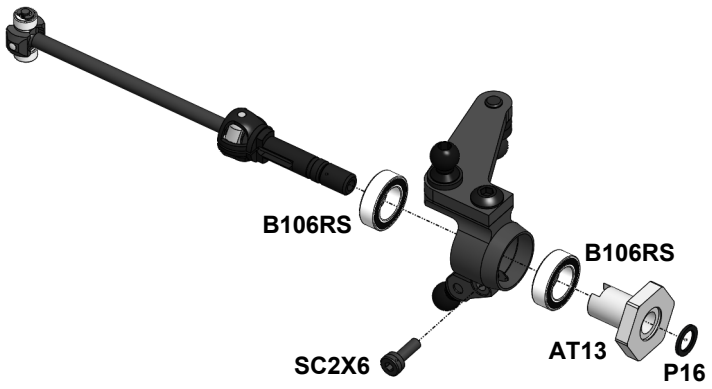
STEP 3
FINISHED

Make 2 Rear Universals.

Tip:
Use a 2.5mm flat screwdriver to unclamp **ST02** Rear Axle.

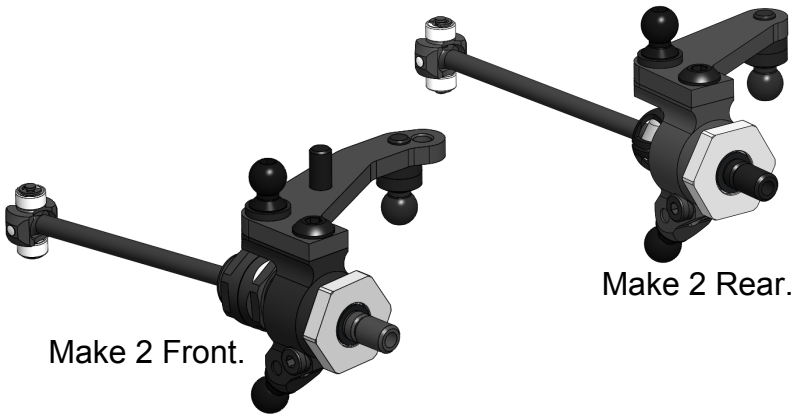


STEP 4

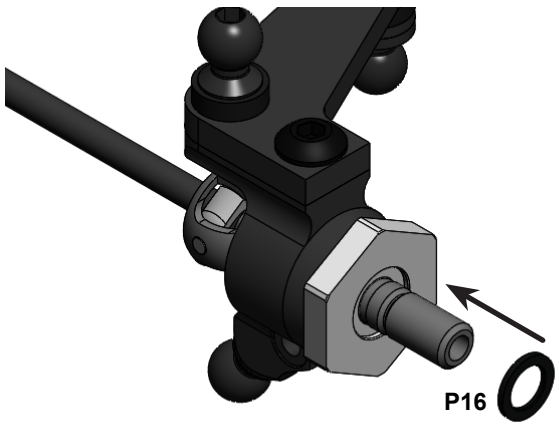


B106RS	MR106RS Bearing	x8	**AT13**	Wheel Hex	x4
SC2X6	M2x6 Cap Head Screw	x4			
P16	Lock Ring	x4			

STEP 4 FINISHED



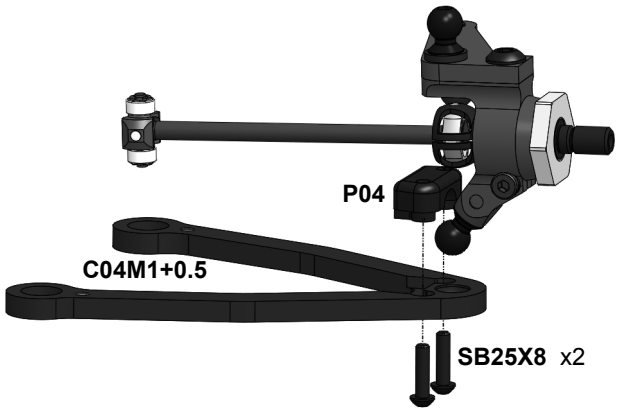
Note: Rear Universals may be a bit tight at this stage. But don't worry as the Rear Universals take its true position after the wheels mounting.



Note: Press **P16** Lock Ring on the Axle to fix it. For disassembly hit to the end face of the Axle or press down on it.

STEP 5

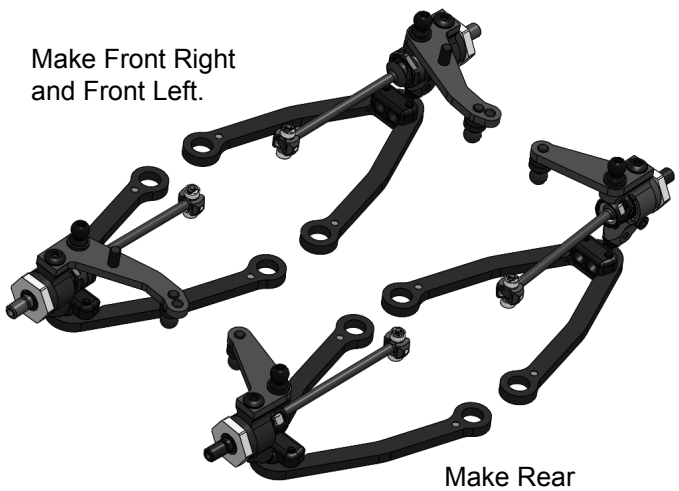
SB25X8	M2.5x8 Button Head Screw	x8
C04M1+0.5	Suspension Arm	x4
P04	Arm Hasp	x4



Note:
P04 have the tight fit in the **C04M1+0.5** arm.
Don't overtighten **SB25X8** screws to avoid **ST03** binding.
Achieve a free action of the ball joint with a minimal backlash.

STEP 5 FINISHED

Make Front Right and Front Left.

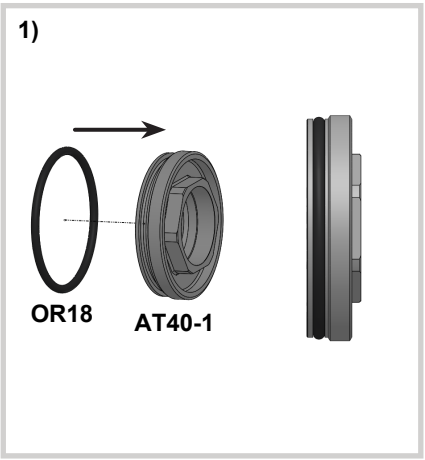


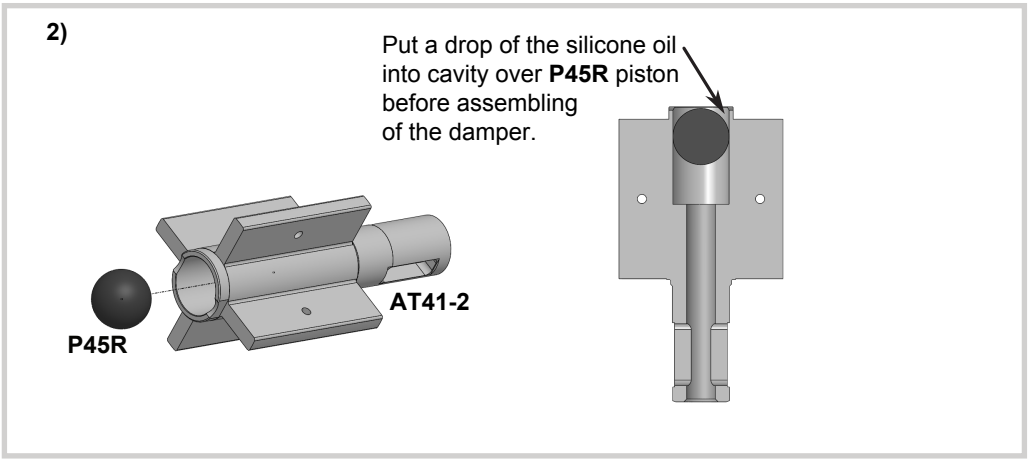
Make Rear Right and Rear Left.

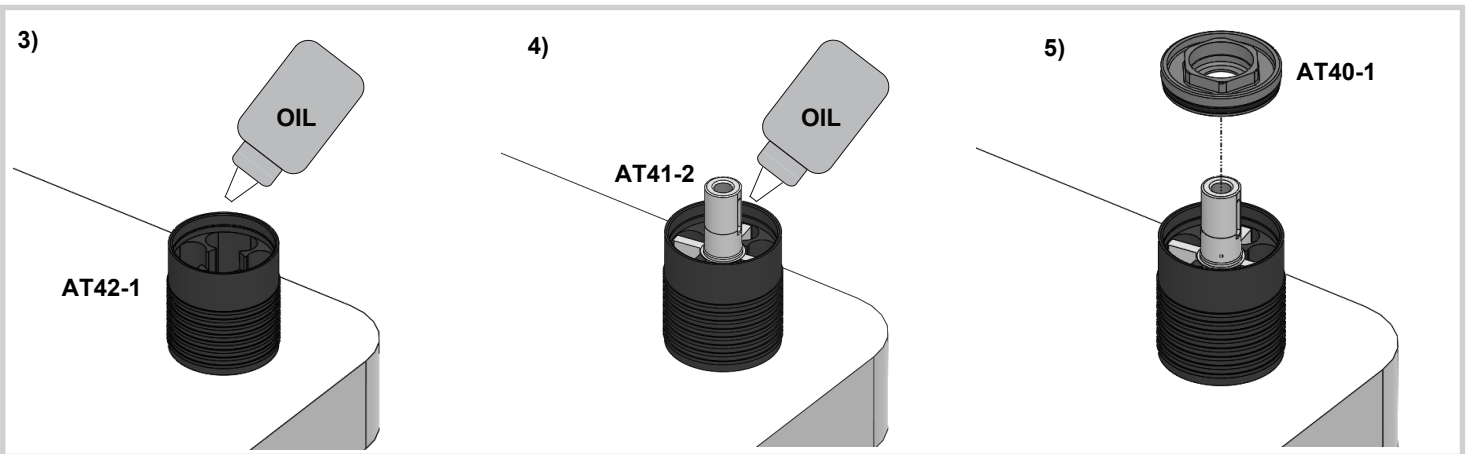
Rebuildable Damper Set

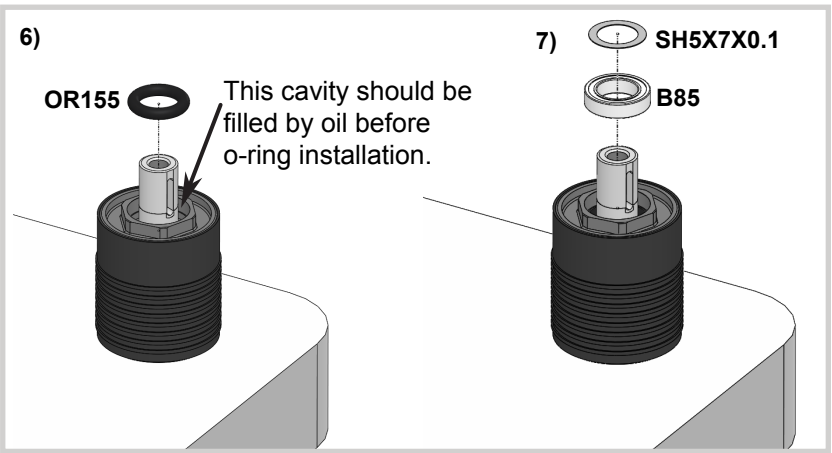
Note: Every **A800X** kit includes four factory assembled and oil filled **D2.2** Rebuildable Dampers. **D2.2** damper allows for both dampening adjustment via thicker silicon oil, and consistent performance since the racer can rebuild the shock.
The factory assembled and oil filled **D2.2** Rebuildable Dampers come with 500 cst pure silicone oil inside.
The build instructions for **D2.2** Rebuildable Dampers is on this page.
For disassembling please do all steps in the reverse order.

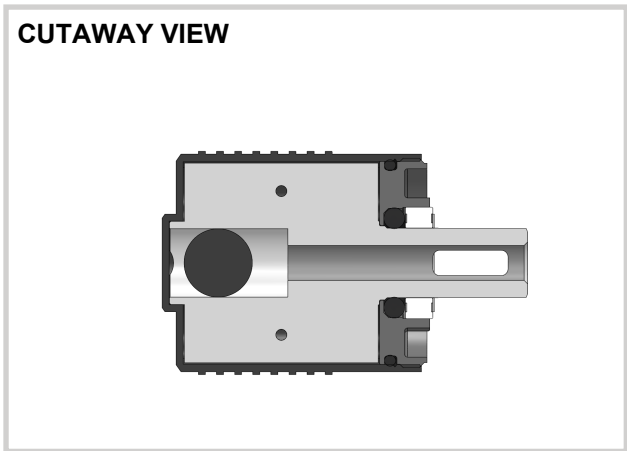
1) Stretch and place **OR18** O-ring in the groove of the **AT40-1** Cup.
2) Insert **P45R** Piston into **AT41-2** Vane cavity. Align the outer face of **P45R** Piston with the outer edge of **AT41-2** Vane cavity.
3) Stand **AT42-1** Case up and fill ~1/2 of volume with the desirable silicone oil. Insert **AT41-2** Vane into **AT42-1** Case slowly full way down.
4) Add more silicone oil. Oil should cover the **AT41-2** Vane completely. It is highly recommend that damper be placed into a vacuum pump to remove air. Otherwise let the damper sit for 30m+ to allow air bubbles to escape.
5) With the damper still vertical (important !), screw **AT40-1** Cup into the **AT42-1** Case with a 9mm socket wrench until fully threaded. Do not force the **AT40-1** Cup - once aligned, it will screw on easily. The excessive oil should go out through the gap between **AT40-1** and **AT41-2** Vane. Please don't remove this oil from the bearing cavity of **AT40-1** Cup on this stage!
6) Place **OR155** O-ring into **AT40-1** Cup. You can use a piece of an appropriate tube to press o-ring slowly and fully into cavity.
7) Place **B85** bearing and one **SH5X7X0.1** shim onto **AT41-2** Vane output shaft.
8) Clean up oil off the outer surface of damper.



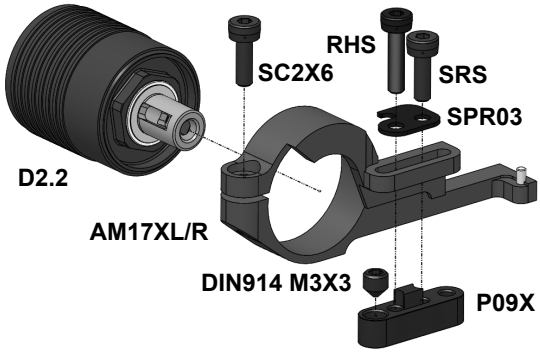


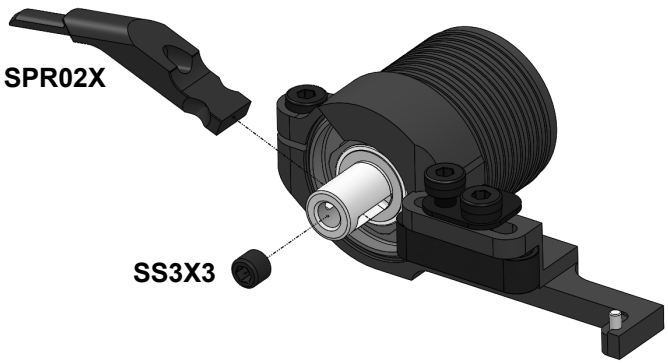






STEP 6



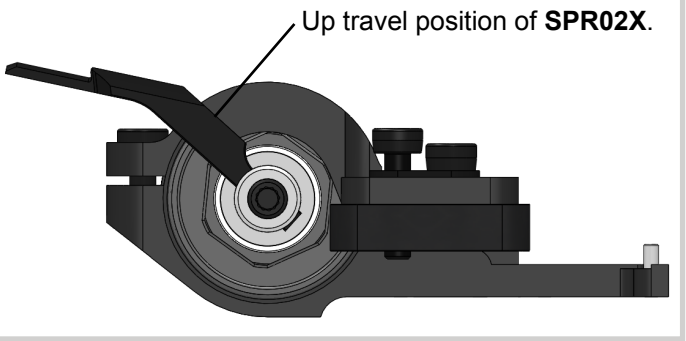


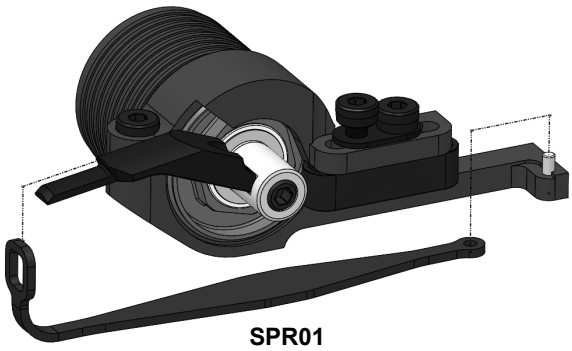
Note: **DIN914 M3X3** screw should be installed only in case of PSS - Progressive Spring Setting function want to be used. More info about PSS can be found on the **P09X** product page of the **http://shop.awesomatix.com** webshop.

SC2X6	M2x6 Cap Head Screw	x4	**AM17XR**	Damper Holder Right	x2
SRS	Spring Rating Screw	x4	**AM17XL**	Damper Holder Left	x2
RHS	Ride Height Screw	x4	**D2.2**	Damper	x4
SPR03	Shock Pointer	x4	**SPR01**	STD Shock Sprin	x4
P09X	Shock Screw Holder	x4	**SPR02X**	Shock Rod Guide	x4

STEP 6 (cont'd)

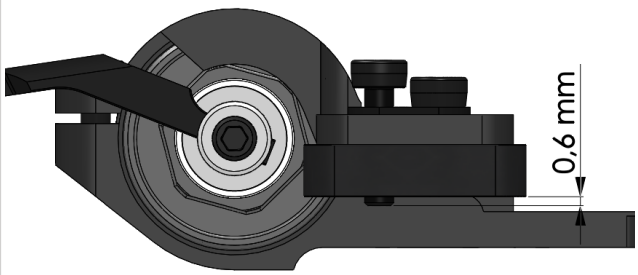
Attention! After installation of **SPR02X** rotate the complete **D2.2** damper within **AM17XR/L** until the maximum up travel is reached and secure **SC2X6** screw in the **AM17X/RL** after that. At the max up travel position the **SPR02X** should touch the stopper on **AM17X/RL** !!!





STEPS 6 FINISHED

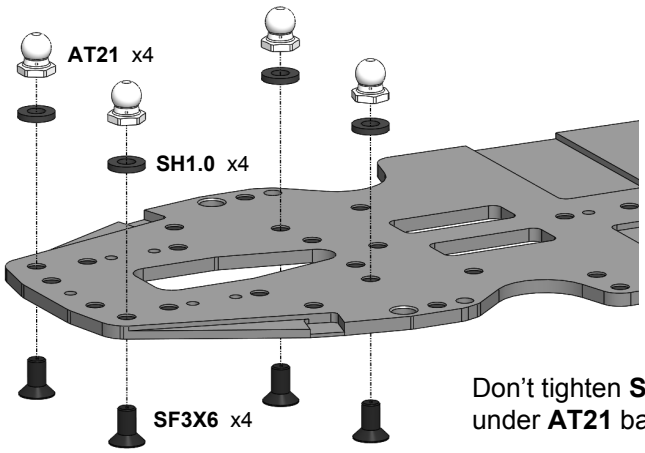
Assemble 2 Right Shocks and 2 Left Shocks.

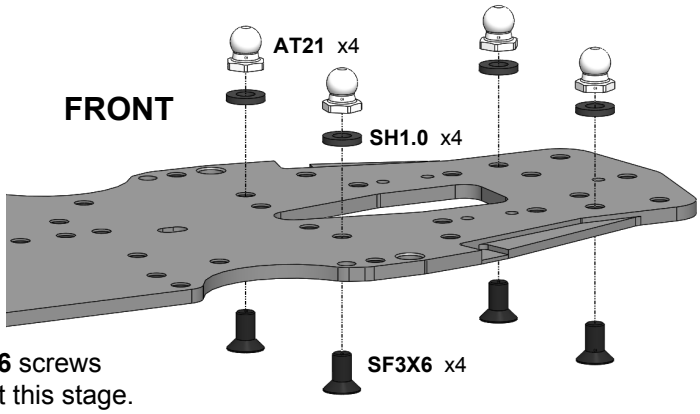


Note:
Initial position of **RHS** Ride Height Screw is ~0,6mm. Don't tighten **SRS** Spring Rating Screw too much to avoid **P09X** thread damage.

