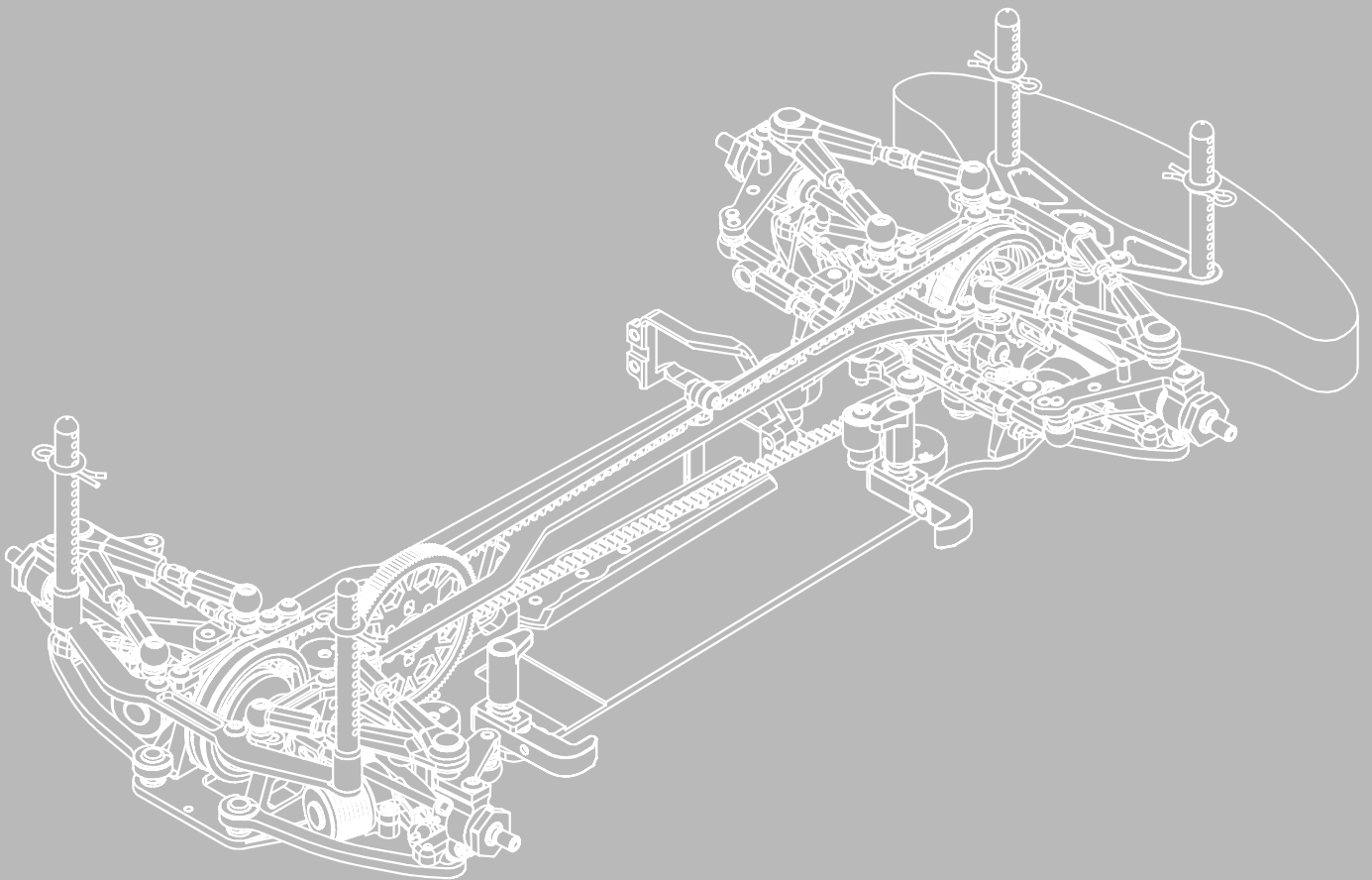


# A800

**1/10-SCALE TOURING CAR**



## **INSTRUCTION MANUAL**

## INTRODUCTION

Congratulations on purchasing your Awesomatix car!

The A800 car was designed in Russia and produced by Awesomatix Innovations LLP registered in UK.

The A800 car utilises many unique features, including some patented innovations.

## BEFORE YOU START

The A800 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](mailto:support@awesomatix.com). If, for any reason, you decide that you do not want your A800 car you must not begin assembly. Your A800 car cannot be returned to Awesomatix Innovations LLP 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 A800 car is designed for use on r/c car race tracks. It should not be used in general public areas.

Awesomatix Innovations LLP 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.

Awesomatix Innovations LLP do reserve all rights to change any specifications without prior notice. All rights reserved.

## 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 A800 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 A 800 assembling on the Internet sites: [www.awesomatix.info/en/tips-tricks/aufbau/](http://www.awesomatix.info/en/tips-tricks/aufbau/) , [www.awesomatixusa.com/p/tips.html](http://www.awesomatixusa.com/p/tips.html) , <http://jdandracing.blogspot.gr> .

## 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 LLP 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.

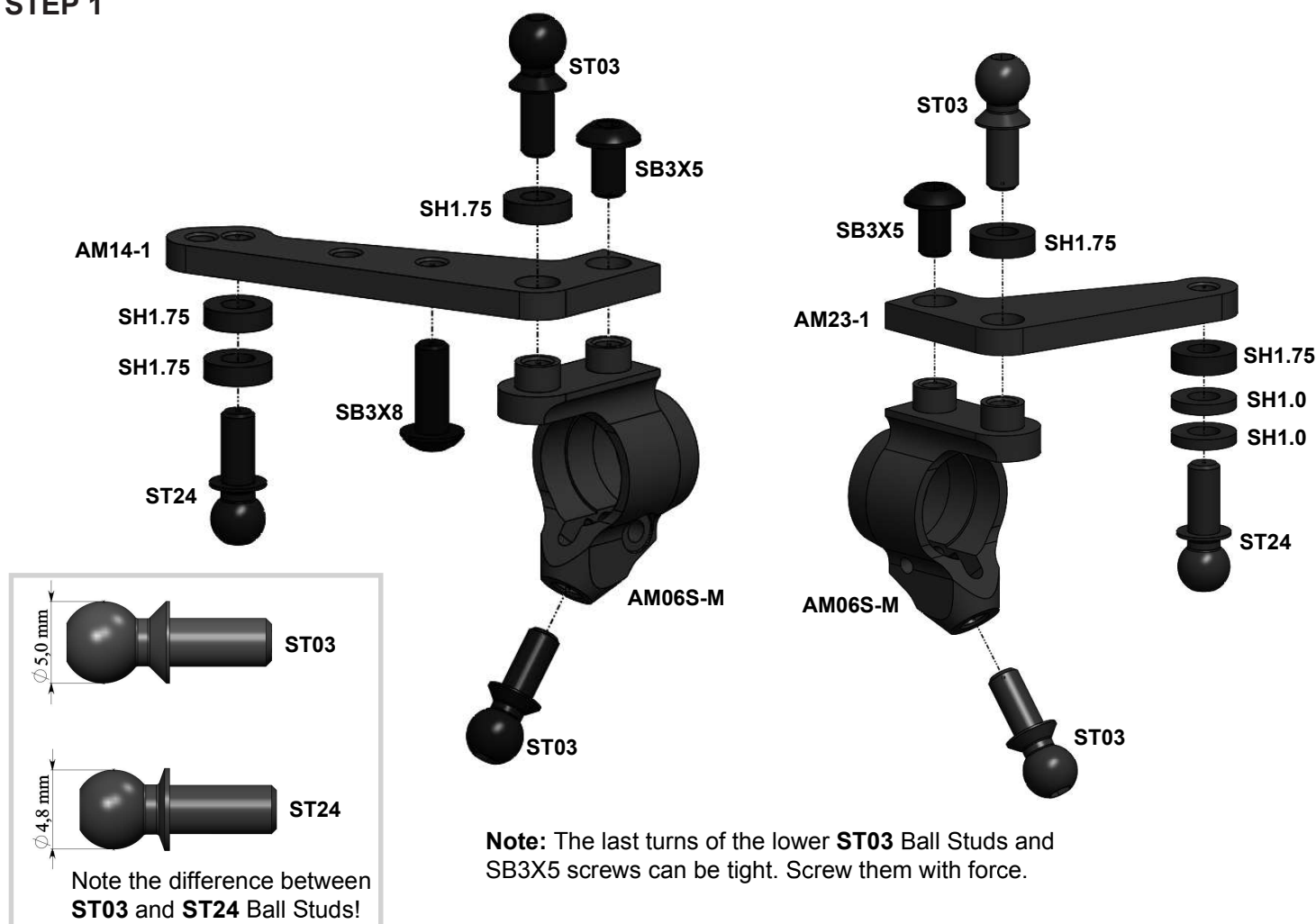
## EQUIPMENT RECOMMENDED (NOT INCLUDED)

- 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
- M4mm Wheel Nuts
- Touring Car Wheels, Tires, Inserts

## TOOLS RECOMMENDED (NOT INCLUDED)

- 1.5mm, 2.0mm Hex Driver
- 2.0mm Ball End Hex Driver
- 5.5mm, 7mm, 9mm, 10mm, 12mm Wrench
- 2.5mm Flat Screwdriver
- Callipers
- Hobby Knife
- Camber Gauge
- Ride Height Gauge
- Thin CA Glue
- Thread Lock
- Diff Silicone Oil
- Joint Grease