STEP 7

Note: C01B-X-LA Carbon Lower Deck is used in A800X EVO kit
C01B-XA-LA Alloy Lower Deck is used in A800XA EVO kit
C01B-XAH-LA Alloy Hard Lower deck is used in A800XAH EVO kit



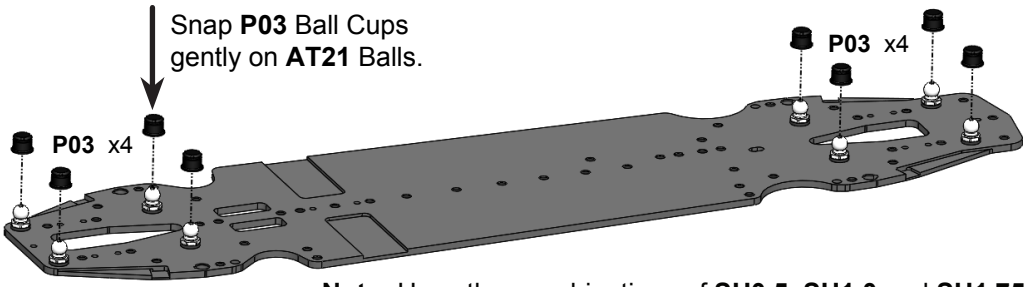


Don't tighten **SF3X6** screws under **AT21** balls at this stage.

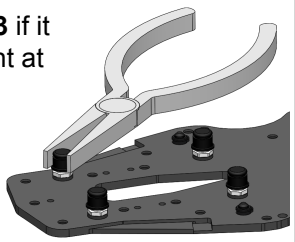
SF3X6 M3x6 Flat Head Screw	x8	**P03** Arm Ball Cap	x8
SH1.0 6x3x1mm Spacer (Gray)	x8	**AT21** Pivot Ball	x8

STEP 7 FINISHED

Snap **P03** Ball Cups gently on **AT21** Balls.



Crimp **P03** if it will be tight at swinging.

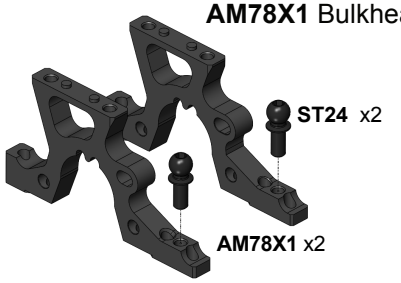


Note: Use other combinations of **SH0.5, SH1.0** and **SH1.75** spacers under appropriate **AT21** balls to adjust your car set-up.

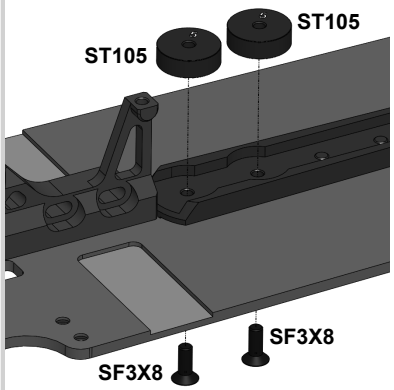
STEP 8

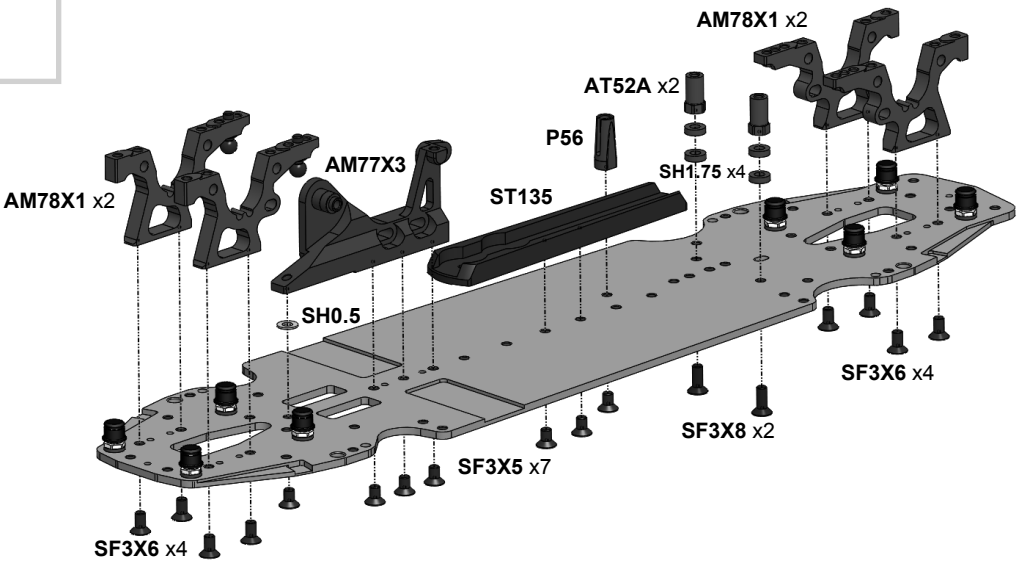
SF3X6 M3x6 Flat Head Screw	x8	**ST24** 4,8mm Ball Stud	x2
SF3X5 M3x5 Flat Head Screw	x7	**AM77X3** Motor Mount	x1
SF3X8 M3x8 Flat Head Screw	x2	**AM78X1** Bulkhead	x4
SH1.75 6x3x1,75mm Spacer	x4	**ST135** 35g Chassis Stiffener	x1
		P56 Antenna Holder	x1
		AT52A Bellcrank Post	x2

Install two **ST24** Ball Studs on two rear **AM78X1** Bulkheads.

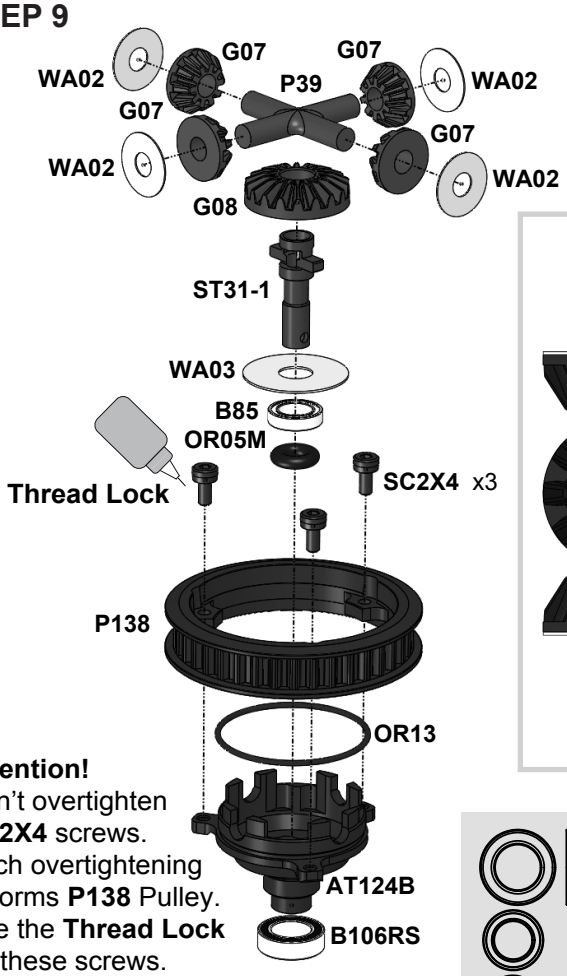


Installation of additional **ST105** Round Weights is possible.

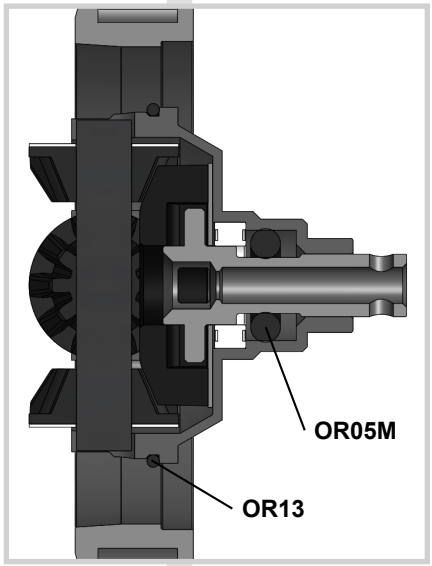




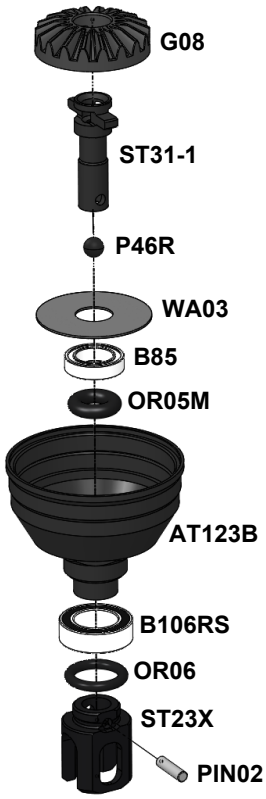
STEP 9



Attention!
Don't overtighten **SC2X4** screws. Such overtightening deforms **P138** Pulley. Use the **Thread Lock** for these screws.



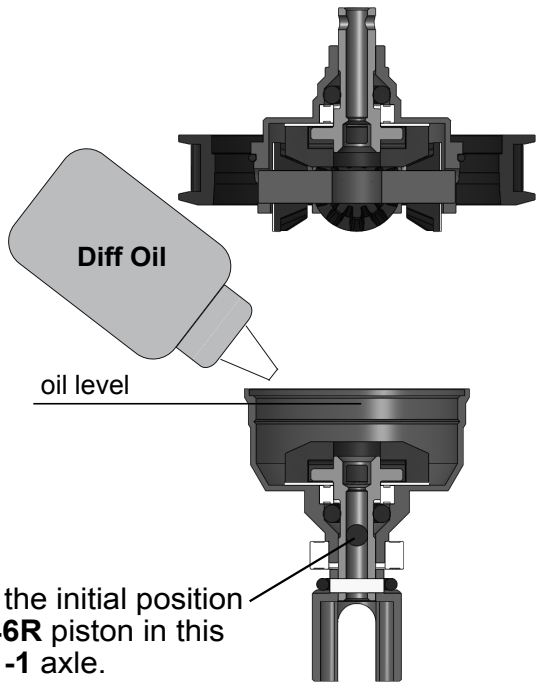
STEP 10



B106RS	MR106RS Bearing	x2	**AT123B**	GD2B Case1	x1
			AT124B	GD2B Case2	x1
B85	MR85 Bearing	x2	**P138**	38T Pulley	x1
			ST23X	IRJ Outdrive	x2
OR05M	O-Ring	x2	**ST31-1**	GD2 Output Axle	x2
			P39	GD2 Cross Pin	x1
OR06	O-Ring	x2	**OR13**	13 mm O-Ring	x1
			G07	GD2 Satellite Gear	x4
P46R	Piston	x2	**G08**	GD2 Bevel Gear	x1
PIN02	1,5x5,8 Pin	x2	**WA02**	3.5x9.5x0.2 Washe	x4
SC2X4	M2x4 Cap Head screw	x3	**WA03**	5x15.5x0.3 Washer	x2

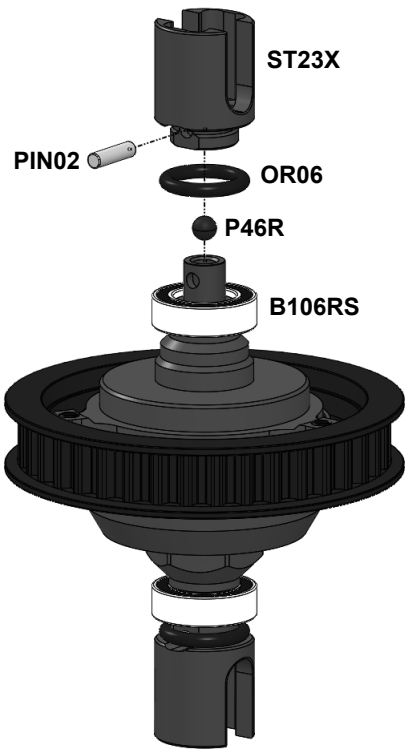
STEP 11

Fill with desirable silicone oil (not included).
Screw **AT123B** GD2B Case with 10mm wrench slowly.
The excessive oil will go out through the **ST31-1** axial hole.

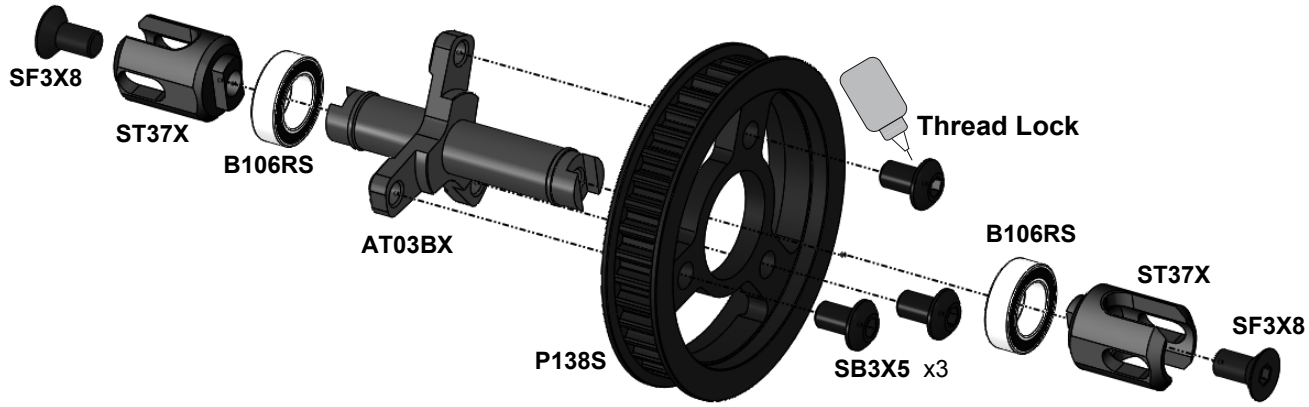


Note the initial position of **P46R** piston in this **ST31-1** axle.

STEP 12

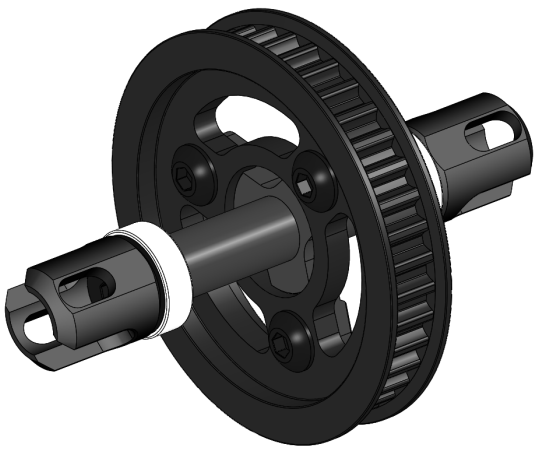


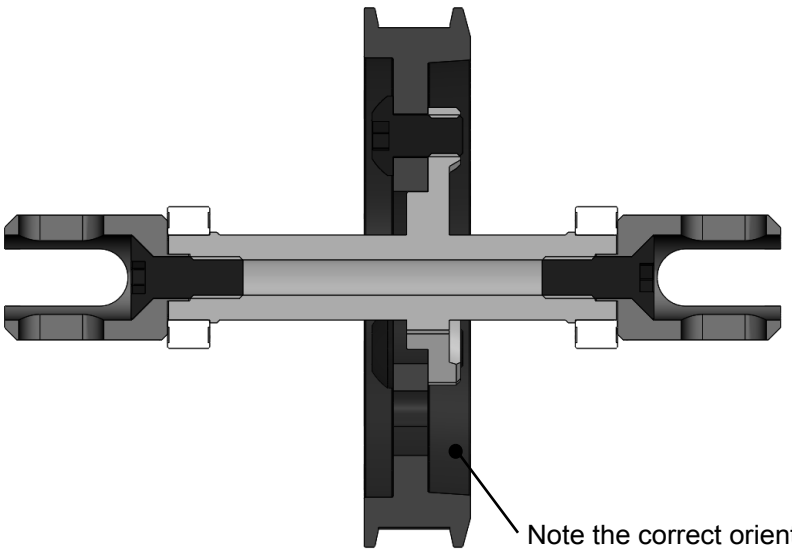
STEP 13



B106RS MR106RS Bearing	x2	**ST37X** Spool Outdrive	x2
SF3X8 M3x8 Flat Head Screw	x2	**AT03BX** Spool Axle	x1
SB3X5 M3x5 Button Head Screw	x3	**P138S** Spool38T Pulley	x1

STEP 13 FINISHED



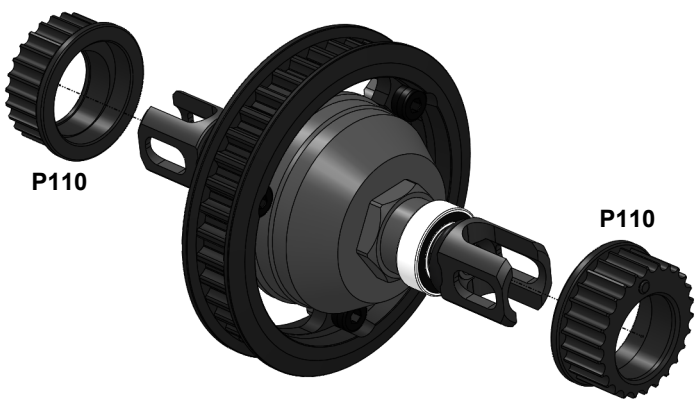


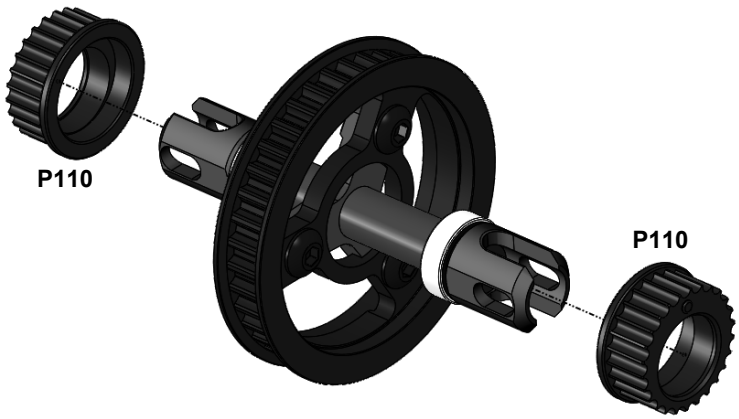
Attention!
Don't overtighten **SC3X5** screws.
Such overtightening deforms **P138S** Pulley.
Use the **Thread Lock** for these screws.

Note the correct orientation of **AT03BX** Axle regarding to **P138S** Pulley.

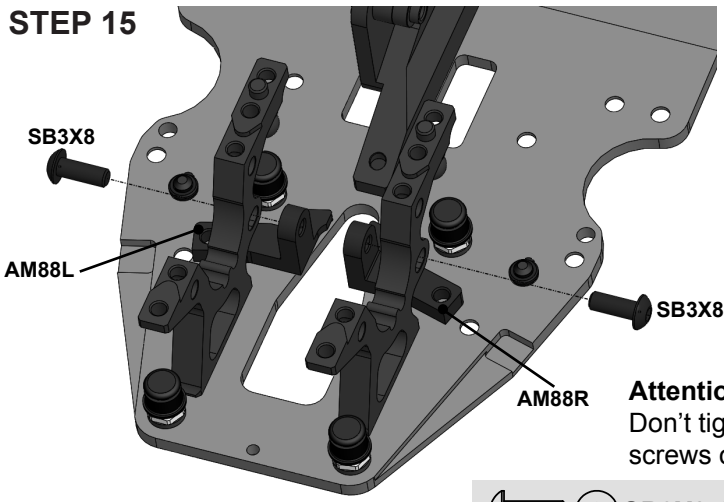
STEP 14

P110 Bearing Housing x4

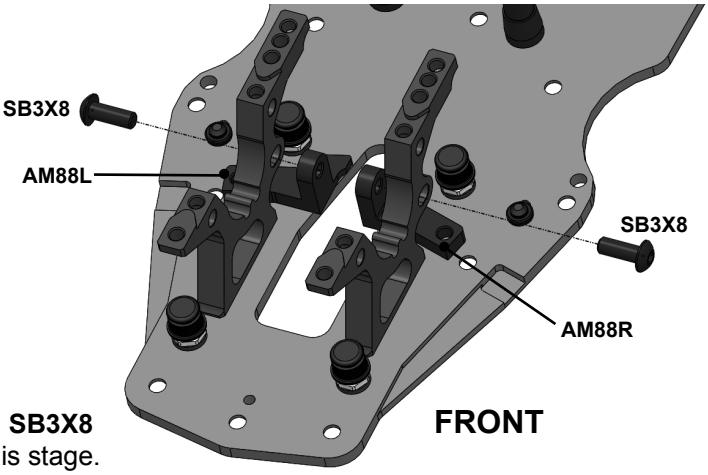




STEP 15



REAR

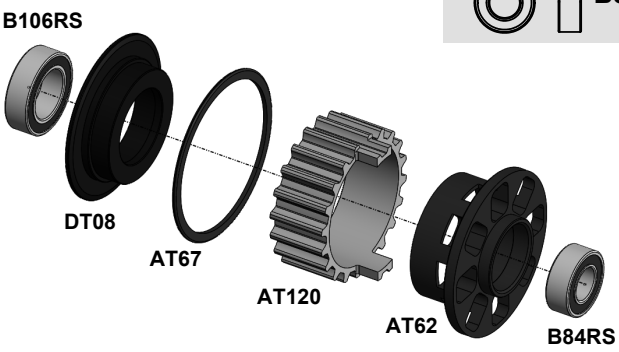


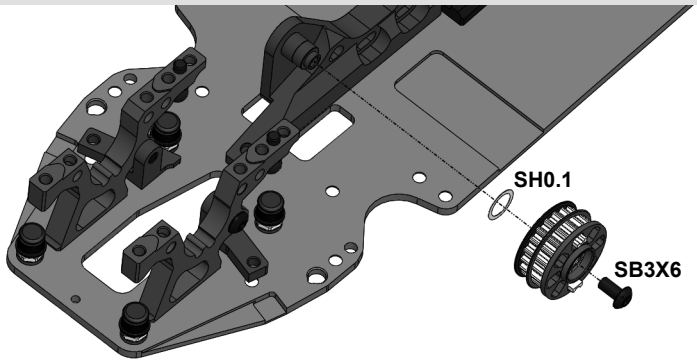
FRONT

Attention!
Don't tighten **SB3X8** screws on this stage.

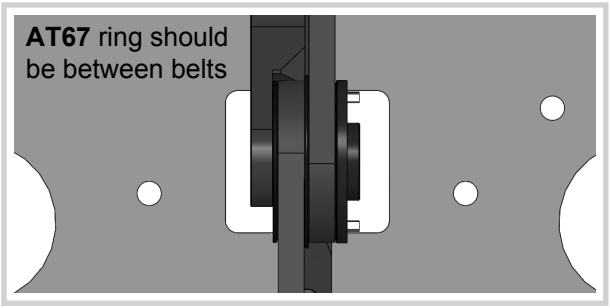
SB3X8	M3x6 Button Head Screw	x4	**AM88R**	Shock Holder R	x2
SB3X6	M3x6 Button Head Screw	x1	**AM88L**	Shock Holder L	x2
SH0.1	6x8x0.1mm Shim	x1	**AT120**	20T Alloy Pulley	x1
B106RS	MR106RS Bearing	x1	**AT62**	Spur Holder	x1
B84RS	MR84RS Bearing	x1	**DT08**	Pulley Flange	x1
			AT67	Pulley Washer	x1

STEP 16

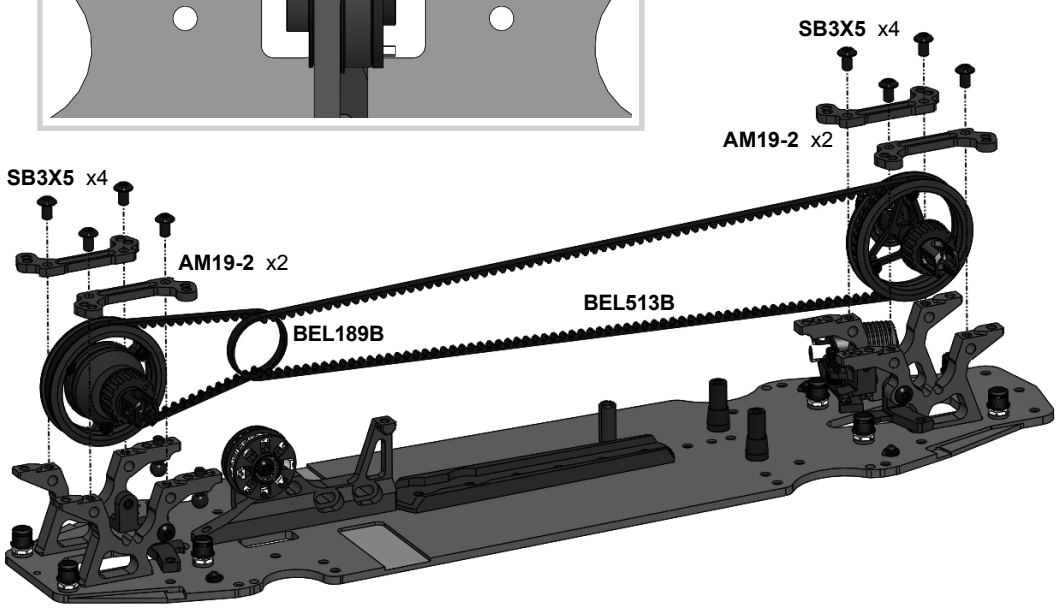




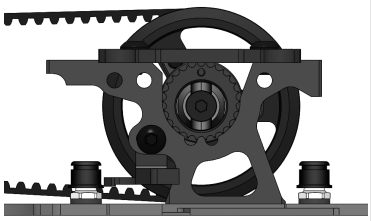
STEP 17



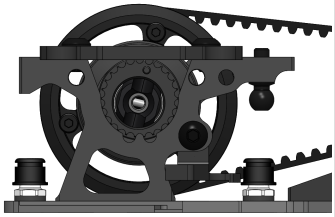
SB3X5	M3x5 Button Head Screw	x8	**AM19-2**	Upper Arm Holder	x4
			BEL513B	Belt 513 mm	x1
			BEL189B	Belt 189 mm	x1



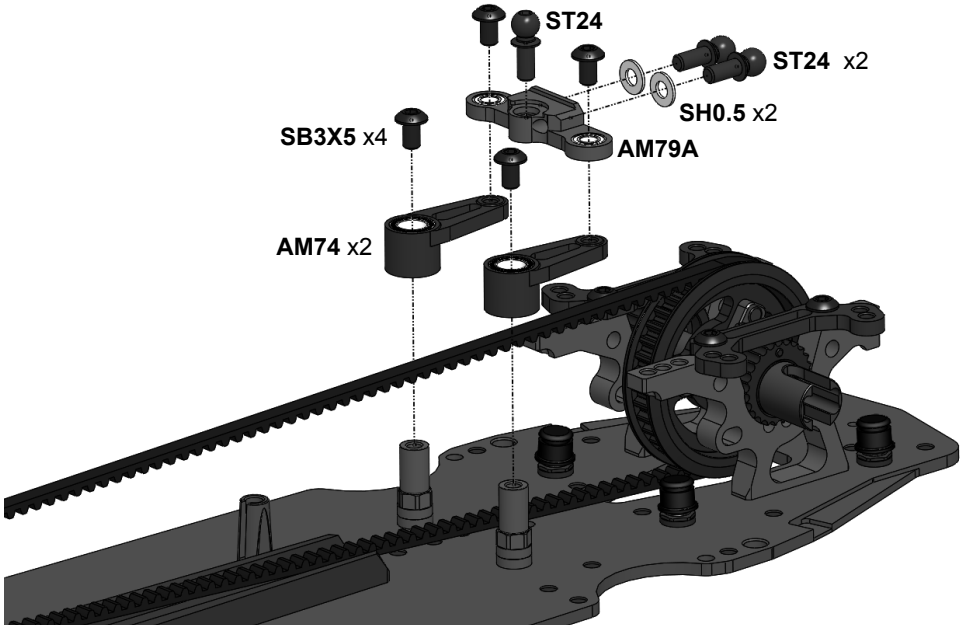
Initial position of front **P110**



Initial position of rear **P110**

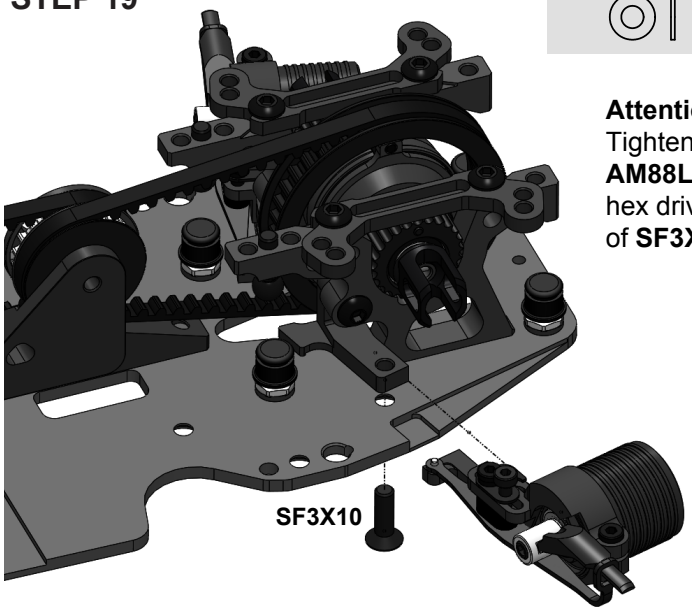


STEP 18

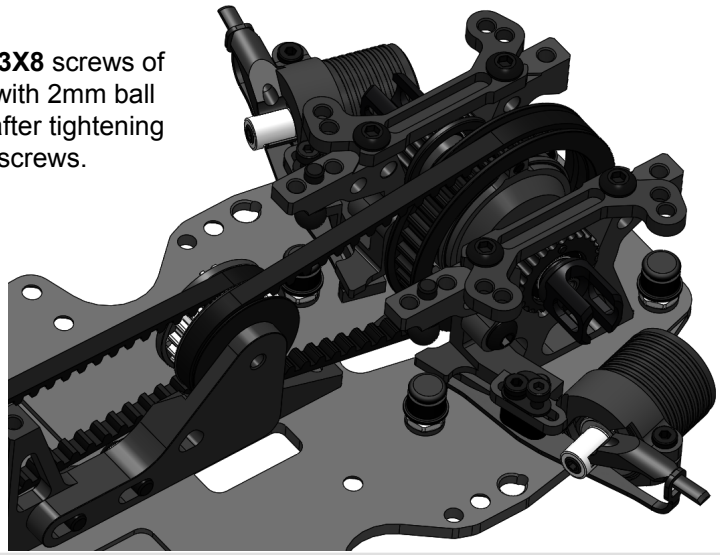


SB3X5	M3x5 Button Head Screw	x4	**AM79A** Steering Rack		x1
SF3X10	M3x10 Flat Head Screw	x4	**AM74** Steering Bellcrank		x2
SH1.0	6x3x0.5mm Spacer (Silver)	x2	**ST24** 4,8x6mm Ball Stud		x3

STEP 19

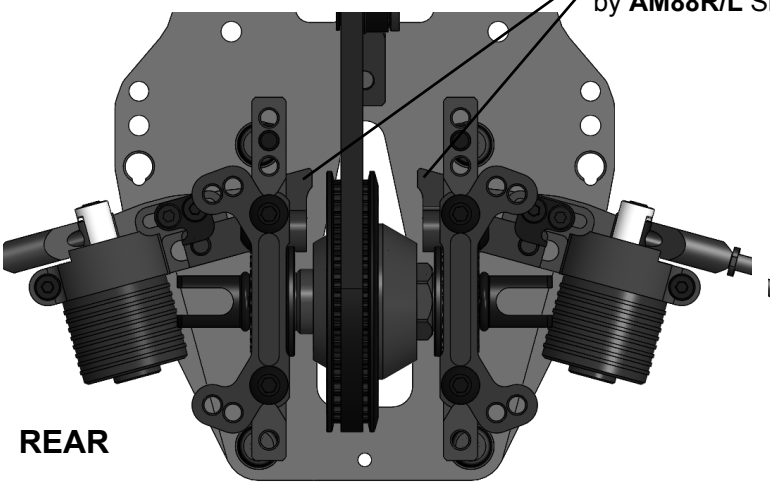


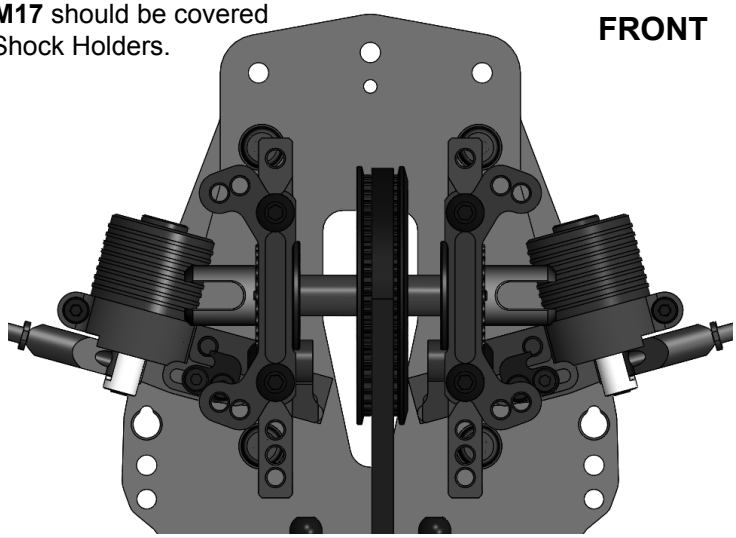
Attention!
Tighten **SB3X8** screws of **AM88L/R** with 2mm ball hex driver after tightening of **SF3X10** screws.



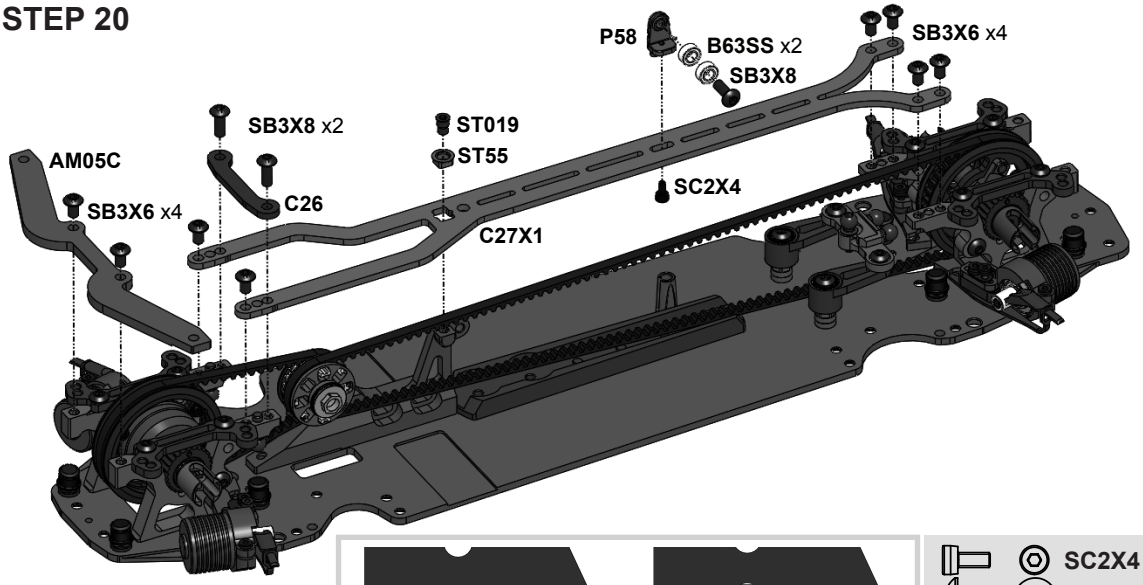
STEP 19 FINISHED

The pins of **AM17** should be covered by **AM88R/L** Shock Holders.



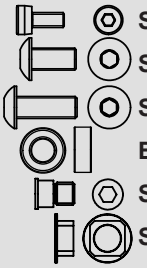


STEP 20



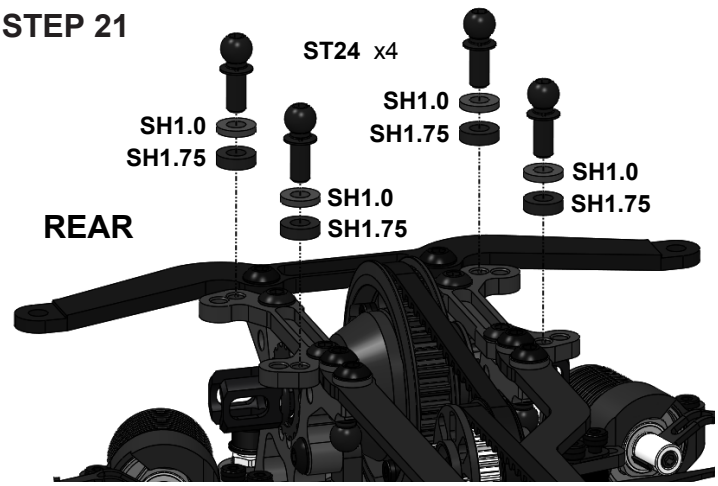
C27X1 Top Deck x1
C26 Top Stiffener x1
P58 Belt Tensioner x1
AM05C Rear Holder x1

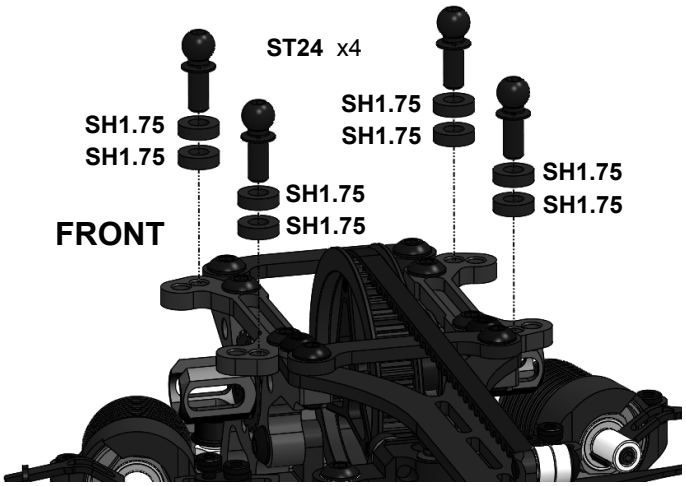
Note: Two orientations of **ST55** bushing are possible. Position **I** provides an increased flex of the chassis.