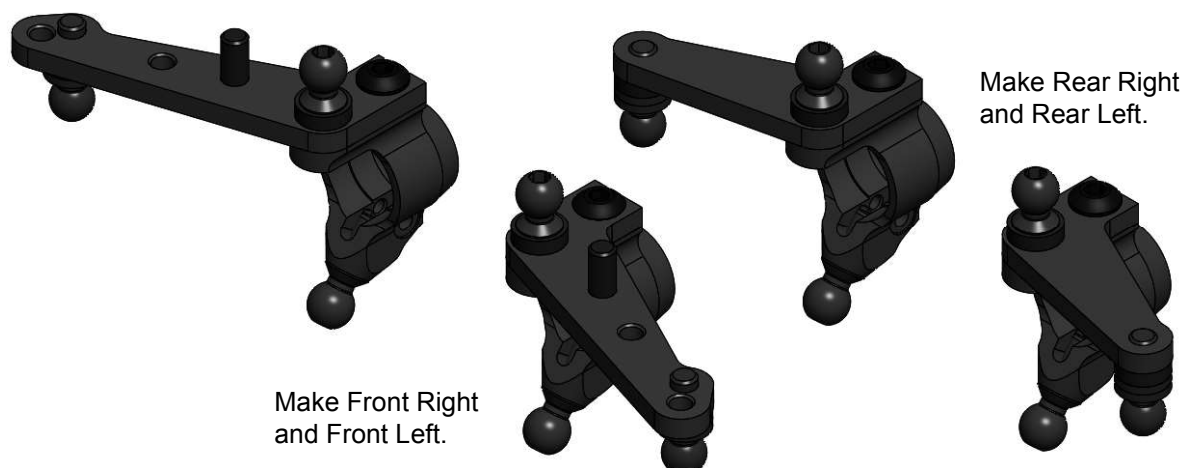
## STEP 1



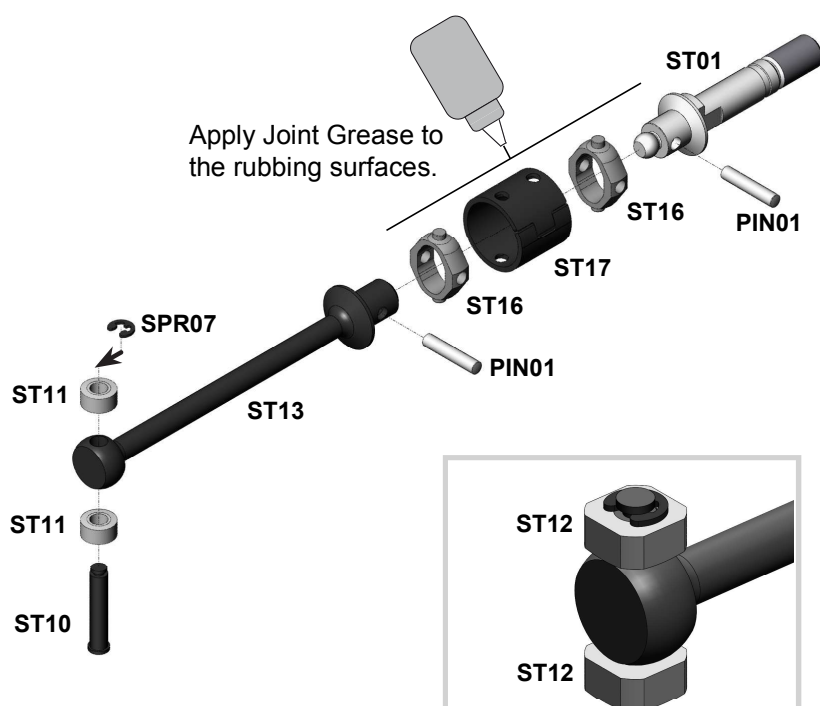
		<b>SB3X5</b>	M3x5 Button Head Screw	x4		<b>ST03</b>	Ball Stud	x8
		<b>SB3X8</b>	M3x8 Button Head Screw	x2		<b>AM06S-M</b>	Steering Block	x4
						<b>AM14-1</b>	Steering Arm	x2
		<b>SH1.0</b>	6x3x1mm Spacer (Gray)	x4		<b>AM23-1</b>	Rear Steering Arm	x2
		<b>SH1.75</b>	6x3x1.75mm Spacer (Black)	x10		<b>ST24</b>	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.

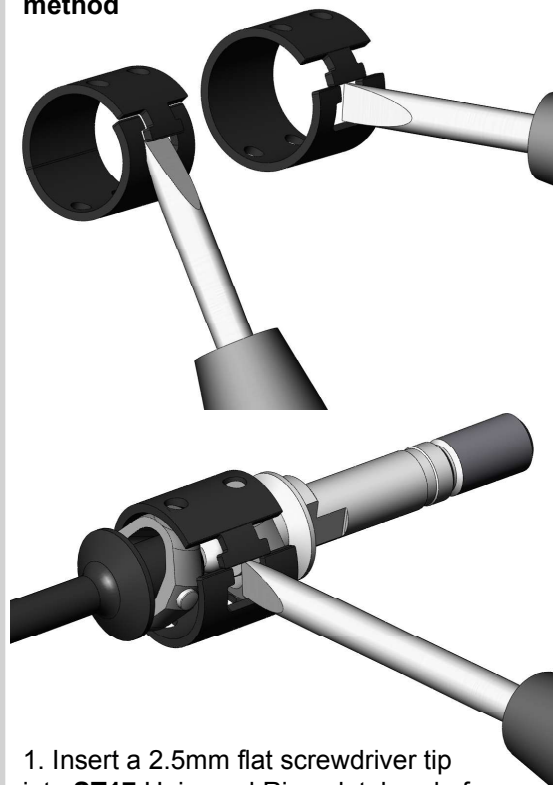


## STEP 2



You can use optional **ST12** Bushings S or **UB1** Ball Bearings set instead of **ST11** Bushing R.

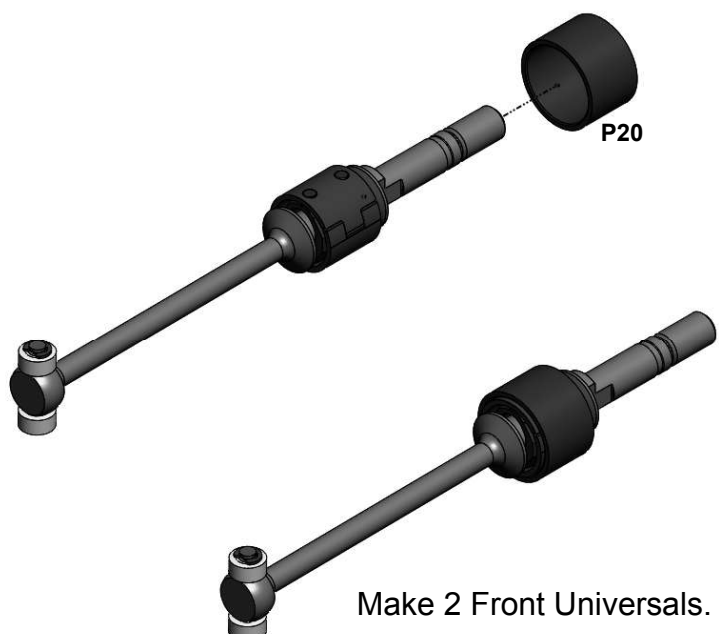
### Assembling/disassembling method



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.

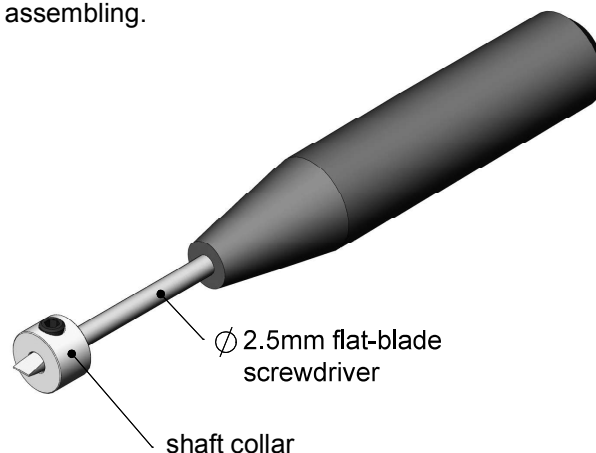
		<b>PIN01</b> 1.5x7.8 Pin	x4	<b>ST01</b> Front Axle	x2
		<b>ST10</b> 2.0mm Pin	x2	<b>ST16</b> U-Joint Cross	x4
		<b>SPR07</b> E-Ring	x2	<b>ST17</b> Universal Ring	x2
	◎	<b>ST11</b> Bushing R	x4	<b>ST13</b> Front Universal Bone	x2
				<b>P20</b> Front Universals Ring	x2