SC2X4 M2x4 Cap Head Screw x1
SB3X6 M3x6 Button Head Screw x8
SB3X8 M3x8 Button Head Screw x3
B63SS MR63ZZ bearing x2
ST019 Top Deck Screw x1
ST55 Top Deck Bushing x1

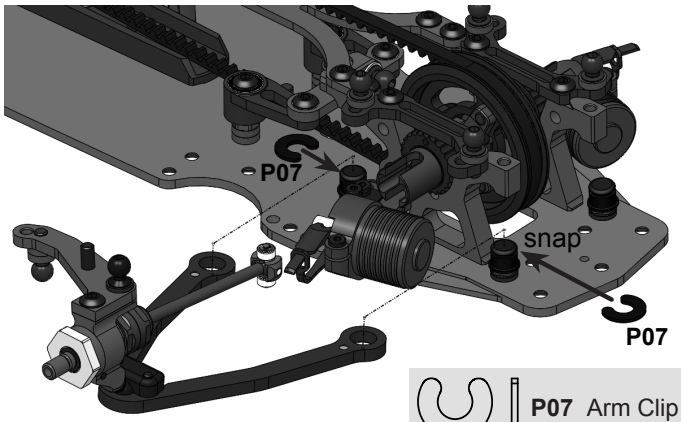
STEP 21





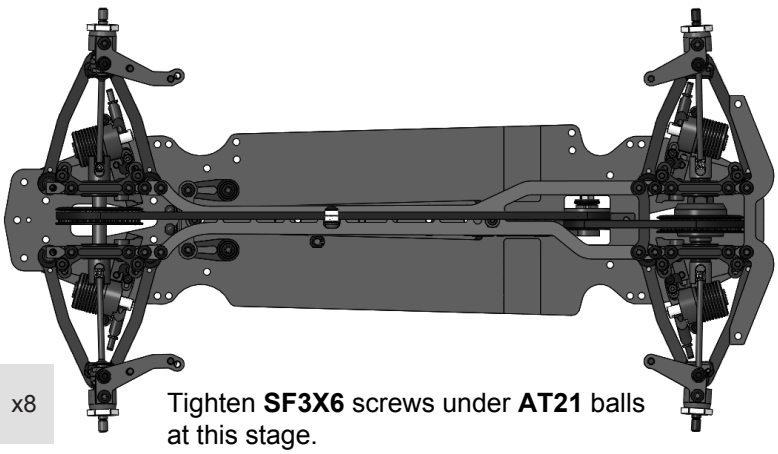
SH1.0 6x3x1mm Spacer (Gray) x4
SH1.75 6x3x1.75mm Spacer (Black) x12
ST24 4,8x6mm Ball Stud x8

STEP 22



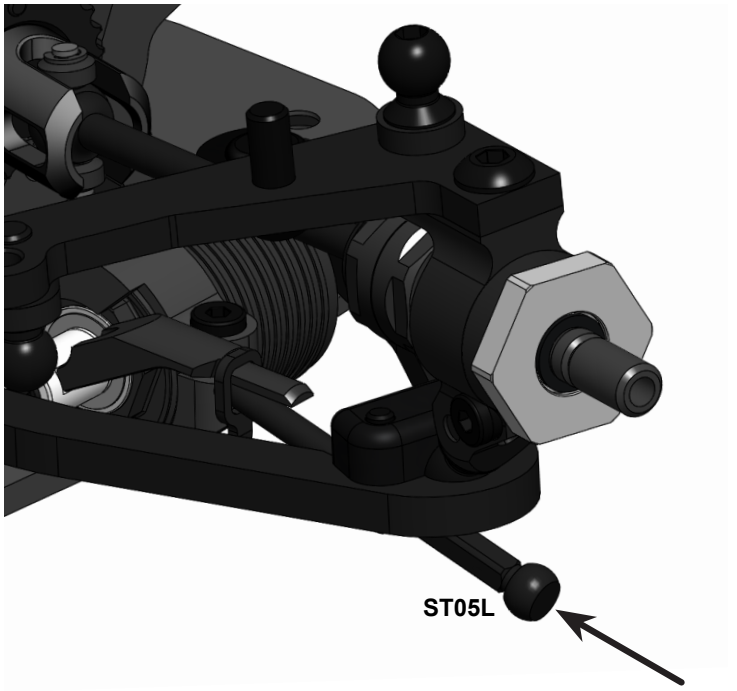
P07 Arm Clip x8

STEP 22 FINISHED

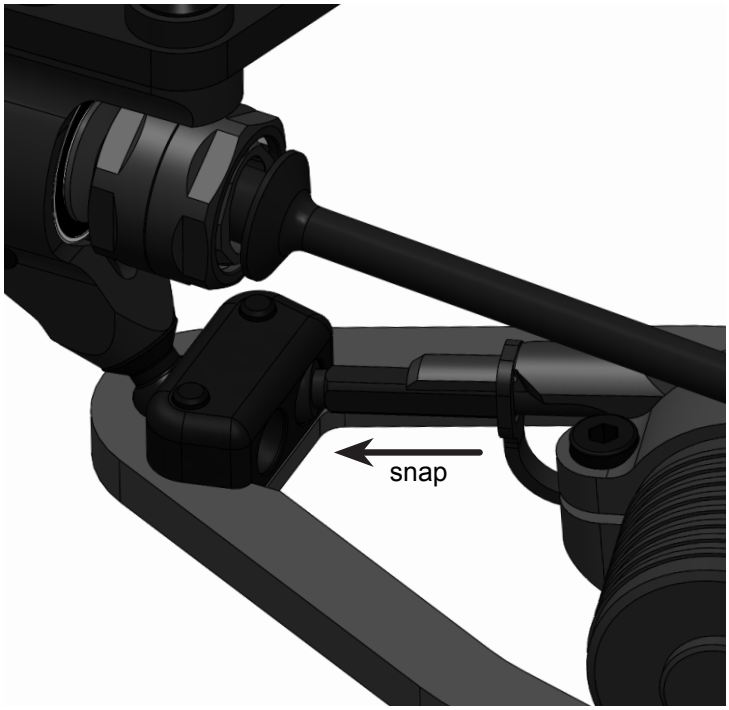


Tighten **SF3X6** screws under **AT21** balls at this stage.

STEP 23

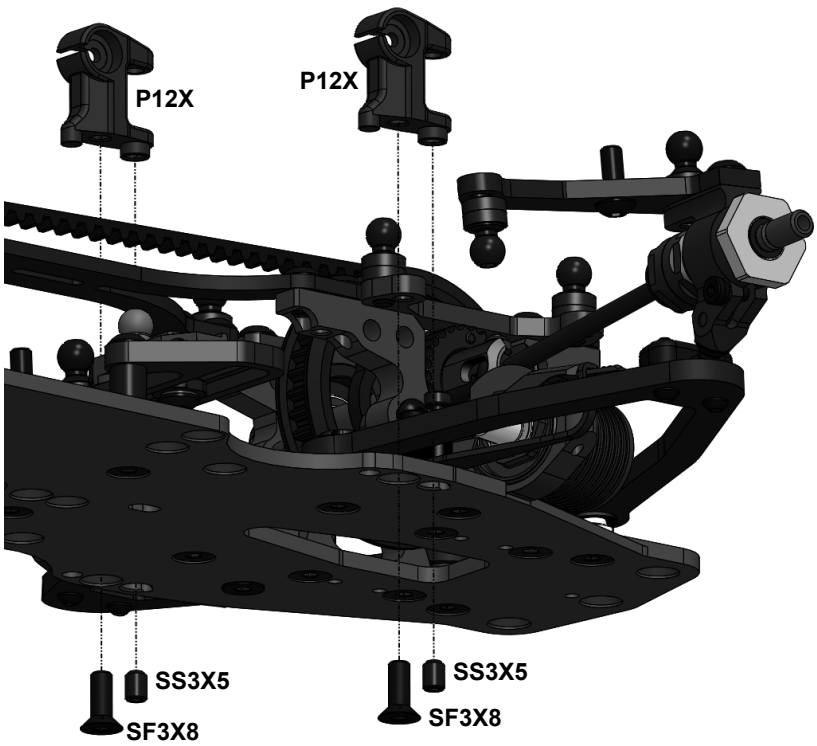


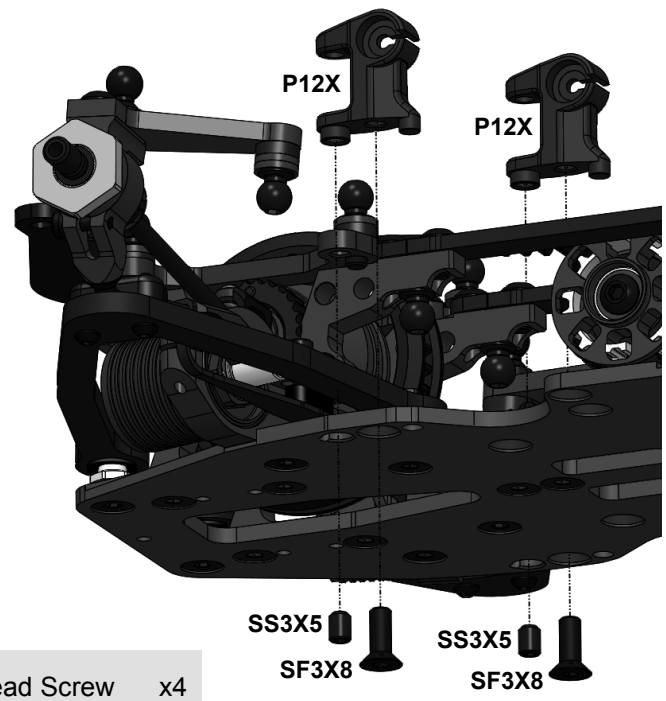
STEP 23 FINISHED



ST05L Shock Rod x4

STEP 24



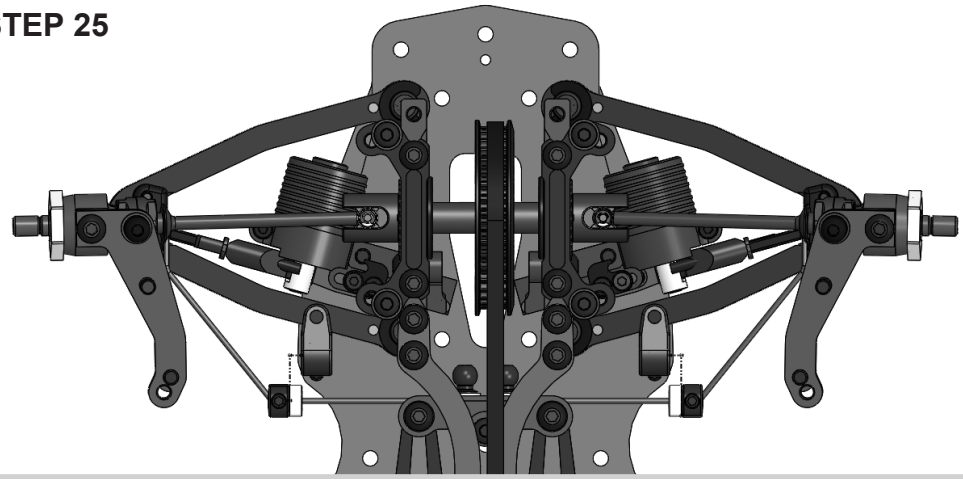


SF3X8 M3x8 Flat head Screw x4

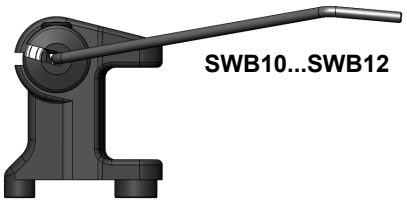
SS3X5 M3x5 Set Screw x4

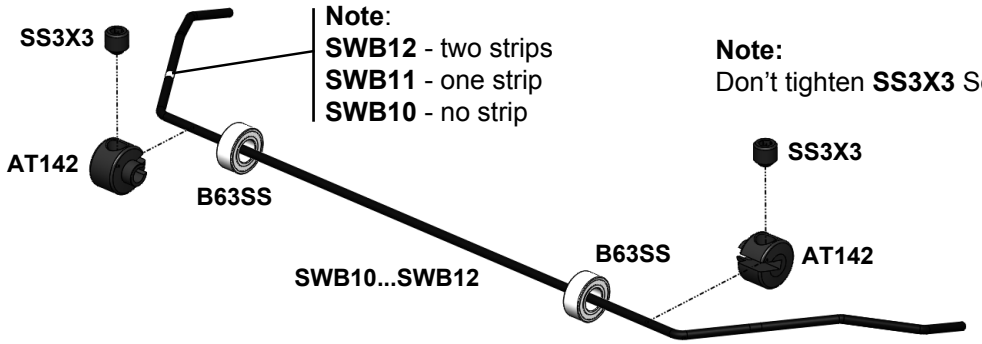
P12X Sway Bar Holder x4

STEP 25



Attention!
The deflected tips of Sway Bar should be directed downwards.



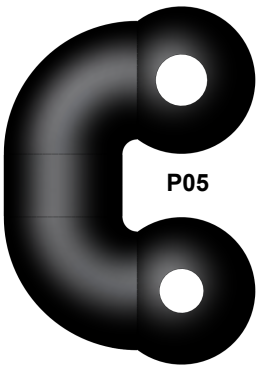


Note:
SWB12 - two strips
SWB11 - one strip
SWB10 - no strip

Note:
Don't tighten **SS3X3** Set Screws at this stage.

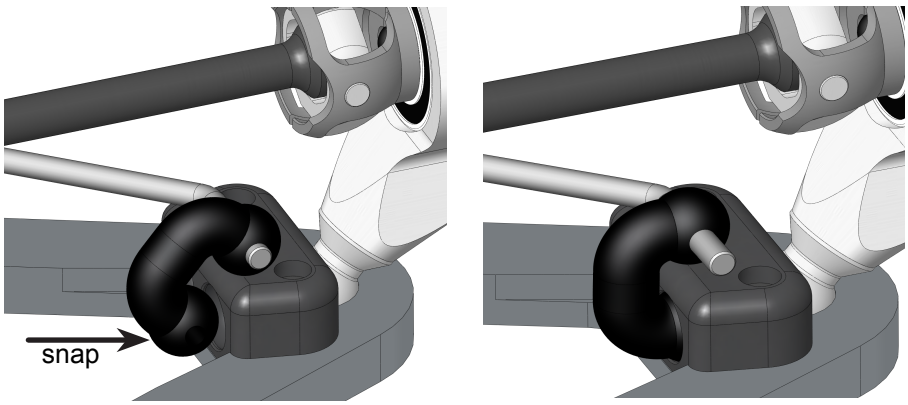
SS3X3 M3x3 Set Screw x4
B63SS MR63ZZ Bearing x4
SWB10....SWB12 Sway Bar x2
P05 Sway Bar Joint x4
AT142 Sway Bar Stopper x4

STEP 25 (cont'd)



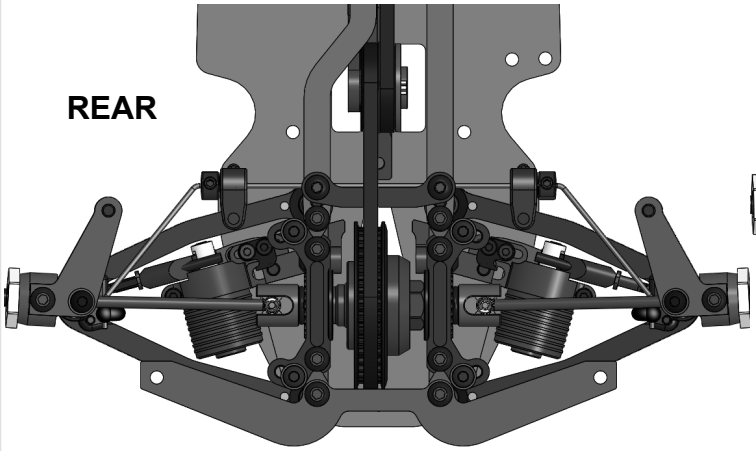
Use bigger hole for **SB12** Sway Bars.

Use smaller hole for **SB10** and **SB11** Sway Bars.

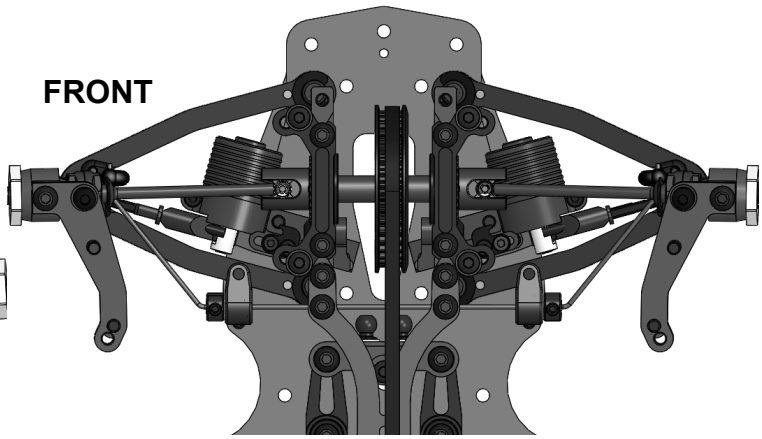


STEP 25 FINISHED

REAR

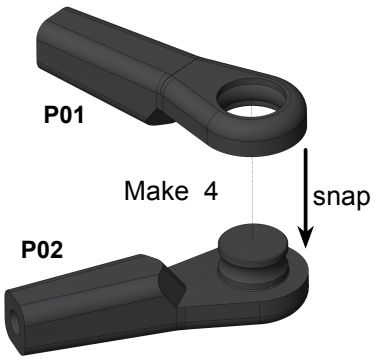


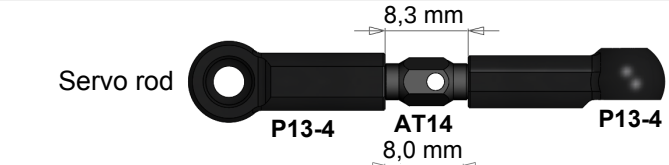
FRONT

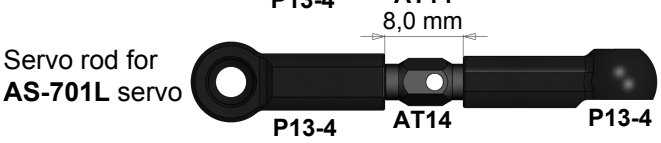


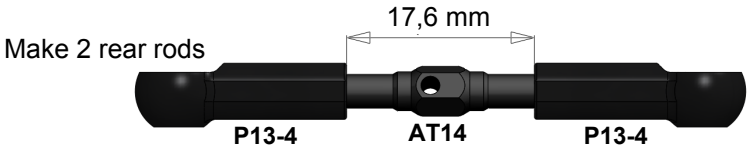
Adjust **AT142** Stoppers disposal to reach the centered position of the Sway Bars and tighten **SS3X3** Set Screws after that.

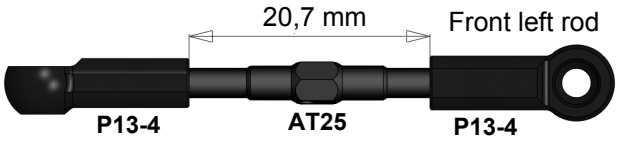
STEP 26

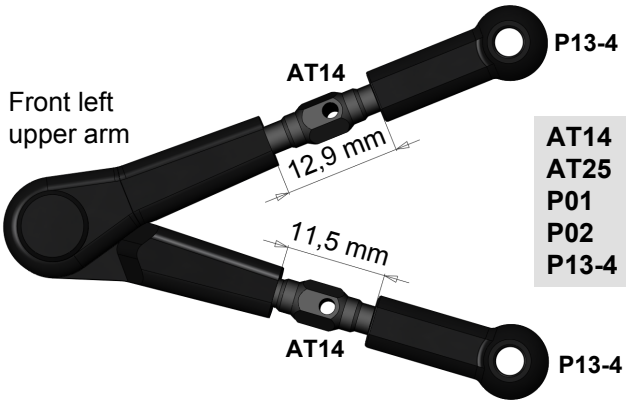




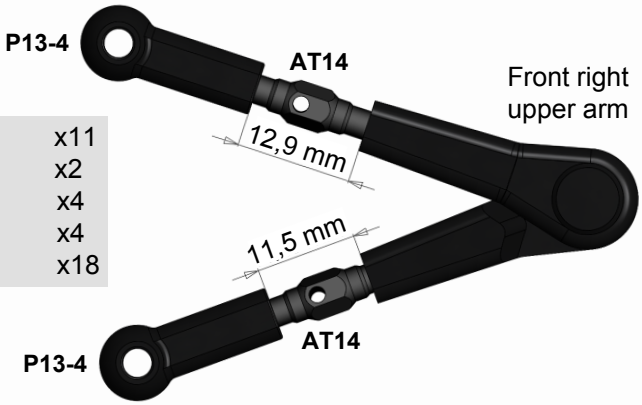


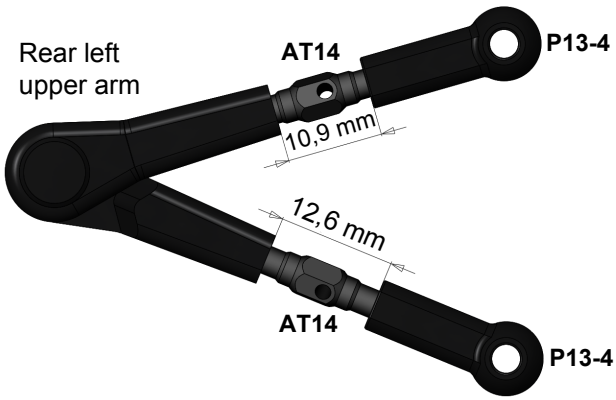


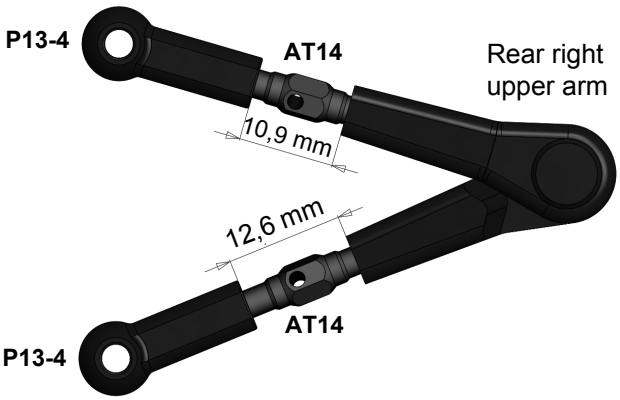




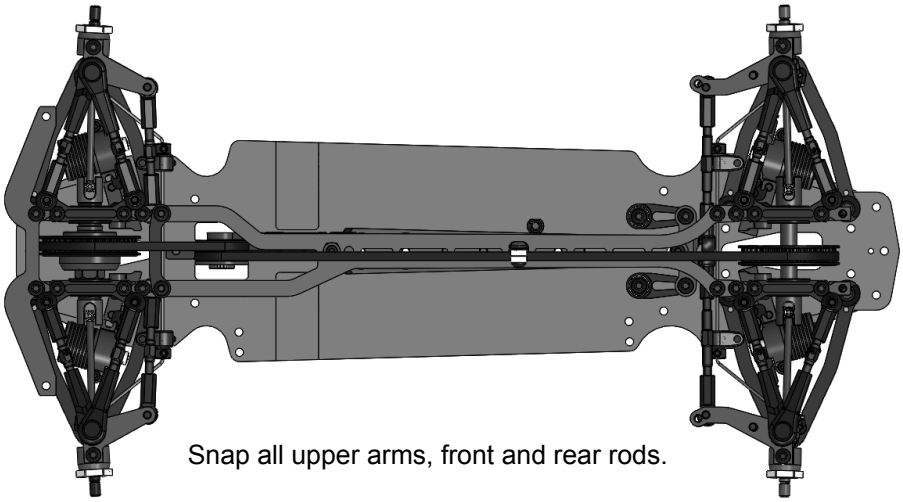
AT14	Turnbuckle	x11
AT25	Turnbuckle	x2
P01	Ball Joint 1	x4
P02	Ball Joint 2	x4
P13-4	Ball End	x18





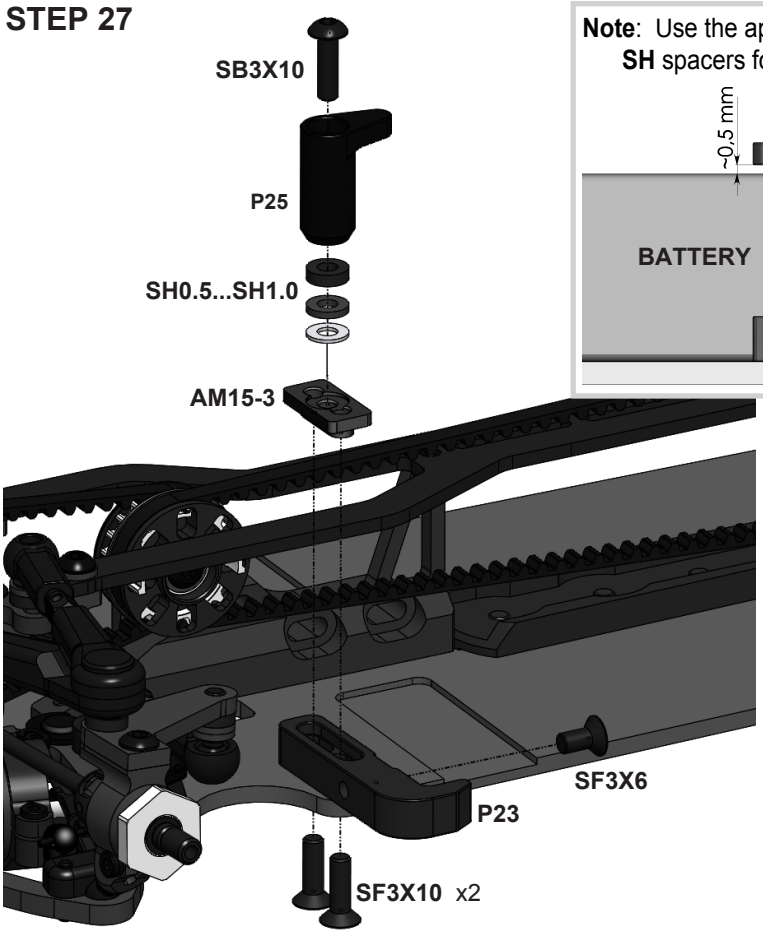


Notes: The given rods and arms sizes are approximately for 4° front caster and - 4° rear caster, 2° both front and rear cambers, 2,5° rear toe-in and 1° front toe out angles. Use a setup station or angles gauge for further precise suspension geometry setting. See our recommendations on page #23 for quick and easy suspension geometry change.

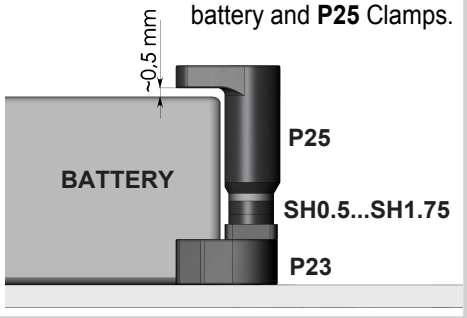


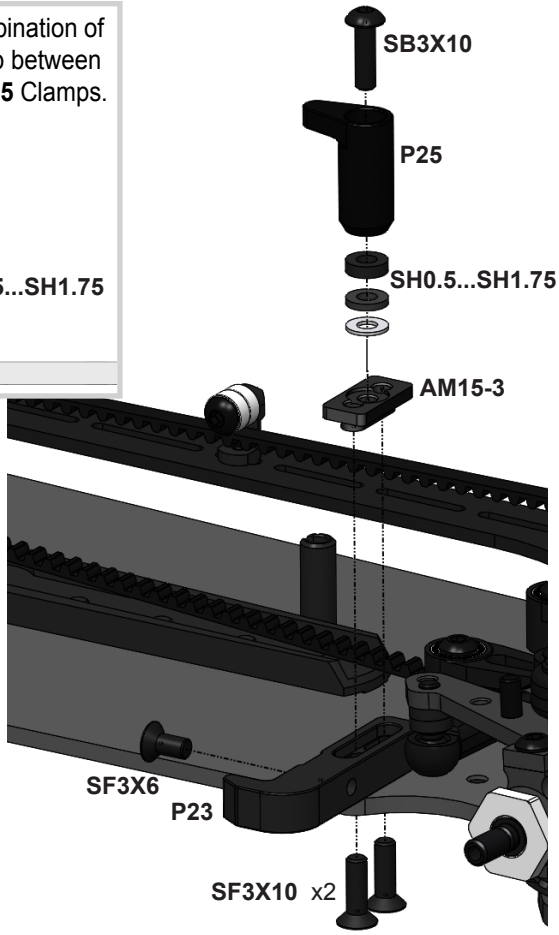
Snap all upper arms, front and rear rods.

STEP 27



Note: Use the appropriate combination of **SH** spacers for sufficient gap between battery and **P25** Clamps.





Battery Holders adjustment:

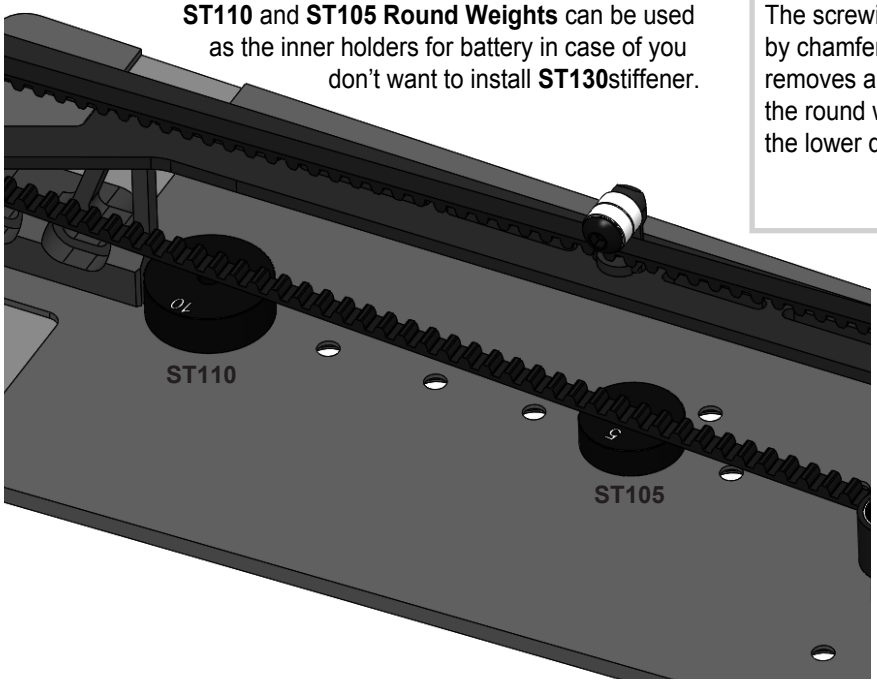
Choose the desirable battery position.

Tighten up **SF3X10** screws to fix **P23** Battery Holders.

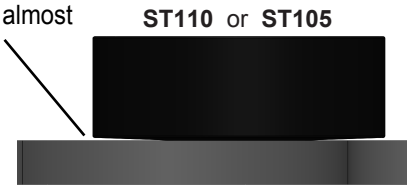
Adjust **SF3X6** screws to achieve ~0.5mm clearance between them and the battery.

SF3X10 M3x10 Flat Head Screw	x4	**P23** Outer Battery Holder	x2
SF3X6 M3x6 Flat Head Screw	x2	**P25** Battery Clamp	x2
SB3X10 M3x10 Button Head Screw	x2	**AM15-3** Battery Nut	x2
		SH0.5 SH1.0 SH1.75 Spacers	

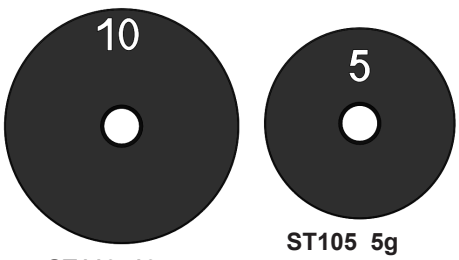
ST110 and **ST105 Round Weights** can be used as the inner holders for battery in case of you don't want to install **ST130**stiffener.



The screwing of **ST110** and **ST105** by chamfered side down almost removes an influence of the round weights on the lower deck flex.



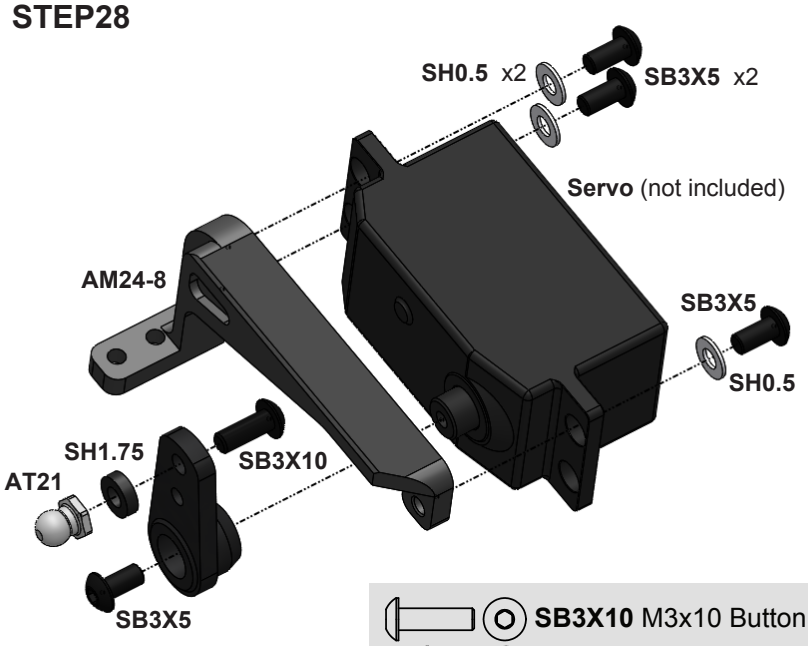
The engraved sides of **ST110** and **ST105** are flat. The opposite sides are chamfered.

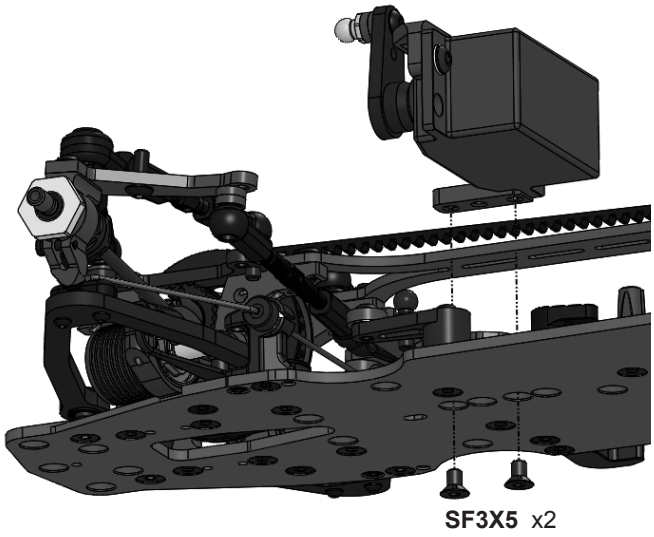


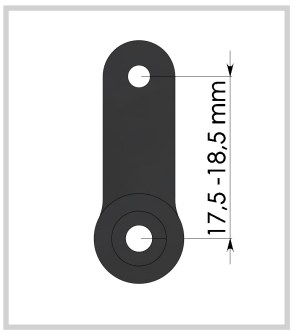
ST110 10g Round Weight

ST105 5g Round Weight

STEP28



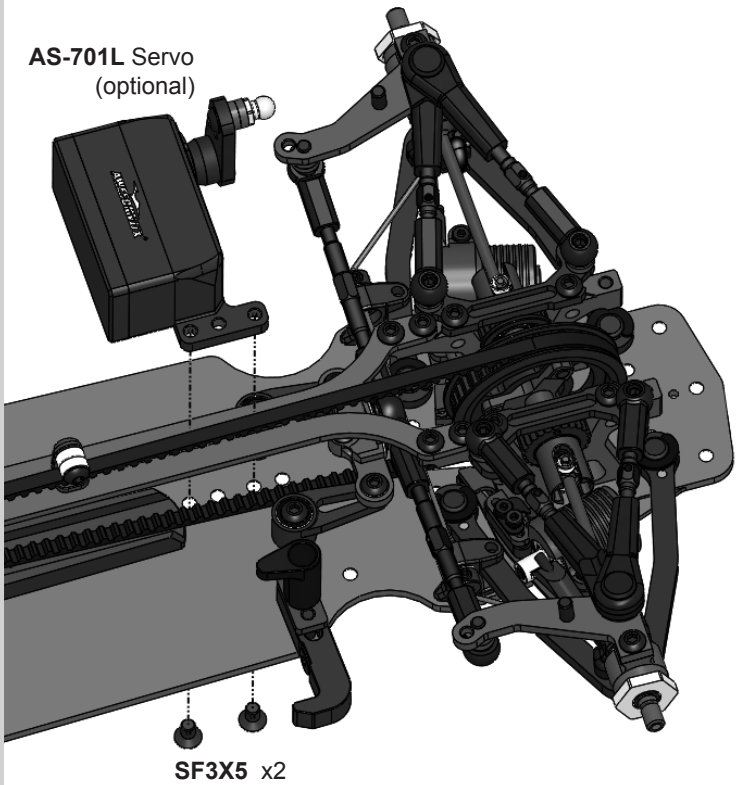




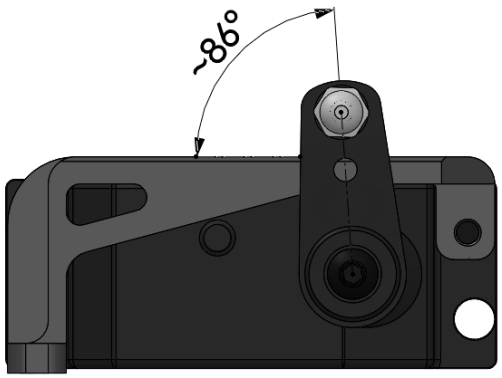
SB3X10 M3x10 Button Head Screw	x1		
SF3X5 M3x5 Flat Head Screw	x2		
SB3X5 M3x5 Button Head Screw	x4	**AT21** Pivot Ball	x1
SH0.5 6x3x0.5mm Spacer (Silver)	x3	**AM24-8** Servo Holder	x1
SH1.75 6x3x1.75mm Spacer (Black)	x1		

Note: Recommended length of servo arm is 17,5-18,5mm. We highly recommend our **P40F** and **P40K** Servo Arms. We also recommend our **AS-701L** Brushless Low-Profile Car Servo. Awesomatix **AS-701L** servo has an integrated servo holder and can be screwed to the chassis. directly.

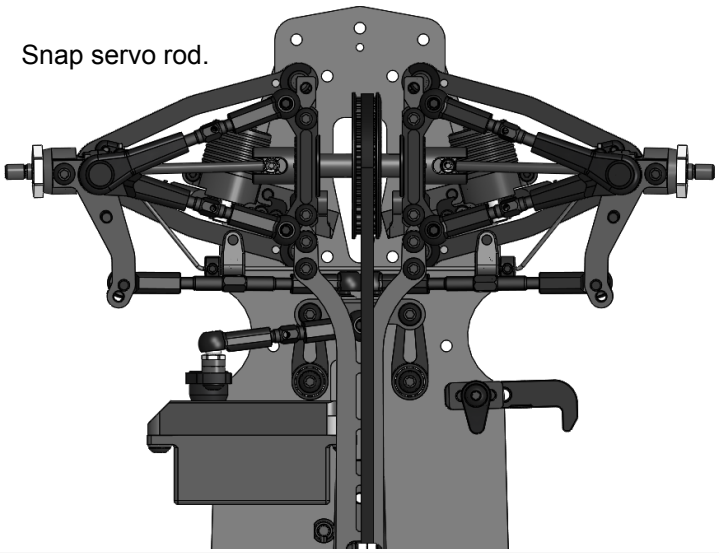
Awesomatix **AS-701L** servo installation.