## STEP 2 FINISHED



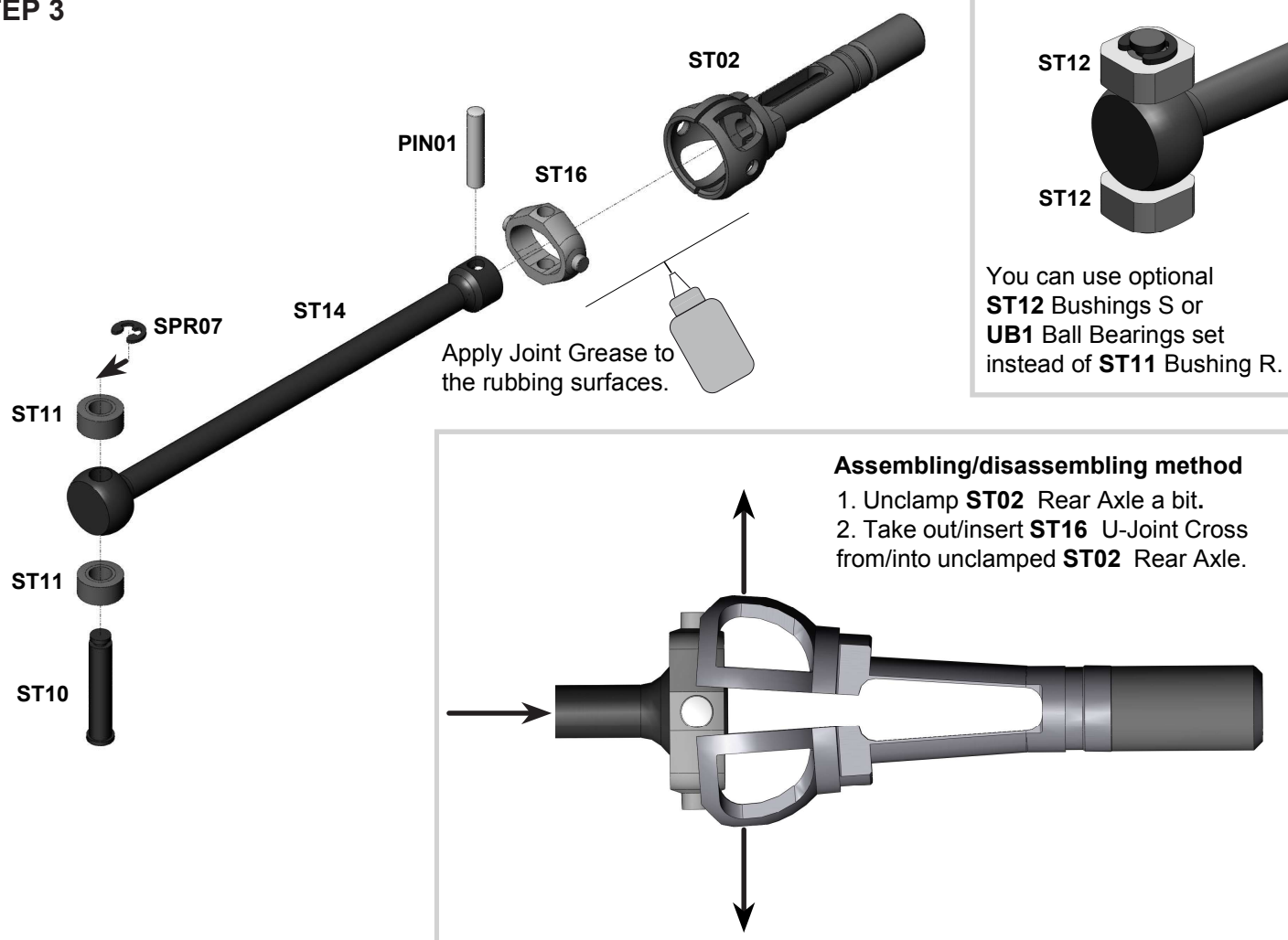
### Tip:





Fix a appropriate shaft collar on 1-2mm distance from the screwdriver end. It will help at the Front Universals assembling.





## STEP 3



 <b>PIN01</b> 1.5x7.8 Pin	x2	<b>ST02</b> Rear Axle	x2
 <b>ST10</b> 2.0mm Pin	x2	<b>ST16</b> U-Joint Cross	x2
 <b>SPR07</b> E-Ring	x2	<b>ST14</b> Rear Universal Bone	x2
 <b>ST11</b> Bushing R	x4	<b>P08</b> C-Drive (optional)	x2

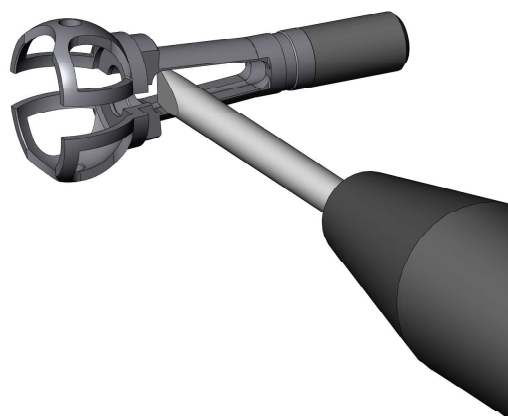
## STEP 3 FINISHED

Make 2 Rear Universals.

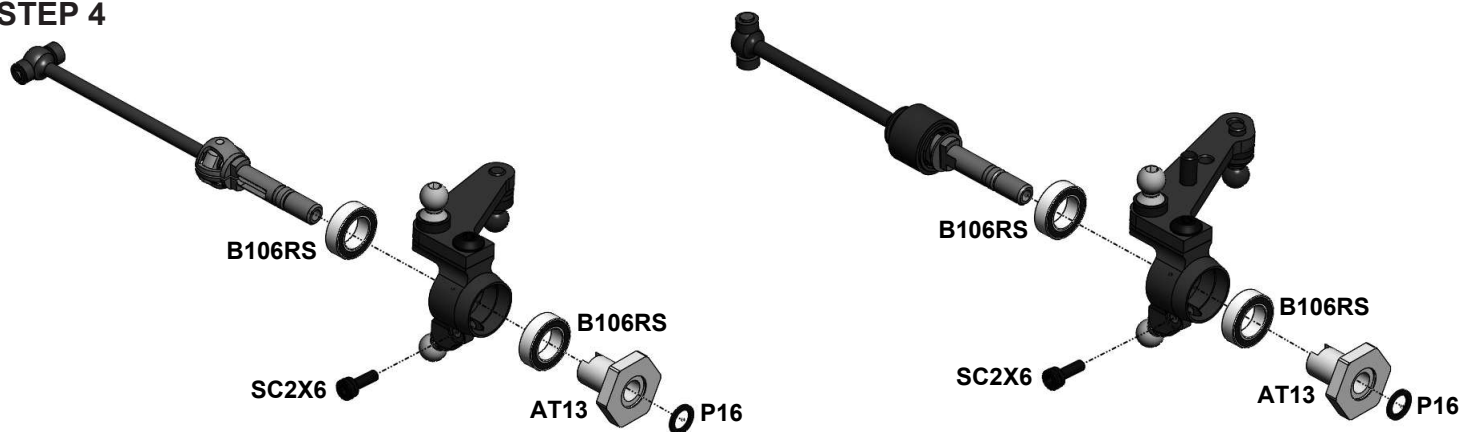


### Tip:

Use a 2.5mm flat screwdriver to unclamp **ST13** Rear Axle.

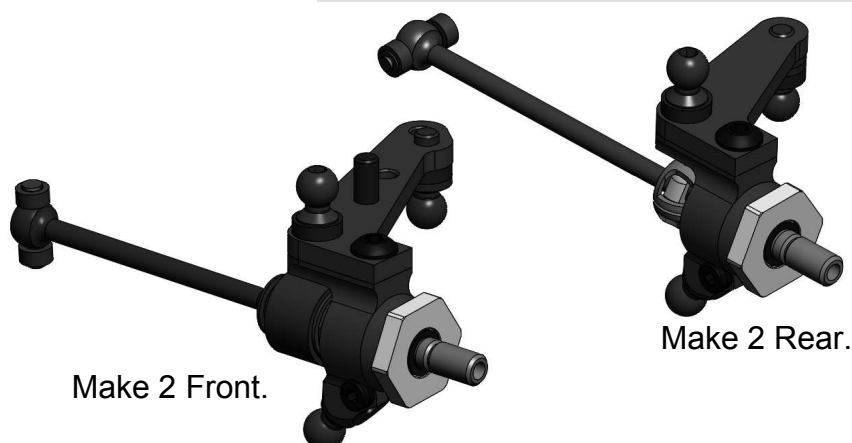


## STEP 4



	<b>B106RS</b> MR106RS Bearing	x8	<b>AT13</b> Wheel Hex	x4
	<b>SC2X6</b> M2x6 Cap Head Screw	x4		
	<b>P16</b> Lock Ring	x4		

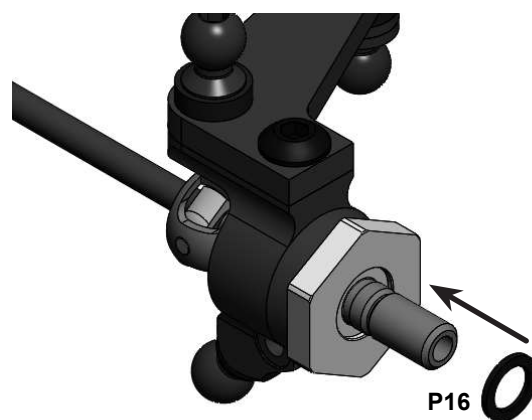
## STEP 4 FINISHED



Make 2 Front.

Make 2 Rear.

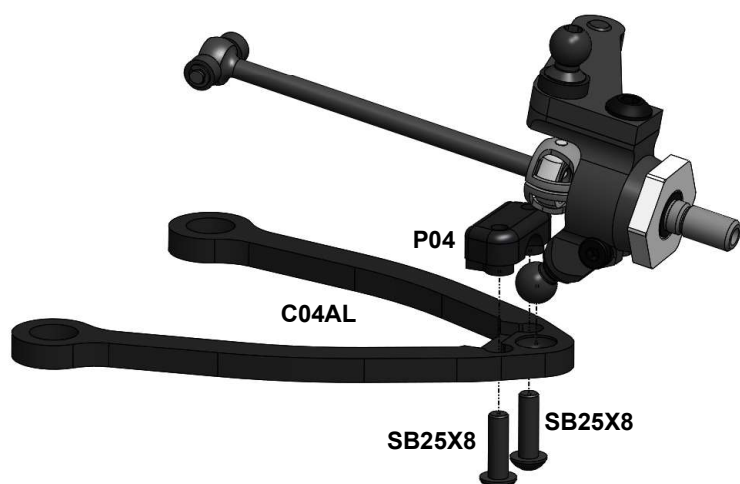
**Note:** Rear Universals may be a bit tight at this stage. But don't worry as the Rear Universals take its true position after the wheels mounting.



**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

	<b>SB25X8</b> M2.5x8 Button Head Screw	x8
	<b>C04AL</b> Suspension Arm	x4
	<b>P04</b> Arm Hasp	x4



## STEP 5 FINISHED



Make Front Right and Front Left.

Make Rear Right and Rear Left.

**Note:** **P04** have the tight fit in **C04AL** arm. Don't overtighten **SB25X8** Screws to avoid **ST03** Ball Stud binding. Achieve a free action of the ball joint with a minimal backlash.