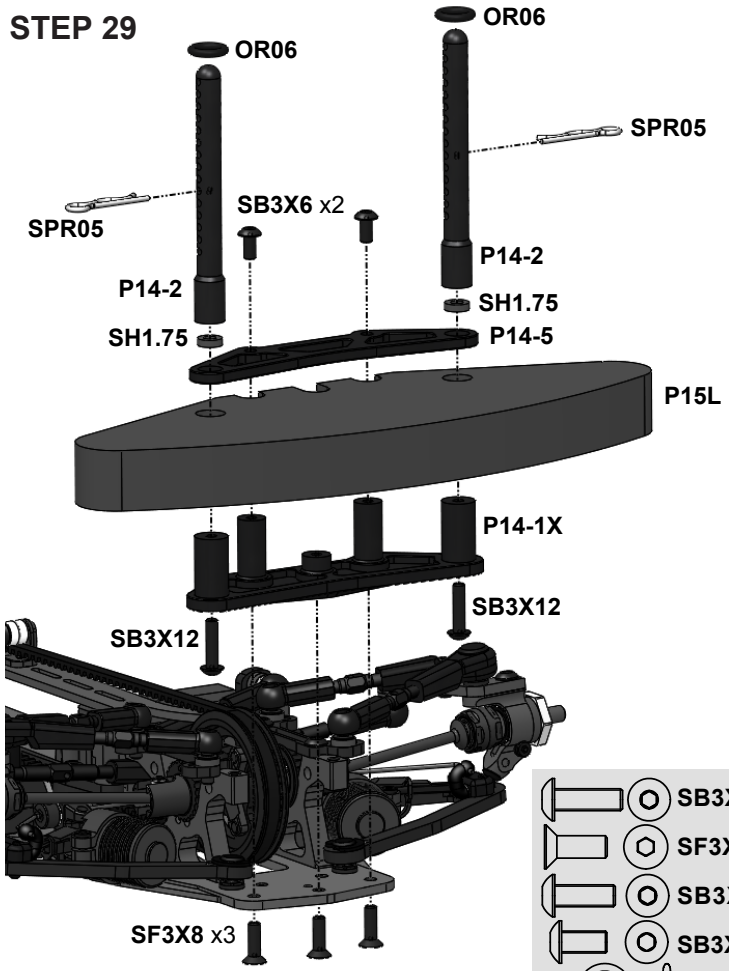
Attention! Neutral servo arm position.

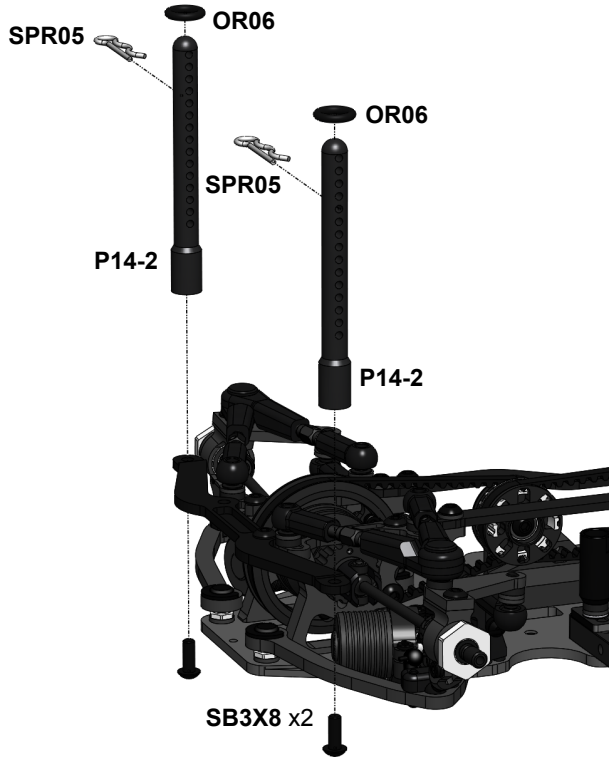


Snap servo rod.



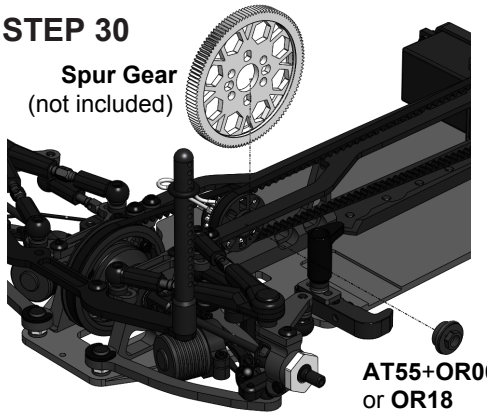
STEP 29



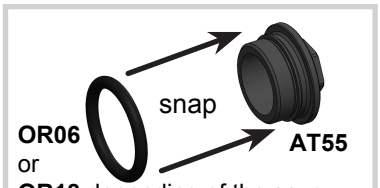


SB3X12 M3x12 Button Head Screw x2	**P14-1X** Lower Bumper x1
SF3X8 M3x8 Flat Head Screw x3	**P14-2** Body Post x4
SB3X8 M3x8Button Head Screw x2	**P14-5** UpperBumper x1
SB3X6 M3x6 Button Head Screw x2	**P15L** Foam Bumper x1
OR06 5mm O-Ring x4	**SPR05** Body Clip x4

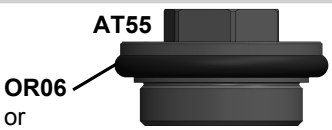
STEP 30



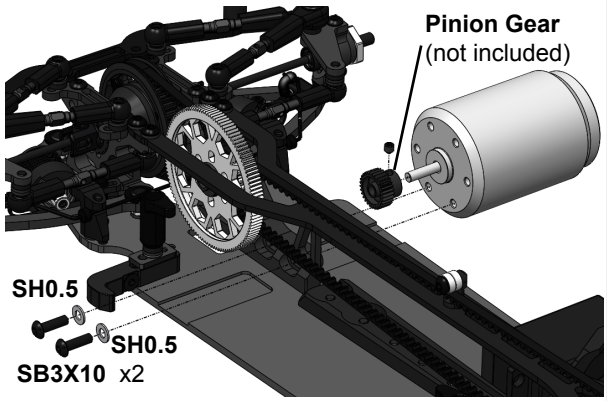
Attention! Please use **≤4,5mm** thick spur gears with **2-2,6**mm thickness of the center area.



OR18 depending of the spur gear thickness



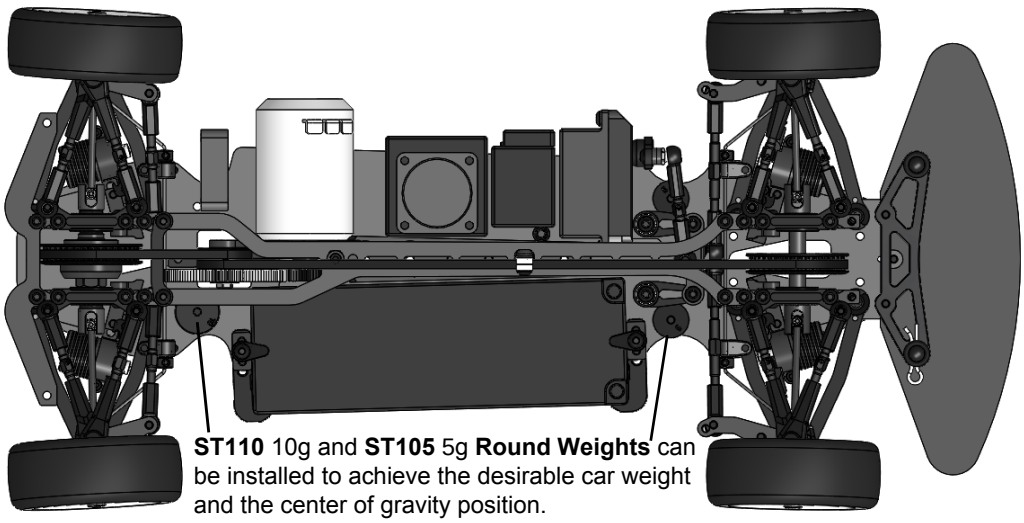
OR18 depending of the spur gear thickness



Attention! Please use pinion gears with thickness of the teethed area **≤4,5mm**.

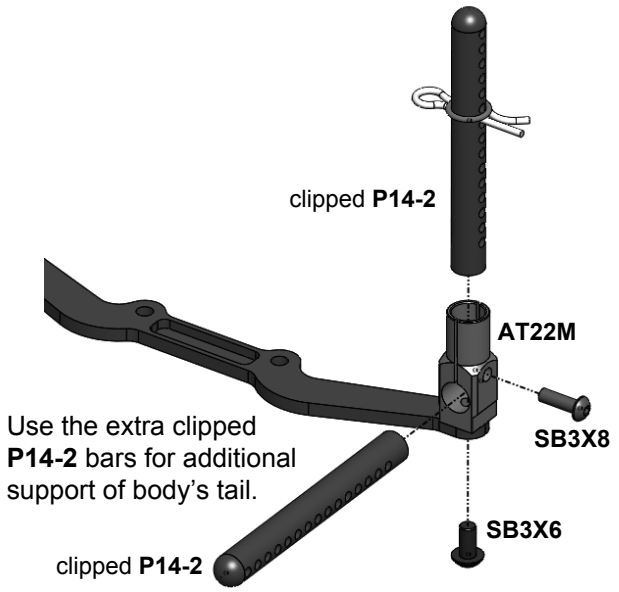
STEP 31
FINAL ASSEMBLY

Install:
Speed controller (not included),
Receiver (not included),
Battery (not included)
Wheels (not included)



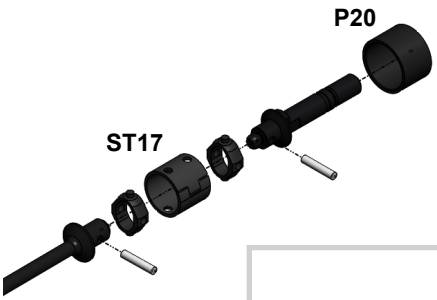
ST110 10g and **ST105** 5g **Round Weights** can be installed to achieve the desirable car weight and the center of gravity position.

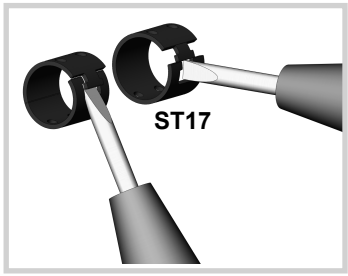
AT22M Rear Body Holder (optional)

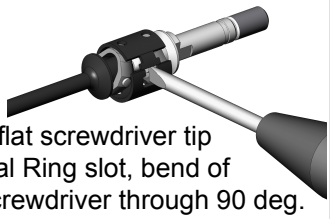


Use the extra clipped **P14-2** bars for additional support of body's tail.

ST17 and P20 Universal Rings (optional)



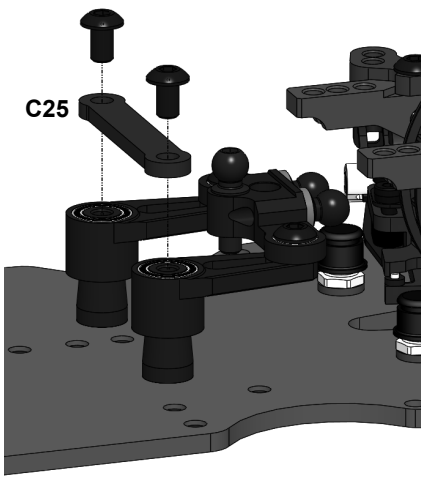




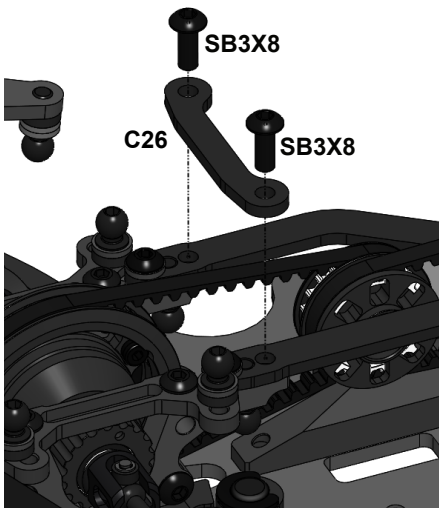
1. Insert a 2.5mm flat screwdriver tip into **ST17** Universal Ring slot, bend of the lug and turn screwdriver through 90 deg.
2. Take out/insert **ST16** U-Joint Cross from/ into unclamped **ST17** Universal Ring.

Bellcrank Steering (optional)

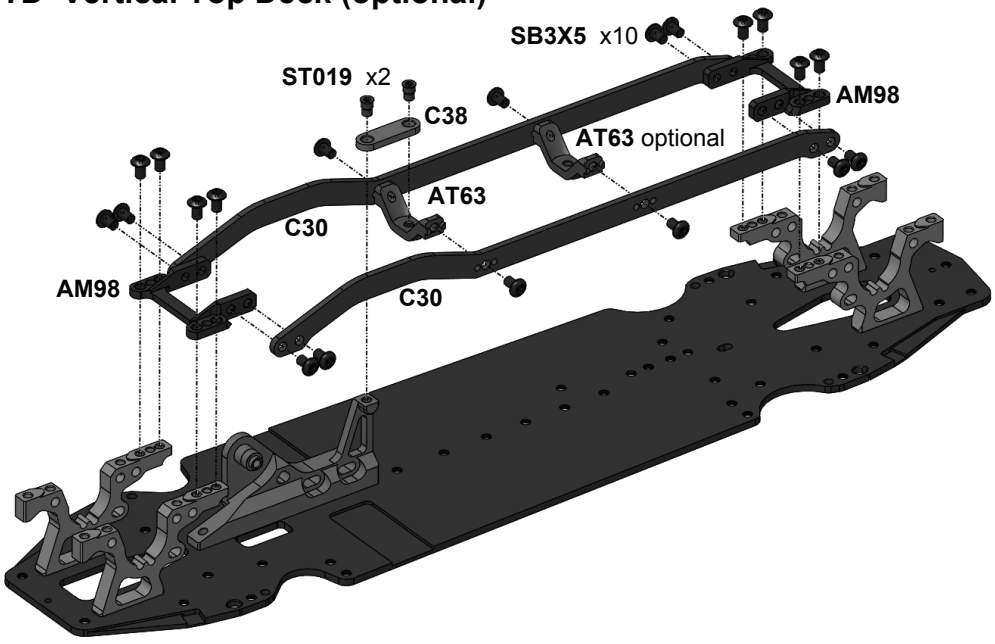
C25 Steering Stiffener (optional)



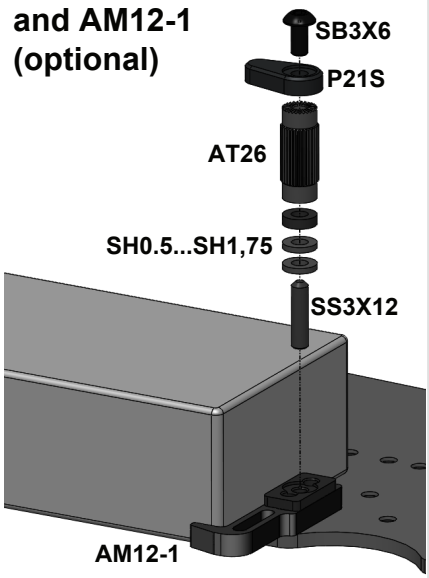
Additional C26 Top Stiffener (optional)



VTD Vertical Top Deck (optional)

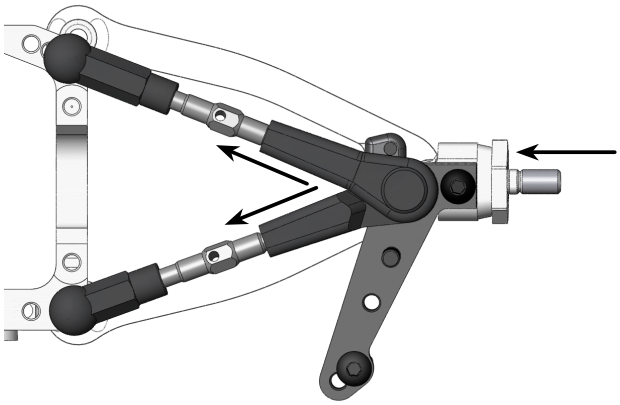


BC1 Battery Clamp Set and AM12-1 (optional)

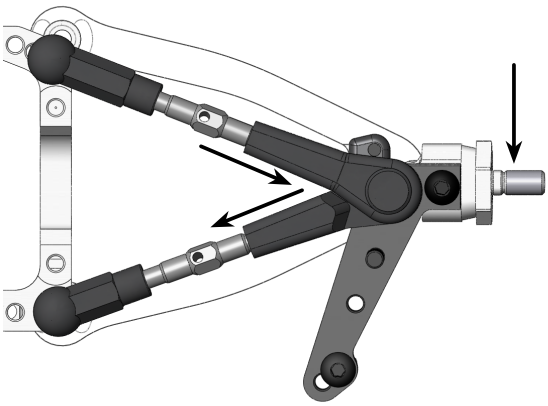


SUSPENSION SETTING TECHNIQUE

Camber adjustment rule: Simultaneous both upper rods 0.5mm shortening (1/2 turn of both turnbuckles) adds 1.0° of camber angle at constant caster.

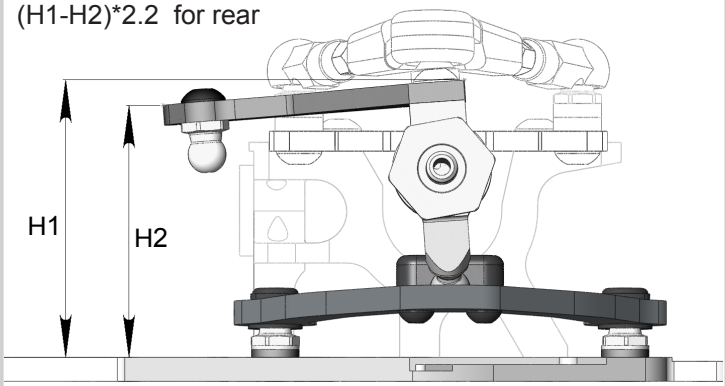


Caster adjustment rule: Simultaneous front upper rod 0.5mm elongation and rear upper rod 0.5mm shortening adds 2.5° of caster at constant camber.

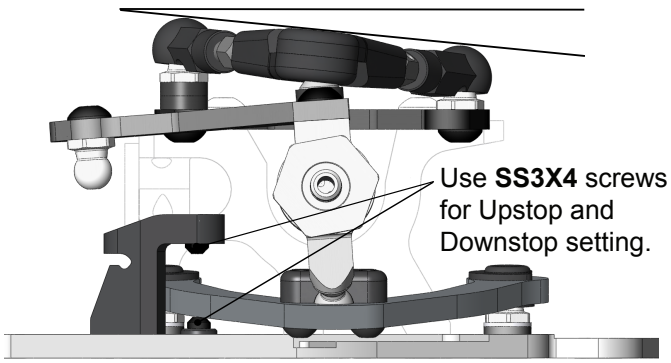


Caster measuring:

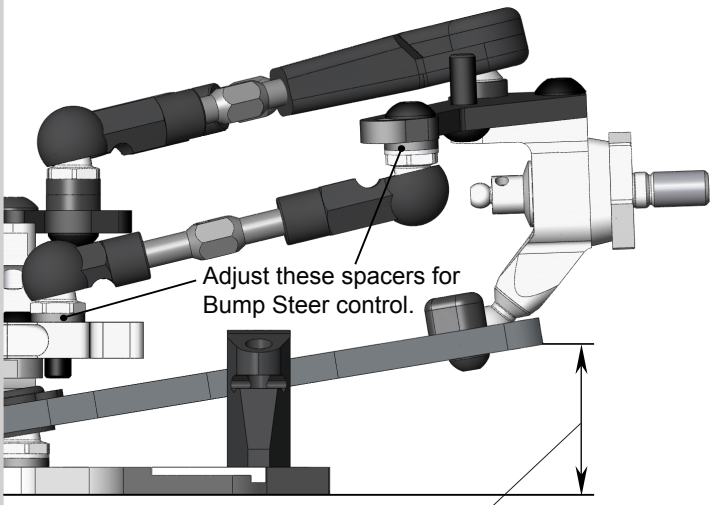
Caster angle° =
(H1-H2)*1.5 for front
(H1-H2)*2.2 for rear



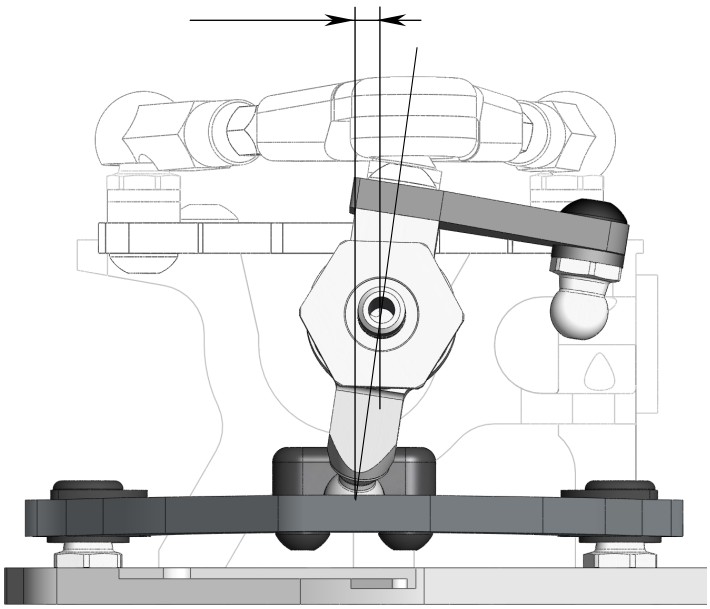
Reactive Caster setting is possible.



Roll Center adjustment:
Use combinations of **SH0.5, SH1.0** and **SH1.75** Spacers under appropriate Pivot Balls and Ball Studs for this adjustment.

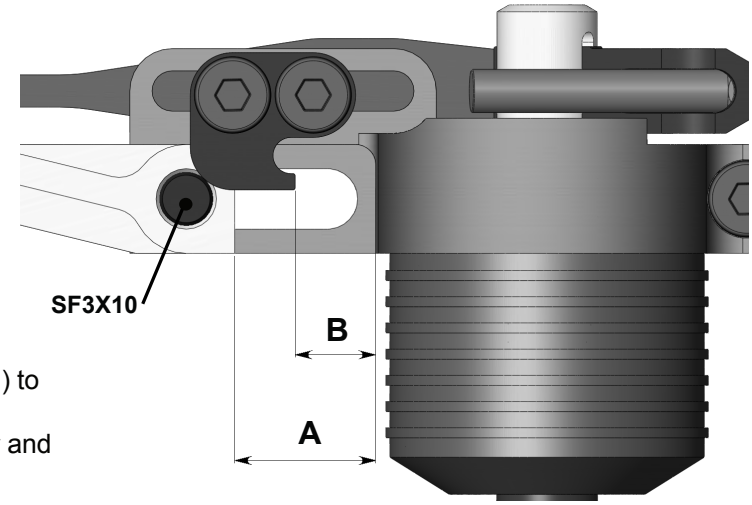


Wheelbase adjustment:
Use rear suspension caster change for this adjustment.
Adding 4°caster shortens wheelbase by 1mm.



SHOCK SETTING TECHNIQUE

Attention! These Shocks allow to adjust the Damping and Spring rates without replacement of the shock's fluid and spring.



1. Damping and Shock Spring rate setting

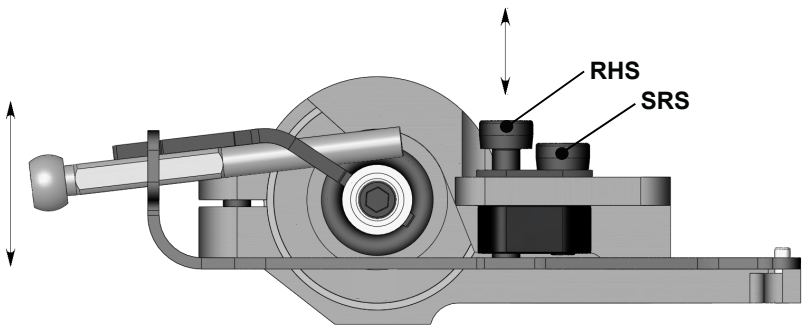
Increase **A**-distance (slide Shock outward) to increase Damping and Spring rates simultaneously and concordantly to each other. **A**-distance range is 0 - 4.4mm.
Use outer **SF3X10** Flat Head Screw to unlock Shock and to lock it at desirable position.
Decrease **B** distance (slide **P09** Shock Screw Holder outward) to increase Spring rate only at the fixed Damping rate value.
Use **SRS** Spring Rating Screw to unlock Shock Screw Holder and to lock it at desirable position.

2. Shock Spring preload setting

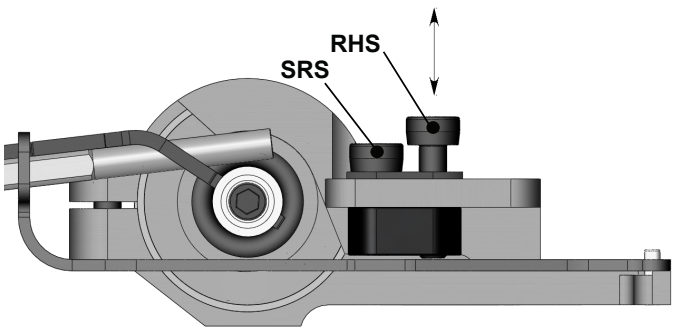
Turn IN (CW) **RHS** Screw to increase spring preload.
Turn OUT (CCW) **RHS** Screw to decrease spring preload.
Use Spring preload setting to adjust Ride Height value.

3. SRS/RHS Screws arrangements change

The reverse arrangement of these screws is possible also.

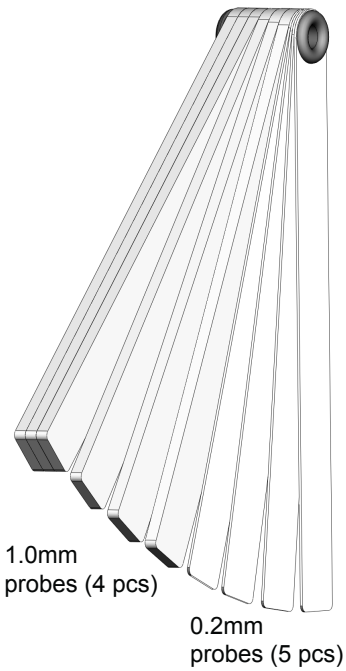


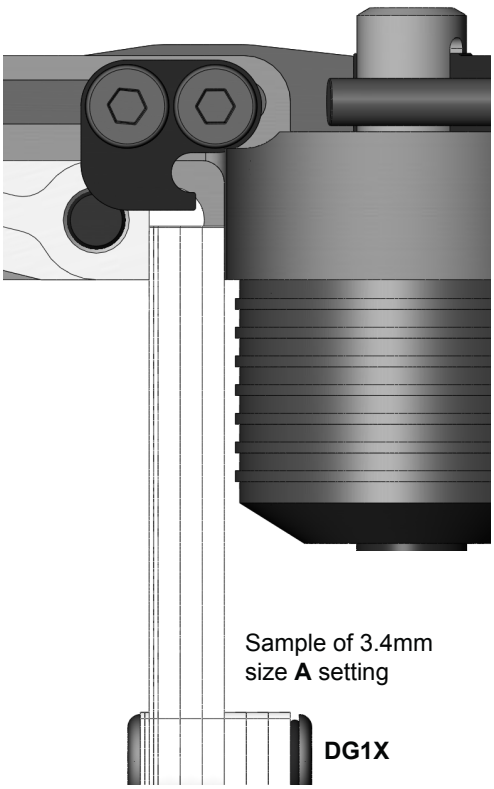
SRS/RHS Screws arrangement Ⅰ

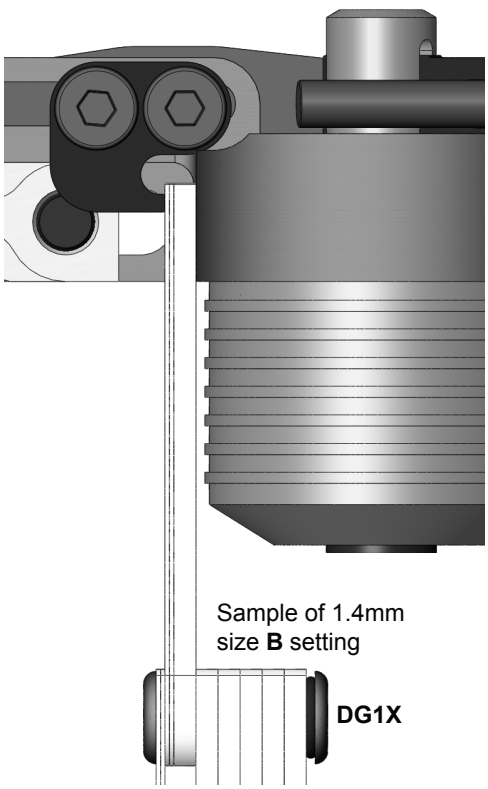


SRS/RHS Screws arrangement Ⅱ

4. Using of DG1X Damper Gauge

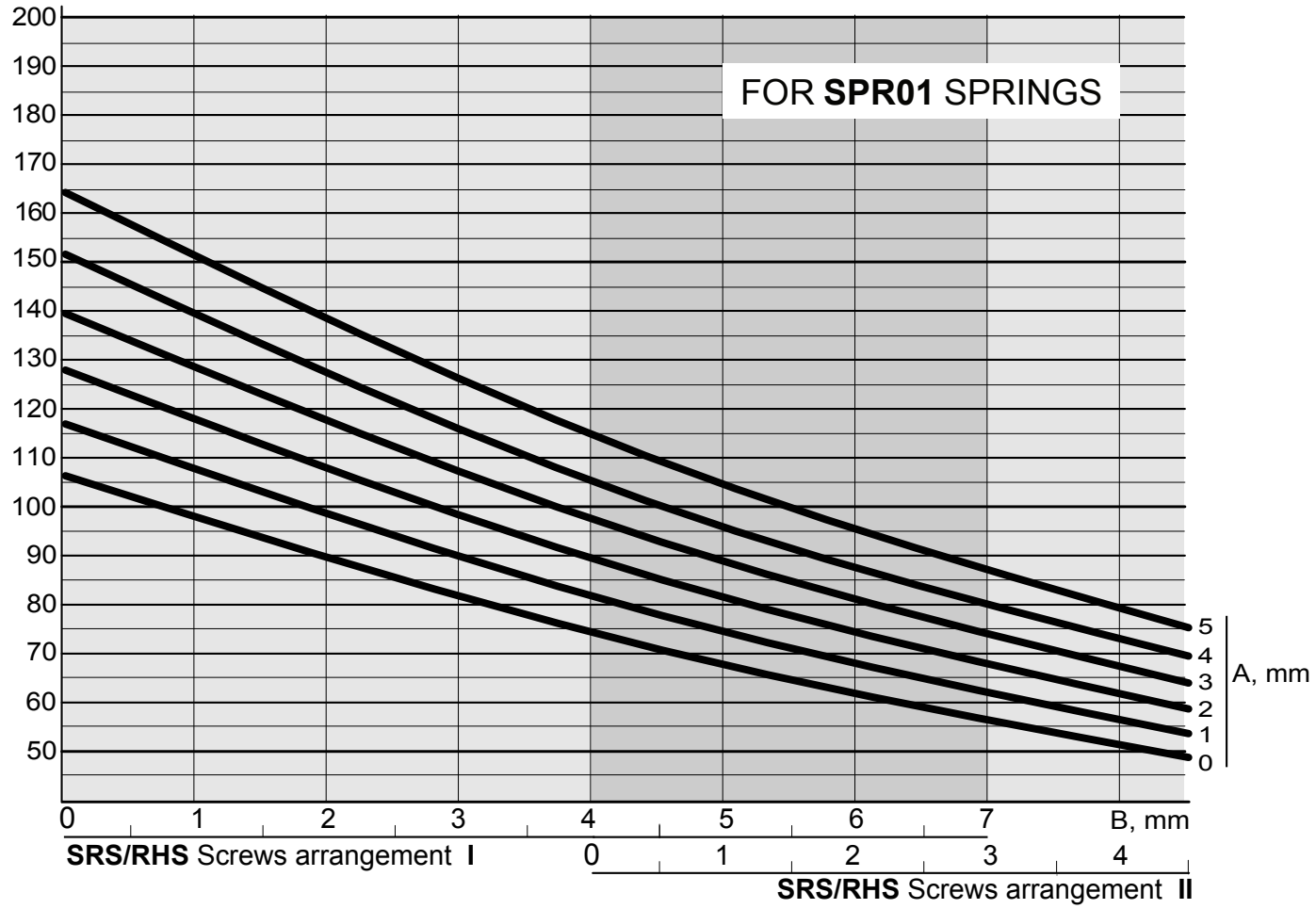


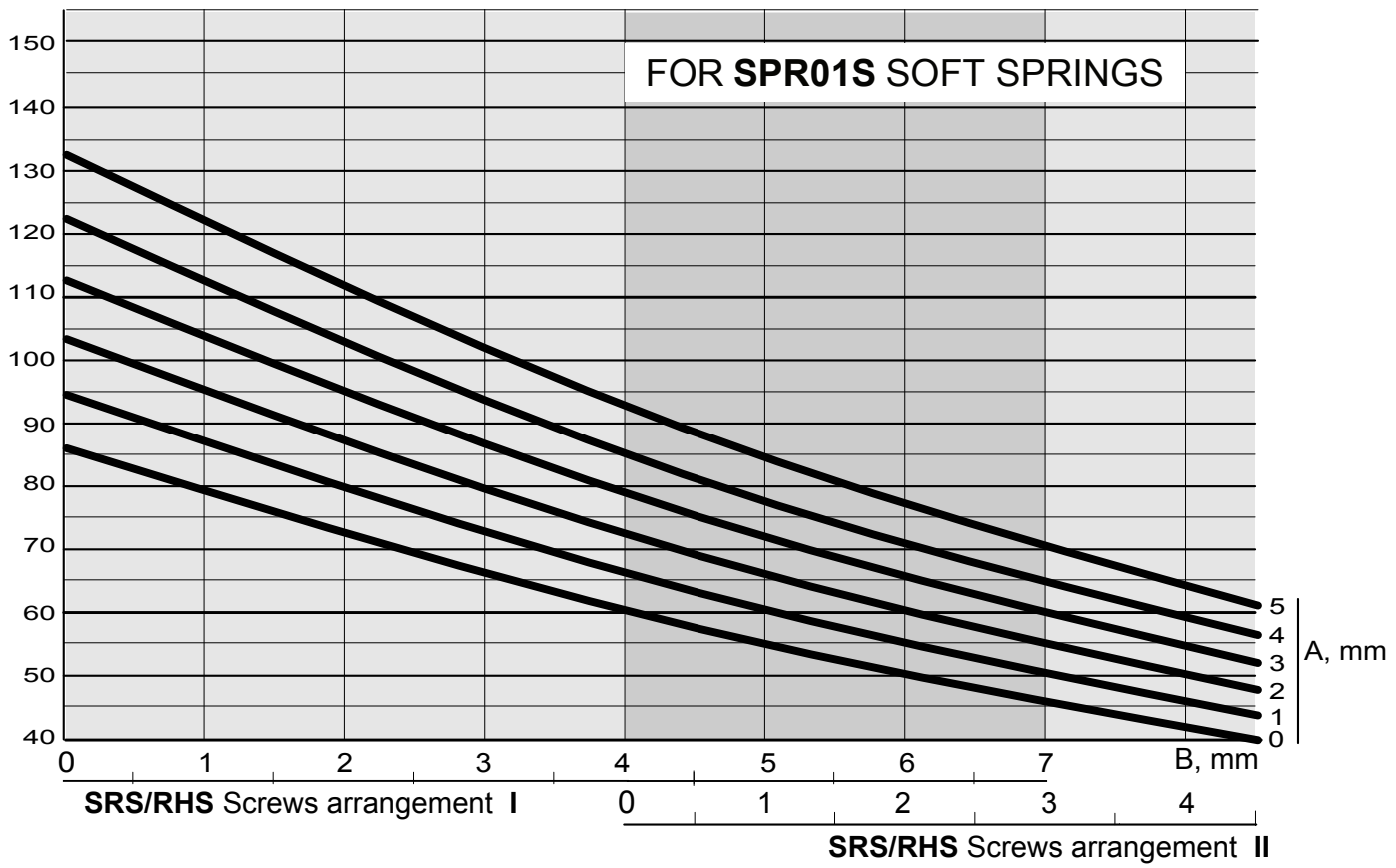




GRAPHS OF THE SUSPENSION STIFFNESS DEPENDING ON THE POSITION OF THE DAMPER (SIZE A) AND SHOCK SCREW HOLDER (SIZE B)

Suspension rate, gF/mm (vertical force / vertical displacement of the wheel)





FINAL DRIVE RATIO CHART

DRIVE TRAIN RATIO IS 1,9

64dp SPUR GEAR SIZE

64dp PINION GEAR SIZE

1,9	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116
19																																					11,60
20																																				10,93	11,02
21																																			10,31	10,40	10,50
22																																		9,76	9,85	9,93	10,02
23																																	9,25	9,33	9,42	9,50	9,58
24																																8,79	8,87	8,95	9,03	9,10	9,18
25																															8,36	8,44	8,51	8,59	8,66	8,74	8,82
26																														7,97	8,04	8,11	8,18	8,26	8,33	8,40	8,48
27																													7,60	7,67	7,74	7,81	7,88	7,95	8,02	8,09	8,16
28																												7,26	7,33	7,40	7,46	7,53	7,60	7,67	7,74	7,80	7,87
29																											6,94	7,01	7,08	7,14	7,21	7,27	7,34	7,40	7,47	7,53	7,60
30																										6,65	6,71	6,78	6,84	6,90	6,97	7,03	7,09	7,16	7,22	7,28	7,35
31																									6,37	6,44	6,50	6,56	6,62	6,68	6,74	6,80	6,86	6,93	6,99	7,05	7,11
32																								6,12	6,18	6,23	6,29	6,35	6,41	6,47	6,53	6,59	6,65	6,71	6,77	6,83	6,89
33																							5,87	5,93	5,99	6,05	6,10	6,16	6,22	6,28	6,33	6,39	6,45	6,51	6,56	6,62	6,68
34																						5,64	5,70	5,76	5,81	5,87	5,92	5,98	6,04	6,09	6,15	6,20	6,26	6,31	6,37	6,43	6,48
35																					5,43	5,48	5,54	5,59	5,65	5,70	5,75	5,81	5,86	5,92	5,97	6,03	6,08	6,13	6,19	6,24	6,30
36																				5,23	5,28	5,33	5,38	5,44	5,49	5,54	5,59	5,65	5,70	5,75	5,81	5,86	5,91	5,96	6,02	6,07	6,12
37																			5,03	5,08	5,14	5,19	5,24	5,29	5,34	5,39	5,44	5,49	5,55	5,60	5,65	5,70	5,75	5,80	5,85	5,91	
38																		4,85	4,90	4,95	5,00	5,05	5,10	5,15	5,20	5,25	5,30	5,35	5,40	5,45	5,50	5,55	5,60	5,65	5,70		
39																	4,68	4,73	4,77	4,82	4,87	4,92	4,97	5,02	5,07	5,12	5,16	5,21	5,26	5,31	5,36	5,41	5,46	5,51			
40																4,51	4,56	4,61	4,66	4,70	4,75	4,80	4,85	4,89	4,94	4,99	5,04	5,08	5,13	5,18	5,23	5,27	5,32				
41															4,36	4,40	4,45	4,495	4,54	4,59	4,63	4,68	4,73	4,77	4,82	4,87	4,91	4,96	5,00	5,05	5,10	5,14					
42														4,21	4,25	4,30	4,34	4,39	4,43	4,48	4,52	4,57	4,61	4,66	4,70	4,75	4,80	4,84	4,89	4,93	4,98						
43													4,07	4,11	4,15	4,20	4,24	4,29	4,33	4,37	4,42	4,46	4,51	4,55	4,60	4,64	4,68	4,73	4,77	4,82							
44												3,93	3,97	4,02	4,06	4,10	4,15	4,19	4,23	4,28	4,32	4,36	4,40	4,45	4,49	4,53	4,58	4,62	4,66								
45											3,80	3,84	3,88	3,93	3,97	4,01	4,05	4,10	4,14	4,18	4,22	4,26	4,31	4,35	4,39	4,43	4,48	4,52									
46										3,68	3,72	3,76	3,80	3,84	3,88	3,92	3,97	4,01	4,05	4,09	4,13	4,17	4,21	4,25	4,30	4,34	4,38										
47									3,56	3,60	3,64	3,68	3,72	3,76	3,80	3,84	3,88	3,92	3,96	4,00	4,04	4,08	4,12	4,16	4,20	4,24											
48								3,44	3,48	3,52	3,56	3,60	3,64	3,68	3,72	3,76	3,80	3,84	3,88	3,92	3,96	4,00	4,04	4,08	4,12												
49							3,33	3,37	3,41	3,45	3,49	3,53	3,57	3,61	3,64	3,68	3,72	3,76	3,80	3,84	3,88	3,92	3,96	3,99													
50						3,23	3,27	3,31	3,34	3,38	3,42	3,46	3,50	3,53	3,57	3,61	3,65	3,69	3,72	3,76	3,80	3,84	3,88														
51					3,13	3,17	3,20	3,24	3,28	3,32	3,35	3,39	3,43	3,46	3,50	3,54	3,58	3,61	3,65	3,69	3,73	3,76															
52				3,03	3,07	3,11	3,14	3,18	3,22	3,25	3,29	3,33	3,36	3,40	3,43	3,47	3,51	3,54	3,58	3,62	3,65																
53			2,94	2,98	3,01	3,05	3,08	3,12	3,15	3,19	3,23	3,26	3,30	3,33	3,37	3,41	3,44	3,48	3,51	3,55																	
54		2,85	2,89	2,92	2,96	2,99	3,03	3,06	3,10	3,13	3,17	3,20	3,24	3,27	3,31	3,34	3,38	3,41	3,45																		
55	2,76	2,80	2,83	2,87	2,90	2,94	2,97	3,01	3,04	3,07	3,11	3,14	3,18	3,21	3,25	3,28	3,32	3,35																			