## Rebuildable Damper Set

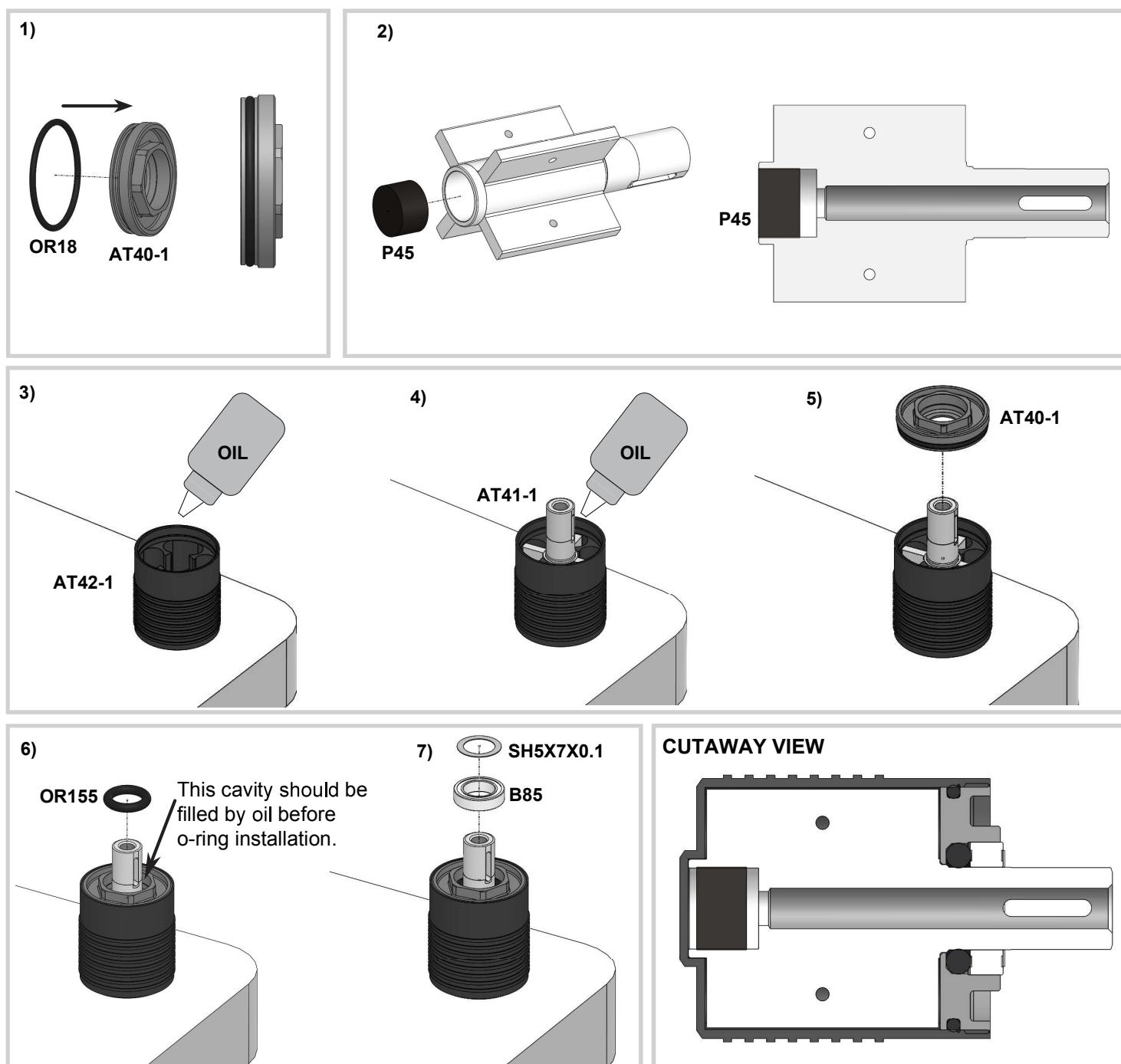
**Note:** Every **A800** and **A800A** kit includes four factory assembled and oil filled **D2.1** Rebuildable Dampers. **D2.1** damper allows for both dampening adjustment via thicker silicon oil, and consistent performance since the racer can rebuild the shock.

The factory assembled and oil filled **D2.1** Rebuildable Dampers come with 500 cst pure silicone oil inside.

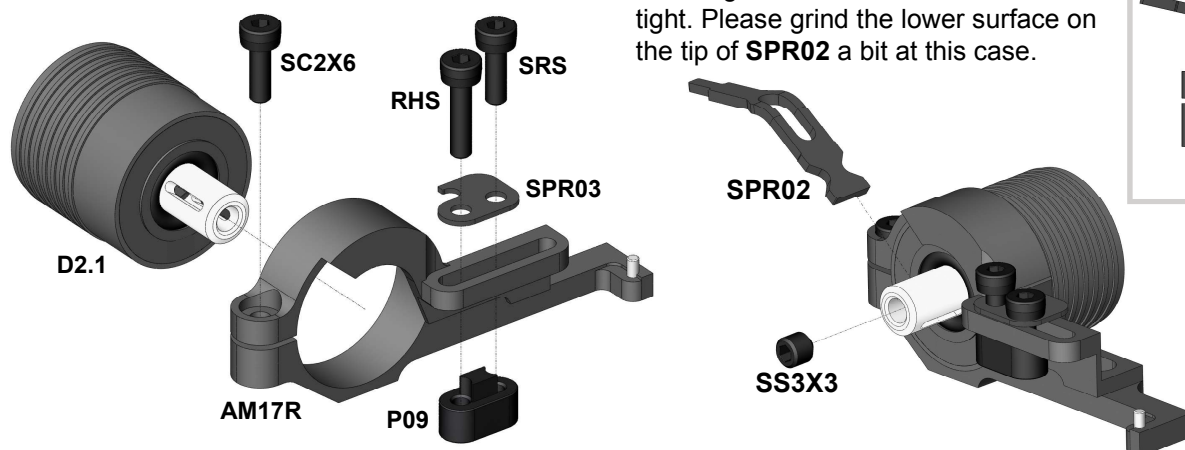
The build instructions for **D2.1** Rebuildable Dampers is on this page.

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 **P45** Sponge Piston into **AT41-1** Vane center cavity. Align the outer face of **P45** Piston with the outer edge of **AT41-1** Vane cavity.
- 3) Stand **AT42-1** Case up and fill ~1/2 of volume with the desirable silicone oil. Insert **AT41-1** Vane into **AT42-1** Case slowly full way down.
- 4) Add more silicone oil. Oil should cover the **AT41-1** 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 **AT41-1** 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 **AT41-1** Vane output shaft. Press on and hold **SH5X7X0.1** shim and **B85** bearing against an upward shift at **SS3X3** screwing.
- 8) Clean up oil off the outer surface of damper.

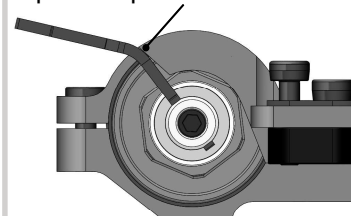


## STEP 6



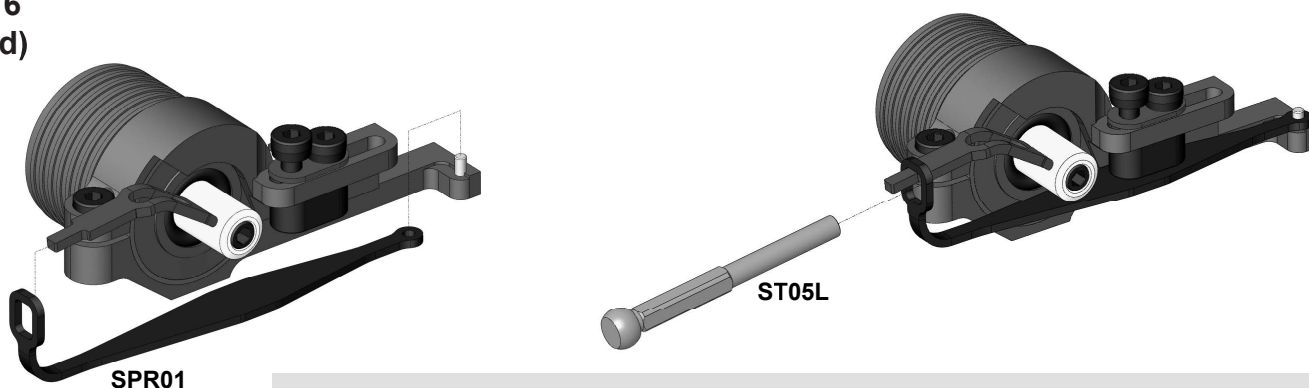
Inserting of **SPR02** into vane slot can be tight. Please grind the lower surface on the tip of **SPR02** a bit at this case.

Up travel position of **SPR02**.



**Attention!** The damper's output shaft can't rotate more than 40 degrees. After installation of **SPR02** rotate the complete damper within **AM17** until the maximum up travel is reached and secure **SC2x6** screw in the **AM17** after that. At the max up travel position the **SPR02** should touch the stopper on **AM17** !!!

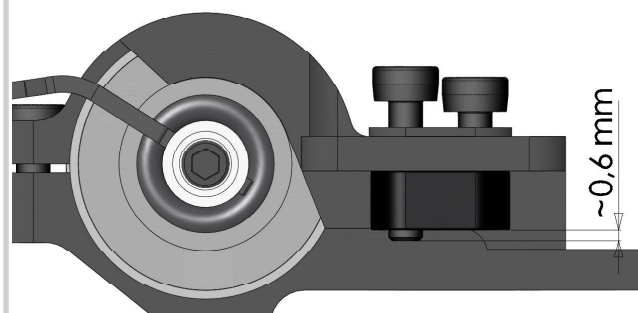
## STEP 6 (cont'd)



	<b>SC2X6</b> M2x6 Cap Head Screw	x4	<b>AM17R</b> Damper Holder Right	x2
	<b>SRS</b> Spring Rating Screw	x4	<b>AM17L</b> Damper Holder Left	x2
	<b>RHS</b> Ride Height Screw	x4	<b>D2.1</b> Damper	x4
	<b>SPR03</b> Shock Pointer	x4	<b>SPR01</b> STD Shock Spring	x4
	<b>P09</b> Shock Screw Holder	x4	<b>SPR02</b> Shock Rod Guide	x4
			<b>ST05L</b> Shock Rod Long	x4

## STEPS 6 FINISHED

Assemble 2 Right Shocks and 2 Left Shocks.



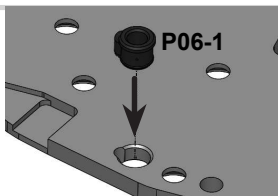
### Note:

Initial position of **RHS** Ride Height Screw is ~0,6mm. Don't tighten **SRS** Spring Rating Screw too much to avoid P09 thread damage.



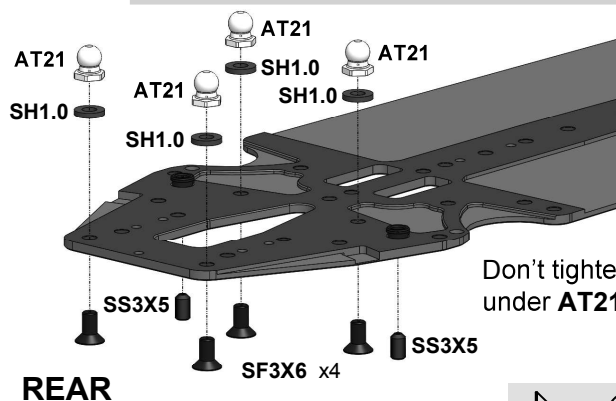
## STEP 7

Press P06-1 into the chassis, push them upwards and leave the least possible material sticking out the underside.

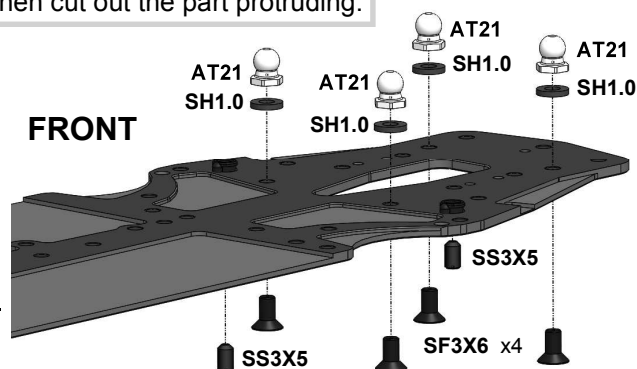


P06-1 CA drop

Apply a drop of CA glue and then cut out the part protruding.

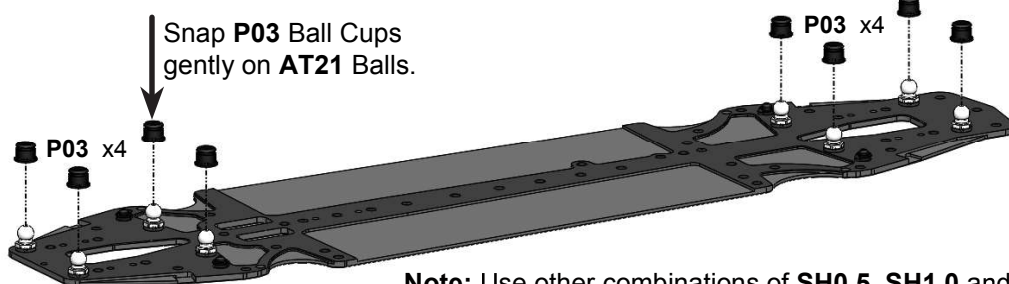


Don't tighten SF3X6 screws under AT21 balls at this stage.



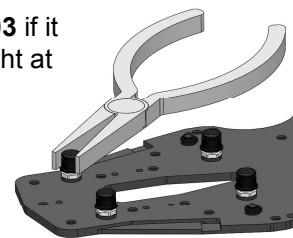
	<b>SF3X6</b> M3x6 Flat Head Screw	x8	<b>P06-1</b> Downstop Collar	x4
	<b>SS3X5</b> M3x5 Set Screw	x4	<b>P03</b> Arm Ball Cap	x8
	<b>SH1.0</b> 6x3x1mm Spacer (Grey)	x8	<b>AT21</b> Pivot Ball	x8

## STEP 7 (cont'd)



Snap P03 Ball Cups gently on AT21 Balls.

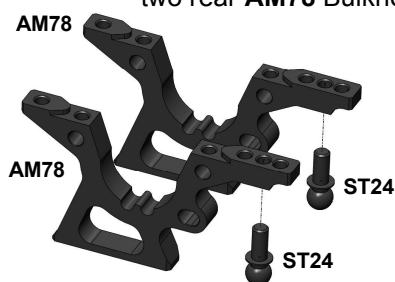
Crimp P03 if it will be tight at swinging.



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

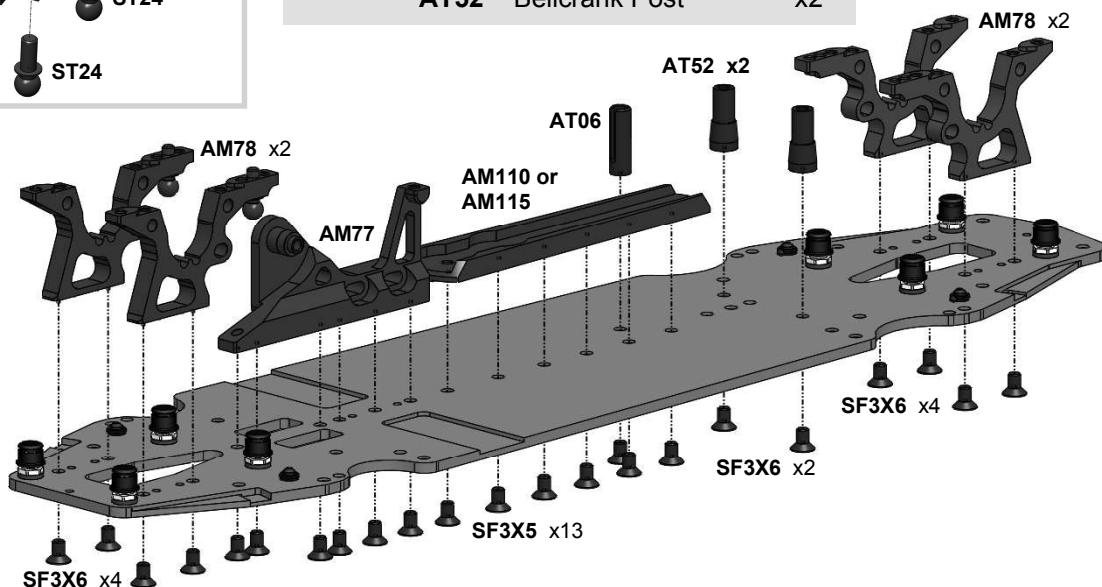
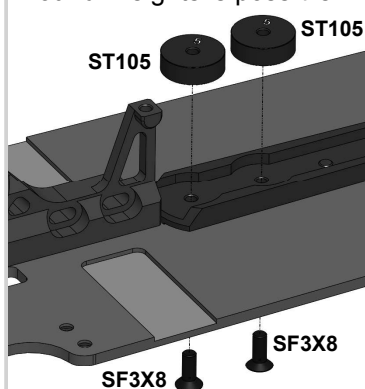
## STEP 8

Install two ST24 Ball Studs on two rear AM78 Bulkheads.

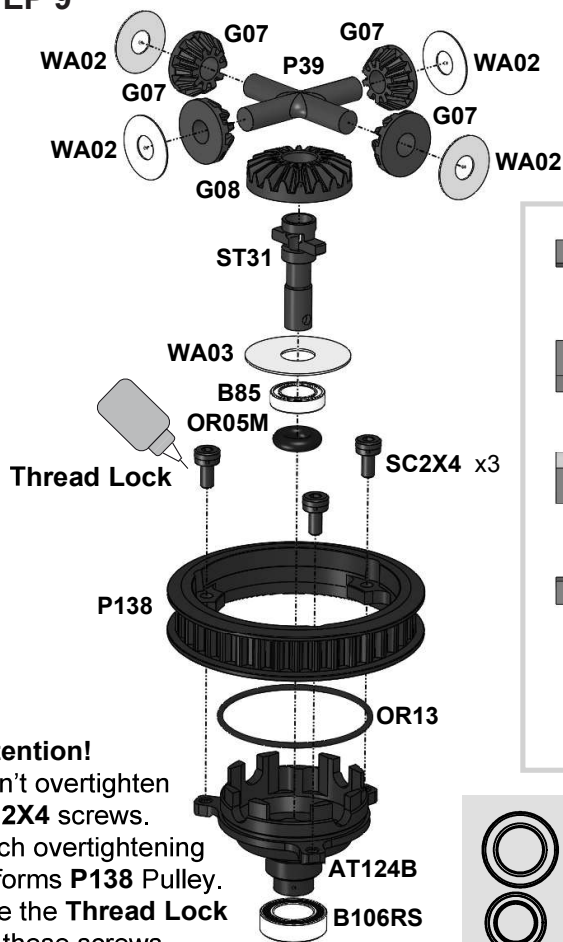


	<b>SF3X6</b> M3x6 Flat Head Screw	x10
	<b>SF3X5</b> M3x5 Flat Head Screw	x13
	<b>ST24</b> 4,8mm Ball Stud	x2
	<b>AM77</b> Motor Mount	x1
	<b>AM78</b> Bulkhead	x4
	<b>AM110 or AM115</b> Stiffener	x1
	<b>AT06</b> Antenna Holder	x1
	<b>AT52</b> Bellcrank Post	x2

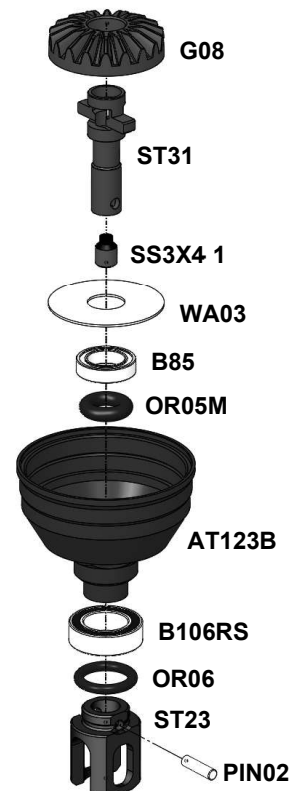
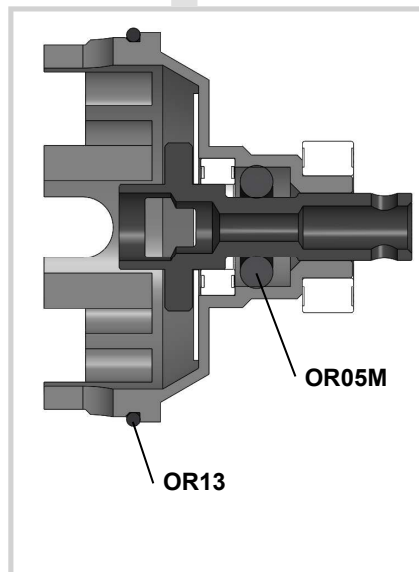
Installation of two ST105 Round Weights is possible.