48dp SPUR GEAR

48dp PINION GEAR SIZE

1,9	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87
14																												11,81
15																											10,89	11,02
16																										10,09	10,21	10,33
17																									9,39	9,50	9,61	9,72
18																								8,76	8,87	8,97	9,08	9,18
19																							8,20	8,30	8,40	8,50	8,60	8,70
20																						7,70	7,79	7,89	7,98	8,08	8,17	8,27
21																					7,24	7,33	7,42	7,51	7,60	7,69	7,78	7,87
22																				6,82	6,91	7,00	7,08	7,17	7,25	7,34	7,43	7,51
23																			6,44	6,53	6,61	6,69	6,77	6,86	6,94	7,02	7,10	7,19
24																		6,10	6,18	6,25	6,33	6,41	6,49	6,57	6,65	6,73	6,81	6,89
25																	5,78	5,85	5,93	6,00	6,08	6,16	6,23	6,31	6,38	6,46	6,54	6,61
26																5,48	5,55	5,63	5,70	5,77	5,85	5,92	5,99	6,07	6,14	6,21	6,28	6,36
27															5,21	5,28	5,35	5,42	5,49	5,56	5,63	5,70	5,77	5,84	5,91	5,98	6,05	6,12
28														4,95	5,02	5,09	5,16	5,23	5,29	5,36	5,43	5,50	5,56	5,63	5,70	5,77	5,84	
29													4,72	4,78	4,85	4,91	4,98	5,04	5,11	5,18	5,24	5,31	5,37	5,44	5,50	5,57		
30												4,497	4,56	4,62	4,69	4,75	4,81	4,88	4,94	5,00	5,07	5,13	5,19	5,26	5,32			
31											4,29	4,35	4,41	4,47	4,54	4,60	4,66	4,72	4,78	4,84	4,90	4,96	5,03	5,09				
32										4,10	4,16	4,22	4,28	4,33	4,39	4,45	4,51	4,57	4,63	4,69	4,75	4,81	4,87					
33									3,92	3,97	4,03	4,09	4,15	4,20	4,26	4,32	4,38	4,43	4,49	4,55	4,61	4,66						
34								3,74	3,80	3,86	3,91	3,97	4,02	4,08	4,14	4,19	4,25	4,30	4,36	4,41	4,47							
35							3,58	3,64	3,69	3,75	3,80	3,85	3,91	3,96	4,02	4,07	4,13	4,18	4,23	4,29								
36						3,43	3,48	3,54	3,59	3,64	3,69	3,75	3,80	3,85	3,91	3,96	4,01	4,06	4,12									
37					3,29	3,34	3,39	3,44	3,49	3,54	3,59	3,65	3,70	3,75	3,80	3,85	3,90	3,95										
38				3,15	3,20	3,25	3,30	3,35	3,40	3,45	3,50	3,55	3,60	3,65	3,70	3,75	3,80											
39			3,02	3,07	3,12	3,17	3,22	3,26	3,31	3,36	3,41	3,46	3,51	3,56	3,61	3,65												
40		2,90	2,95	2,99	3,04	3,09	3,14	3,18	3,23	3,28	3,33	3,37	3,42	3,47	3,52													
41	2,78	2,83	2,87	2,92	2,97	3,01	3,06	3,10	3,15	3,20	3,24	3,29	3,34	3,38														

AWESOMATIX A800X EVO

SETUP SHEET

NAME

COUNTRY

RACE

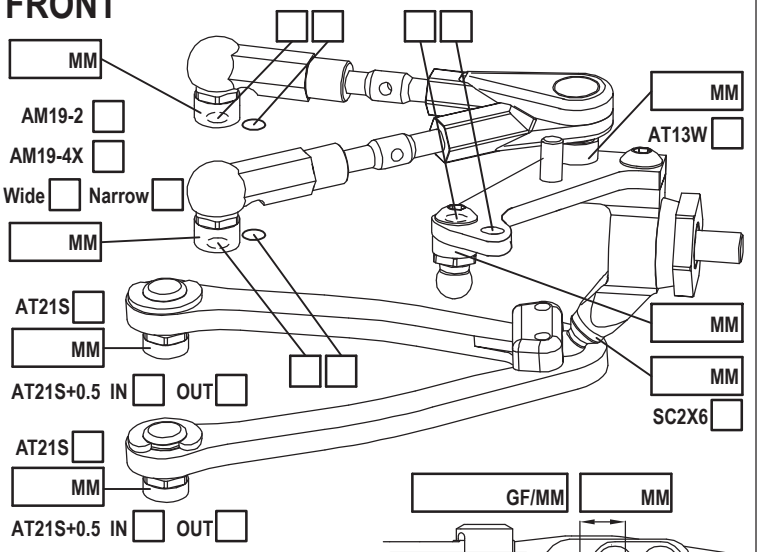
TRACK

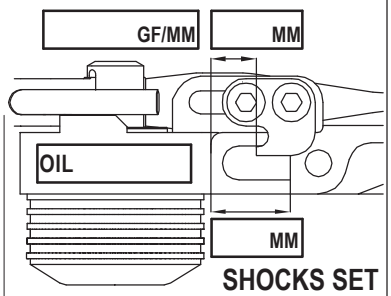
DATE TEMP. °C AIR / TRACK /

TRACK CONDITION ASPHALT ☐ (OUTDOOR ☐ INDOOR ☐) CARPET ☐ TECHNICAL ☐ MIXED ☐ FAST ☐

TRACTION LOW ☐ MEDIUM ☐ HIGH ☐

FRONT





SHOCKS SET

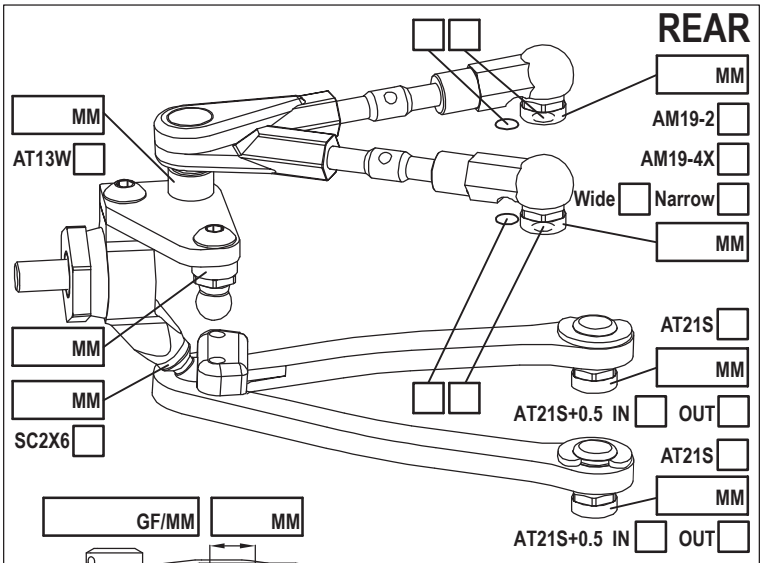
CAMBER ANGLE / °				
CASTER ANGLE / °				
TOE ANGLE / °				
RIDE HEIGHT / MM				
DOWNSTOP / MM				
UPWNSTOP / MM	ROTOR	STD ☐		☐
STABILIZER Ø / MM	SPRING	STD ☐	S	☐
LOW ARM C04M1+0.5 ☐	DAMPER	D2.2 ☐		☐
STEER. ARM AM14LS ☐	SRS/RHS ARR.	I ☐	II	☐
WHEEL SPACER / MM	PSS SETUP	MM A ☐	B	☐

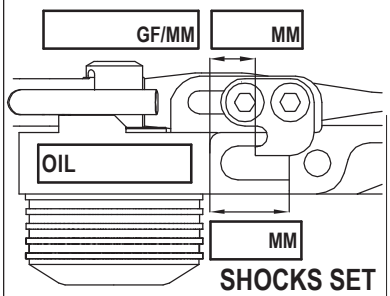
FRONT DRIVE SPOOL ☐ GB2B ☐ LOW ☐ HIGH ☐

DIFF. OIL | DIFF WASHERS

DOGBONE DRIVE ST02 ☐ | WHEELHUB AM06WL ☐ ☐

REAR





SHOCKS SET

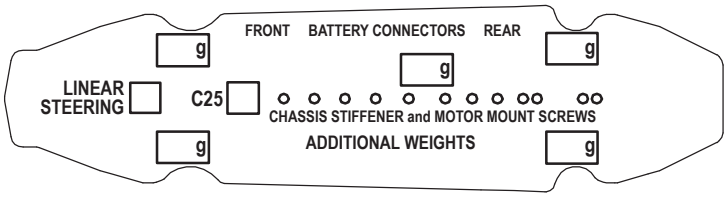
CAMBER ANGLE / °				
CASTER ANGLE / °				
TOE ANGLE / °				
RIDE HEIGHT / MM				
DOWNSTOP / MM				
UPWNSTOP / MM	ROTOR	STD ☐		☐
STABILIZER Ø / MM	SPRING	STD ☐	S	☐
LOW ARM C04M1+0.5 ☐	DAMPER	D2.2 ☐		☐
STEER. ARM AM23 ☐	SRS/RHS ARR.	I ☐	II	☐
WHEEL SPACER / MM	PSS SETUP	MM A ☐	B	☐

REAR DRIVE GB2B ☐ LOW ☐ HIGH ☐

DIFF. OIL | DIFF WASHERS

DOGBONE DRIVE EVD ☐ | WHEELHUB AM06WL ☐ ☐

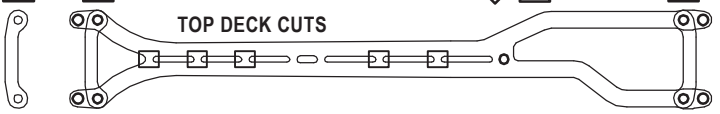
FRAME FLEX SETTING



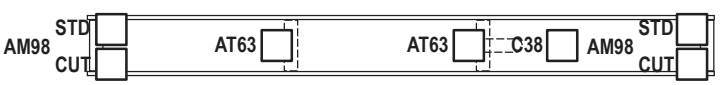
LOWER DECK

CHASSIS STIFFENER ST135 ☐ ST165 ☐

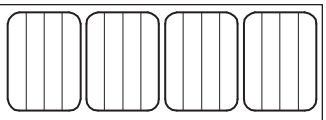
☐ C26 ☐ SHIM UNDER STIFFNER:_____ ST55 ◇ ☐ C26 ☐



☐ ST09 TOP DECK C27X-1 ☐ VTD ☐ _____ ☐ ST09 ☐



TIRES



INSERTS

WHEELS

ADDITIVE TIME - FR RR

NOTES:

MOTOR LATERAL SHIFT / MM	ACKERMANN SHIMS / MM
MOTOR	SERVO
SPUR PINION RATIO	STEER TRAVEL IN OUT
BODY	BATTERY
WING	RECEIVER
ESC	RADIO

ESC SETTING

BEST LAPTIME QUALIF./FINAL POSITION /

COMMENTS:

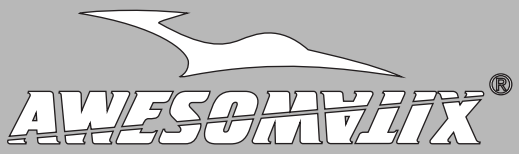
Editable setup sheet can be downloaded from: http://site.petitrc.com/reglages/awesomatix/setupa800/A800XEvo_EditableSetupSheet.pdf

Standard Spare Parts

Parts#	Description
AM05C	Rear Holder
AM06WL	Steering Block
AM14LS	Steering Arm
AM15-3	Battery Nut
AM17XL	Damper Holder L
AM17XR	Damper Holder R
AM19-2	Upper Arm Holder
AM23-1	Rear Steering Arm
AM24-8	Central Servo Holder
AM74	Steering Bellcrank
AM77X3	Motor Mount
AM78X1	Bulkhead
AM79A	Steering Rack
AM88R	Shock Holder R
AM88L	Shock Holder L
AT03BX	Spool Axle
AT13	Wheel Hex
AT14	Turnbuckle
AT21	Pivot Ball
AT21S	Pivot Ball Short
AT25	Turnbuckle Long
AT40-1	Damper Cup
AT41-2	Damper Vane
AT42-1	Damper Case
AT52A	Bellcrank Post
AT55	Spur Nut
AT62	Spur Holder
AT67	Pulley Washer
AT120	20T Alloy Pulley
AT123B	GD2B Case1
AT124B	GD2B Case2
AT142	Sway Bar Stopper
DT08	Pulley Flange
ST01	Front Axle
ST02	Rear Axle
ST03	Ball Stud
ST05L	Shock Rod
ST113	IFJ Universal Bone
ST114	IRJ Universal Bone
ST116	IFJ/IRJ Cross
ST16	U-Joint Cross
ST17-1	Universal Ring
ST019	Top Deck Screw
ST23X	IRJ Outdrive
ST24	4,8x6mm Ball Stud
ST31-1	GD2 Output Axle
ST37X	IFJ Outdrive
ST38	Universal Nut
ST55	Top Deck Bushing
ST105	5g Round Weight
ST110	10g Round Weight
ST135	35g Chassis Stiffener
G07	GD2 Satellite Gear
G08	GD2 Bevel Gear
D2.2	D2.2 Damper
P01	Ball Joint-1
P02	Ball Joint-2
P03	Arm Ball Cap
P04	Arm Hasp
P05	Sway Bar Joint
P07	Arm Clip
P09X	Shock Screw Holder
P12X	Sway Bar Holder
P13-4	Ball End
P14	Bumper Set
P15L	Lightweight Foam Bumper
P16	Lock Ring
P23	Outer Battery Holder
P25	Battery Clamp
P39	GD2 Cross Pin
P45R	Damper Piston
P46R	Diff Piston
P56	Antenna Holder
P58	Belt Tensioner
P110	Bearing Housing
P138	38T Pulley
P138S	Spool 38T Pulley
C01B-X-LA	Lower Deck Carbon
C01B-XA-LA	Lower Deck Alloy
C01B-XAH-LA	Lower Deck Alloy Hard
C04M1+0.5	Suspension Arm
C26	Top Stiffener
C27X1	Top Deck
SWB10	Sway Bar 1.0mm
SWB11	Sway Bar 1.1mm
SWB12	Sway Bar 1.2mm
SPR01	Shock Spring
SPR02X	Shock Rod Guide
SPR03	Shock Pointer
SPR05	Body Clip
SPR07	E-Ring
SH0.5	6x3x0.5mm Spacer (Silver)
SH1.0	6x3x1.0mm Spacer (Gray)
SH1.75	6x3x1.75mm Spacer (Black)
SH0.1	6x8x0.1mm Shim
WA02	3x5x0.2 Washer
WA03	5x15x0.3 Washer
PIN01	1.5x7.8 Pin
PIN02	1.5x5.8 Pin
OR13	1x13 mm O-ring
OR05M	GD O-Ring Medium
OR06	5.5mm O-RING
OR155	Damper O-Ring
OR18	1x8mm O-ring
B106RS	MR106RS Bearing
B85	MR85 Bearing
B84SS	MR84SS Bearing
B63SS	MR63ZZ Bearing
SRS	Spring Rating Screw
RHS	Ride Height Screw
SC2X4	M2x4 Cap Head Screw
SC2X6	M2x6 Cap Head Screw
SB2.5X8	M2.5x8 Button Head Screw
SS3X3	M3x3 Set Screw
SS3X3-914	M3x3 Set Screw DIN914
SS3X5	M3x5 Set Screw
SB3X5	M3x5 Button Head Screw
SB3X6	M3x6 Button Head Screw
SB3X8	M3x8 Button Head Screw
SB3X10	M3x10 Button Head Screw
SF3X5	M3x5 Flat Head Screw
SF3X6	M3x6 Flat Head Screw
SF3X8	M3x8 Flat Head Screw
SF3X10	M3x10 Flat Head Screw
BEL189B	Belt 189 mm Bando
BEL513B	Belt 513 mm Bando
DG1X	Damper Guage Set
INS-A800EVO	A800X EVO Manual
STS-A800X	A800X Stickers Sheet

Optional Parts

Parts#	Description
C04M1	Suspension Arm
C04M1+1.5	Suspension Arm Long
C04AL1+0.5	Alloy Suspension Arm
C04AL1+1.5	Alloy Suspension Arm Long
C04M1+8.0	Suspension Arm Long
C04M1+9.0	Suspension Arm Long
C04AL+8.0	Alloy Suspension Arm Long
C04AL+9.0	Alloy Suspension Arm Long
C07A	Carbon bumper
C25	Steering Stiffener
ST09	Upper Collar
ST17	Universal Ring
ST24M	4,8x8mm Ball Stud
ST24L	4.8x10mm Ball Stud
ST165	65g Chassis Stiffener
AT03B	Spool Axle
AT06	Alloy Antenna Holder
AT13W	Wheel Hex Wide
AT15	Bearing Spacer
AT18	Steering Limiter
AT21S0.5	Offset Pivot Ball Short
AT21ST-A	Pivot Ball Steel Short
AT22M	Rear Body Holder
AT58	Alloy Belt Tensioner
AT78	Damper Piston
AM06M	Steering Block
AM12-1	Alloy Battery Holder
AM14A	Steering Arm
AM19-4X	Upper Arm Holder
AM87	Bumper Brace
AM105	MMCX Rear Stiffener
DT10-2-1	Bearing Housing
DT10-3	Bearing Housing
OR152S	U-Ring
OR155E	Damper O-Ring
P20	Front Universal Ring
P40F	Servo Arm (Futaba)
P40K	Servo Arm (KO)
P45L	Sponge Piston
P138LF	38T Pulley Low Friction
P138LFS	Spool 38T Pulley Low Friction
RHS-P	Precise Ride Height Screw
SB3X5AL	M3x5 Alloy Button Head Screw
SH3X5X0.1	3x5x0.1mm Shim
SH3X5X0.5	3x5x0.5mm Shim
SPR01-98	Shock Spring 98 Deg
SPR01S	Shock Spring Soft
SPR01S-98	Shock Spring Soft 98 Deg
SPR08	Body Support Set
SS3X4	M3x4 Set Screw
SWB13	Sway Bar 1.3mm
T01	5.5/4 mm Wrench
D2.2-S	Damper Set
FCB	Flexible Caster Block Set
BC1	Battery Clamp Set
ABS	Adjustable Body Shift Set
VTD	Vertical Top Deck Set
LS2	Linear Steering Set
AS-701L	Brushless Low-Profile Servo
AS-701L-GS	Gear Set for AS701L Servo
DL	Diagonal Link Set
DL-A	Diagonal Link Set A
MMCX-2	Middle Motor Conversion Set
C04M1-LA	Long Arm Set
VTD MM	MMCX Vertical Top Deck Set



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Email: support@awesomatix.com