## STEP 9



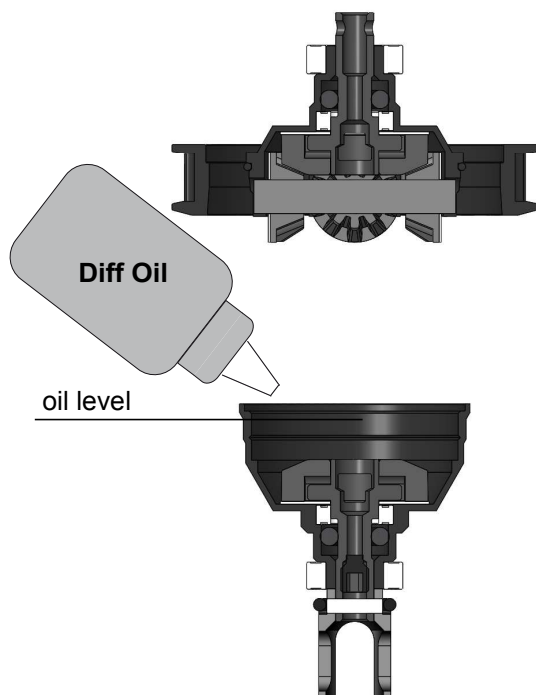
## STEP 10



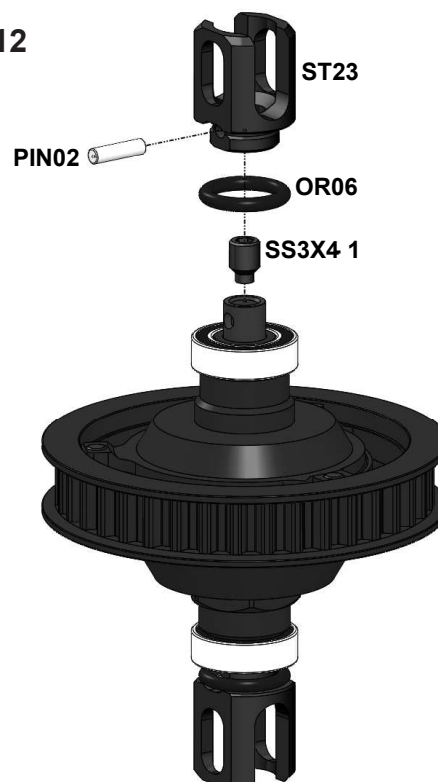
	<b>B106RS</b>	MR106RS Bearing	x2	<b>AT123B</b>	GD2B Case1	x1
	<b>B85</b>	MR85 Bearing	x2	<b>AT124B</b>	GD2B Case2	x1
	<b>OR05M</b>	O-Ring	x2	<b>P138</b>	38T Pulley	x1
	<b>OR06</b>	O-Ring	x2	<b>ST23</b>	GD Outdrive	x2
	<b>SS3X4-1</b>	M3x4 DIN915 Screw	x2	<b>ST31</b>	GD2 Output Axle	x2
	<b>PIN02</b>	1,5x5,8 Pin	x2	<b>P39</b>	GD2 Cross Pin	x1
	<b>SC2X4</b>	M2x4 Cap Head screw	x3	<b>OR13</b>	13 mm O-Ring	x1
				<b>G07</b>	GD2 Satellite Gear	x4
				<b>G08</b>	GD2 Bevel Gear	x1
				<b>WA02</b>	3.5x9.5x0.2 Washe	x4
				<b>WA03</b>	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** axial hole.

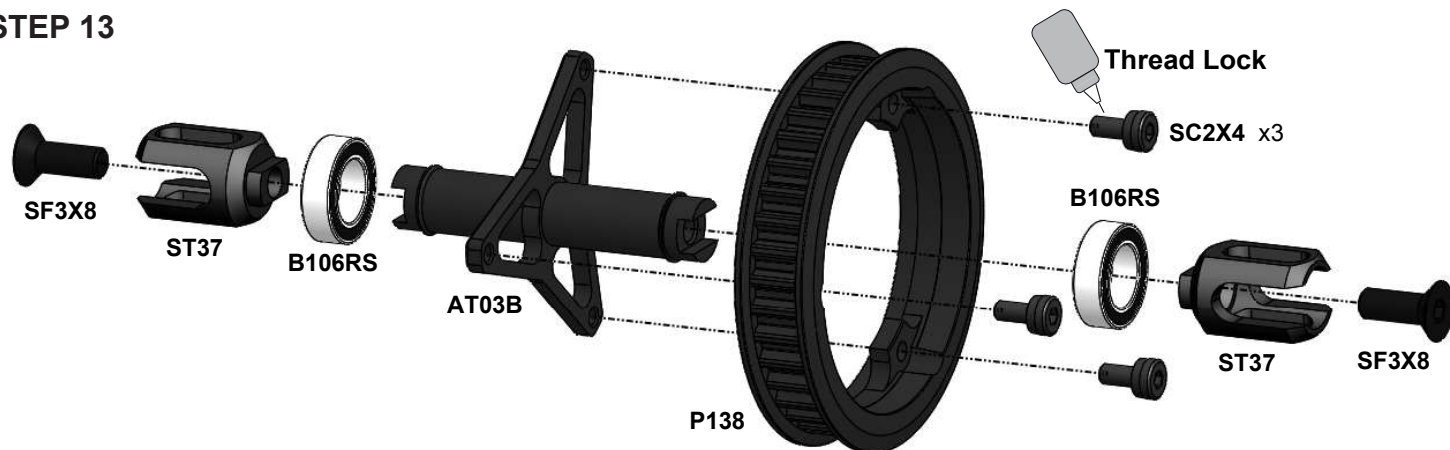




## STEP 12



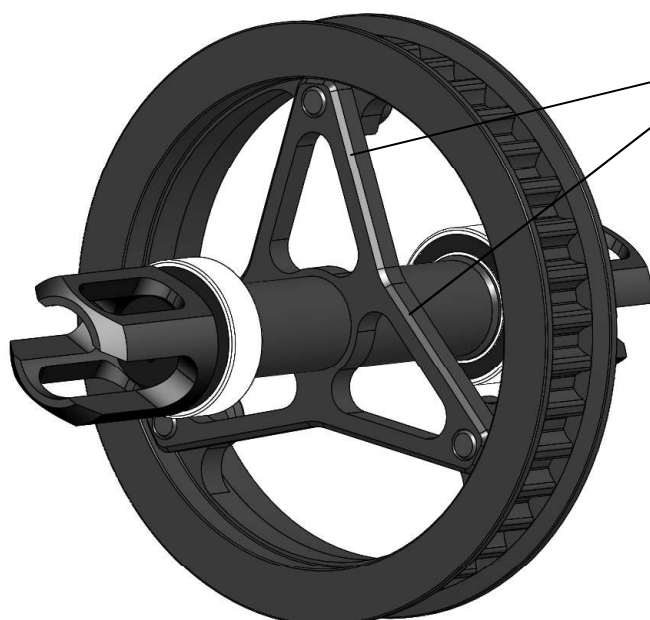


## STEP 13



	<b>B106RS</b>	MR106RS Bearing	x2		<b>ST37</b>	Spool Outdrive	x2
	<b>SF3X8</b>	M3x8 Flat Head Screw	x2		<b>AT03B</b>	Spool Axle	x1
	<b>SC2X4</b>	M2x4 Cap Head Screw	x3		<b>P128</b>	38T Pulley	x1

## STEP 13 FINISHED



Chamfers on this face of **AT03B** Axle.

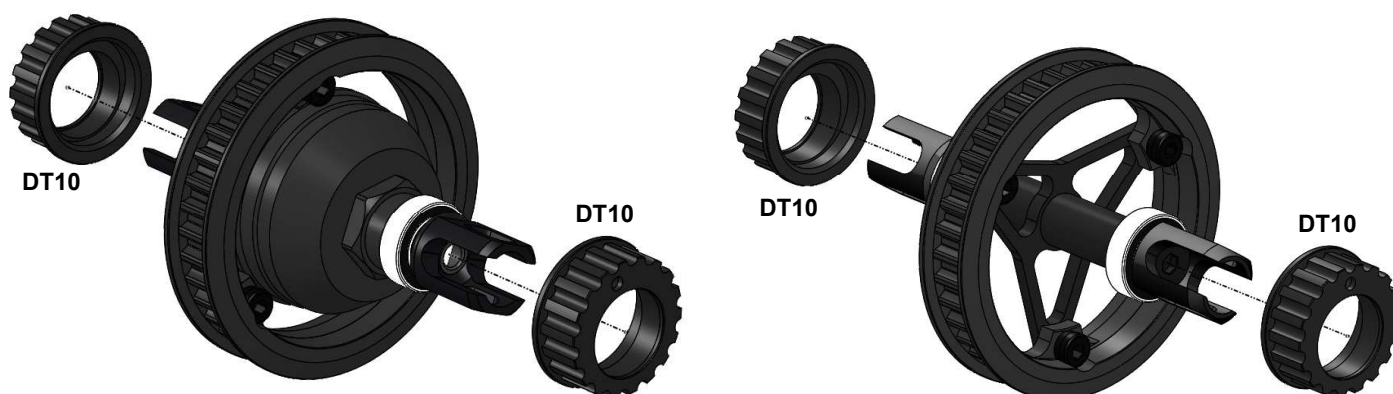
Note the correct orientation of **AT03B** Axle regarding to **P138** Pulley.

### Attention!

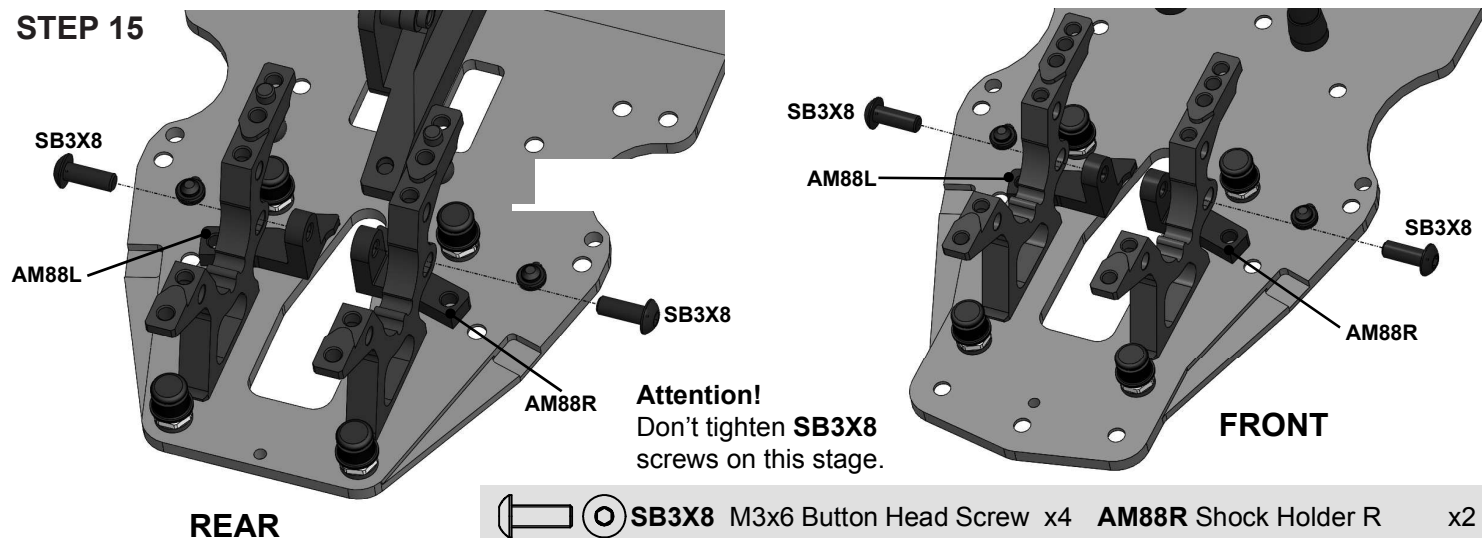
Don't overtighten **SC2X4** screws.  
Such overtightening deforms **P138** Pulley.  
Use the **Thread Lock** for these screws.

## STEP 14

**DT10** Bearing Housing x4

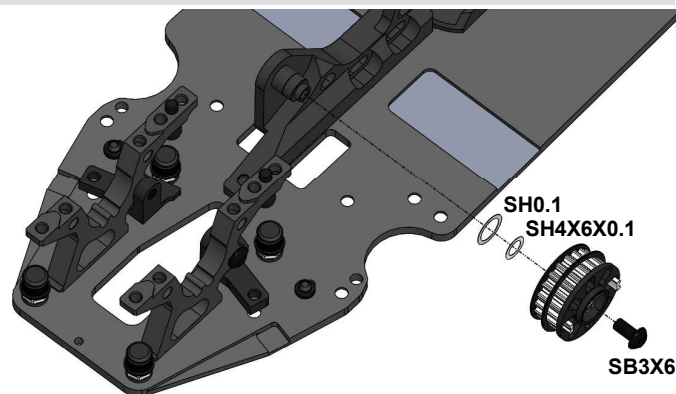
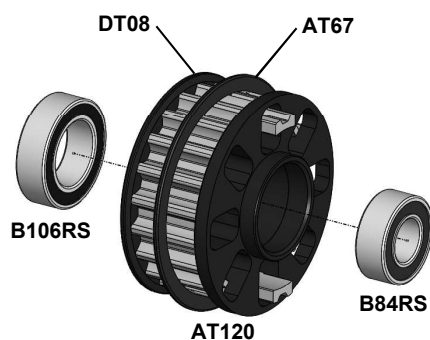


## STEP 15



	<b>SB3X8</b> M3x6 Button Head Screw	x4	<b>AM88R</b> Shock Holder R	x2
	<b>SB3X6</b> M3x6 Button Head Screw	x1	<b>AM88L</b> Shock Holder L	x2
	<b>SH0.1</b> 6x8x0.1mm Shim	x1	<b>AT120</b> 20T Alloy Pulley	x1
	<b>SH4X6X0.1</b> 4x6x0.1mm Shim	x1	<b>B106RS</b> MR106RS Bearing	x1
			<b>B84RS</b> MR84RS Bearing	x1

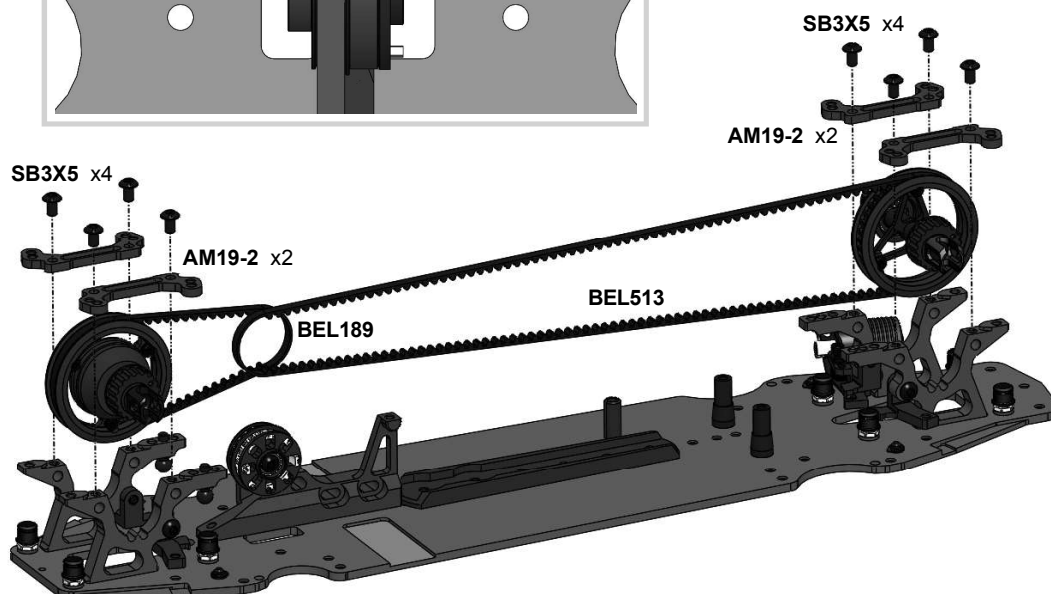
## STEP 16



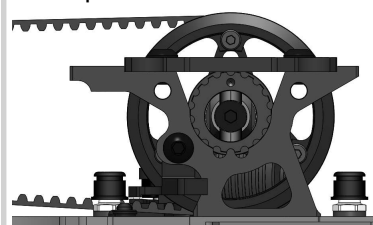
## STEP 17

**AT67** ring should be between belts

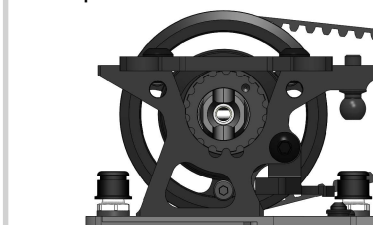
	<b>SB3X5</b> M3x5 Button Head Screw	x8
	<b>AM19-2</b> Upper Arm Holder	x4
	<b>BEL513</b> Belt 513 mm	x1
	<b>BEL189</b> Belt 189 mm	x1



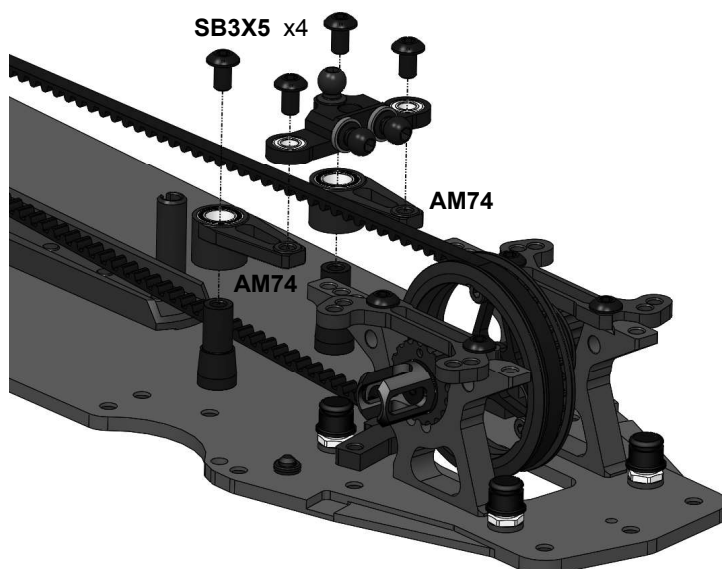
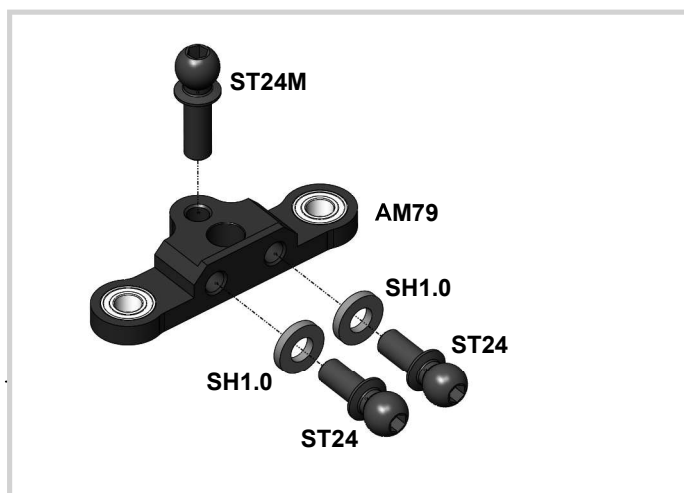
Initial position of front **DT10**






Initial position of rear **DT10**.

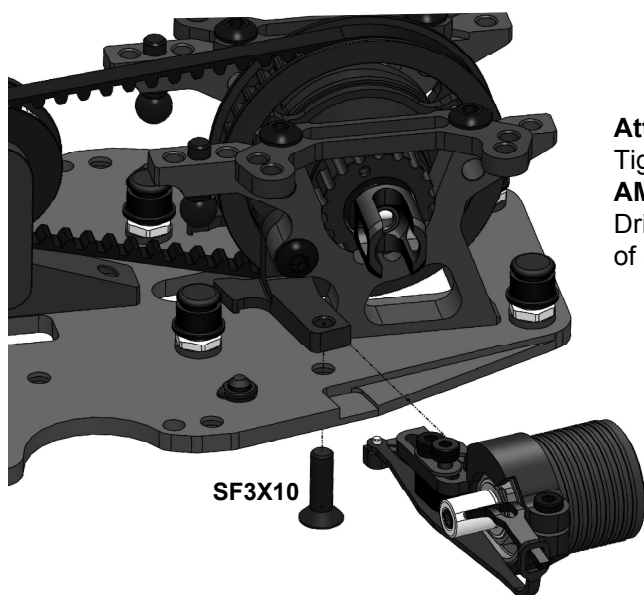


## STEP 18

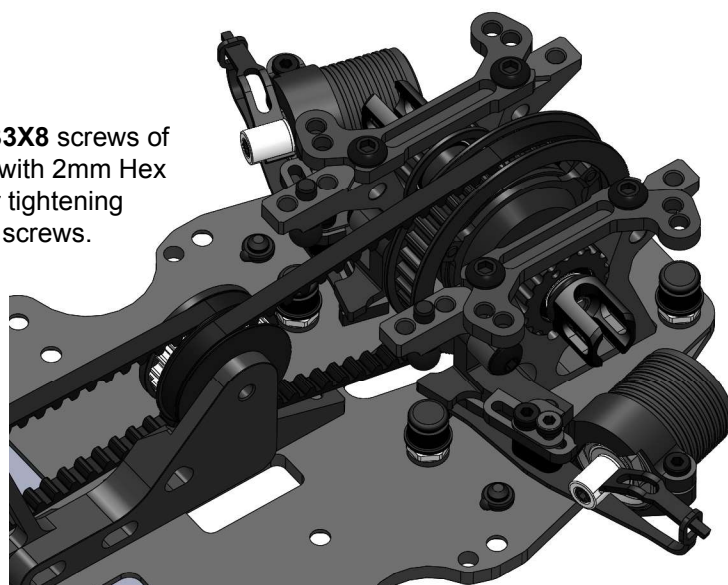


	<b>SB3X5</b> M3x5 Button Head Screw	x4	<b>AM79</b> Steering Rack	x1
	<b>SF3X10</b> M3x10 Flat Head Screw	x4	<b>AM74</b> Steering Bellcrank	x2
	<b>SH1.0</b> 6x3x1mm Spacer ( Gray )	x2	<b>ST24</b> 4,8x6mm Ball Stud	x2
			<b>ST24M</b> 4,8x8mm Ball Stud	x1

## STEP 19

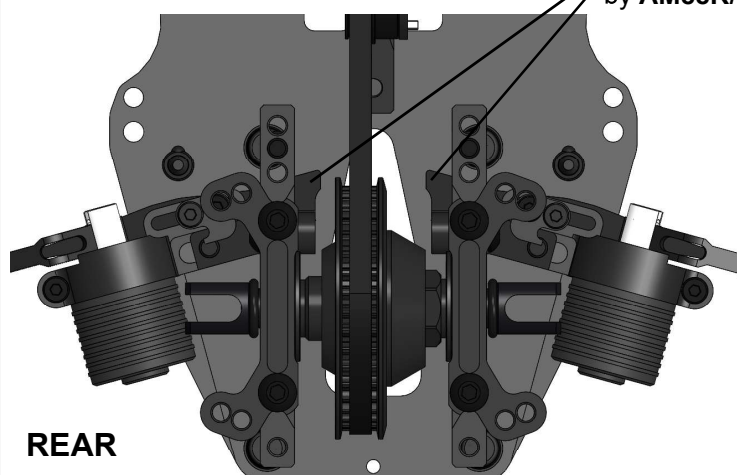


**Attention!**  
Tighten **SB3X8** screws of **AM88L/R** with 2mm Hex Driver after tightening of **SF3X10** screws.

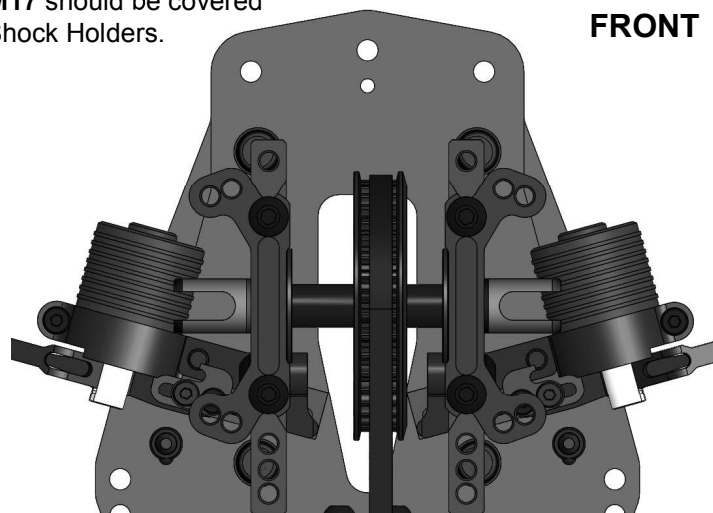


## STEP 19 FINISHED

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



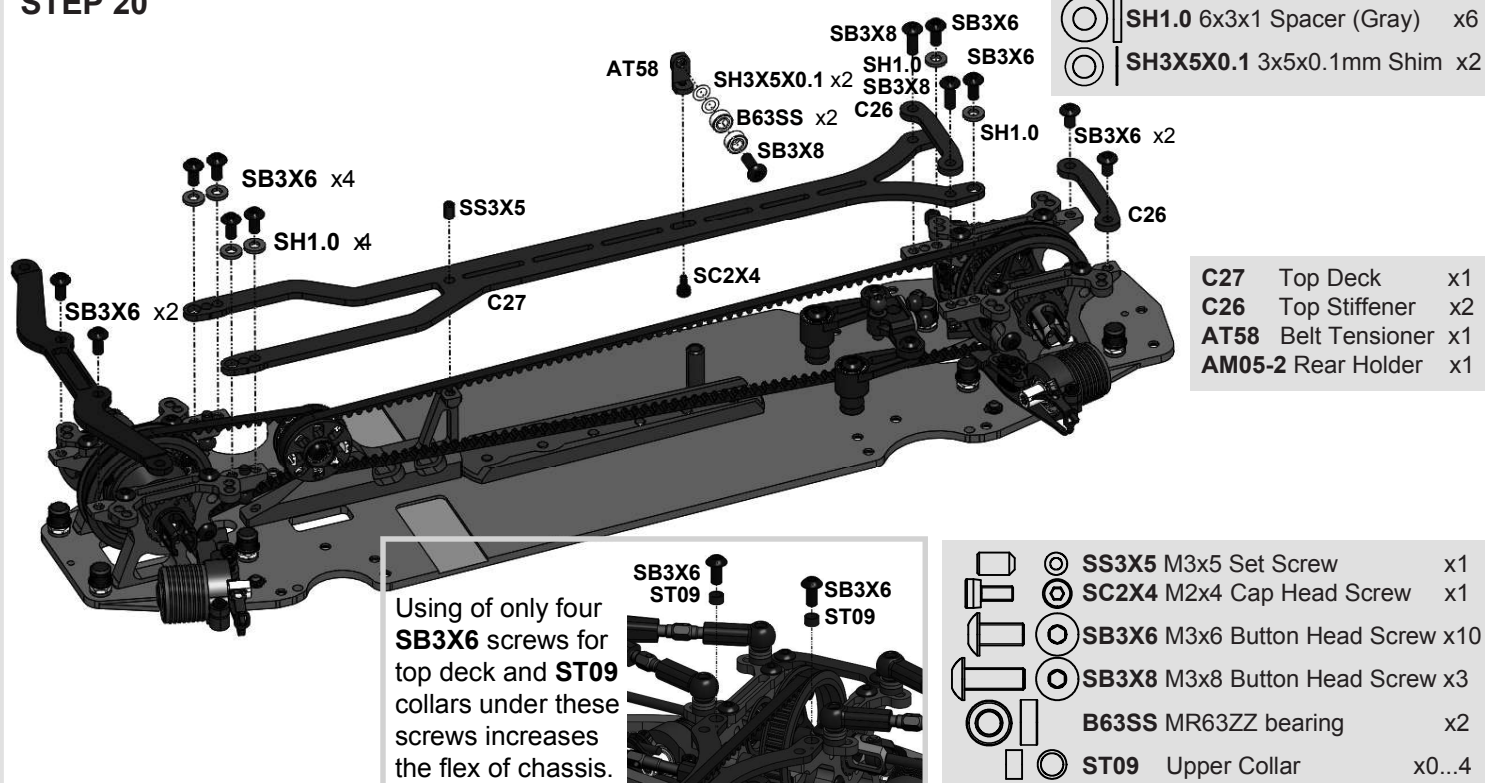
REAR



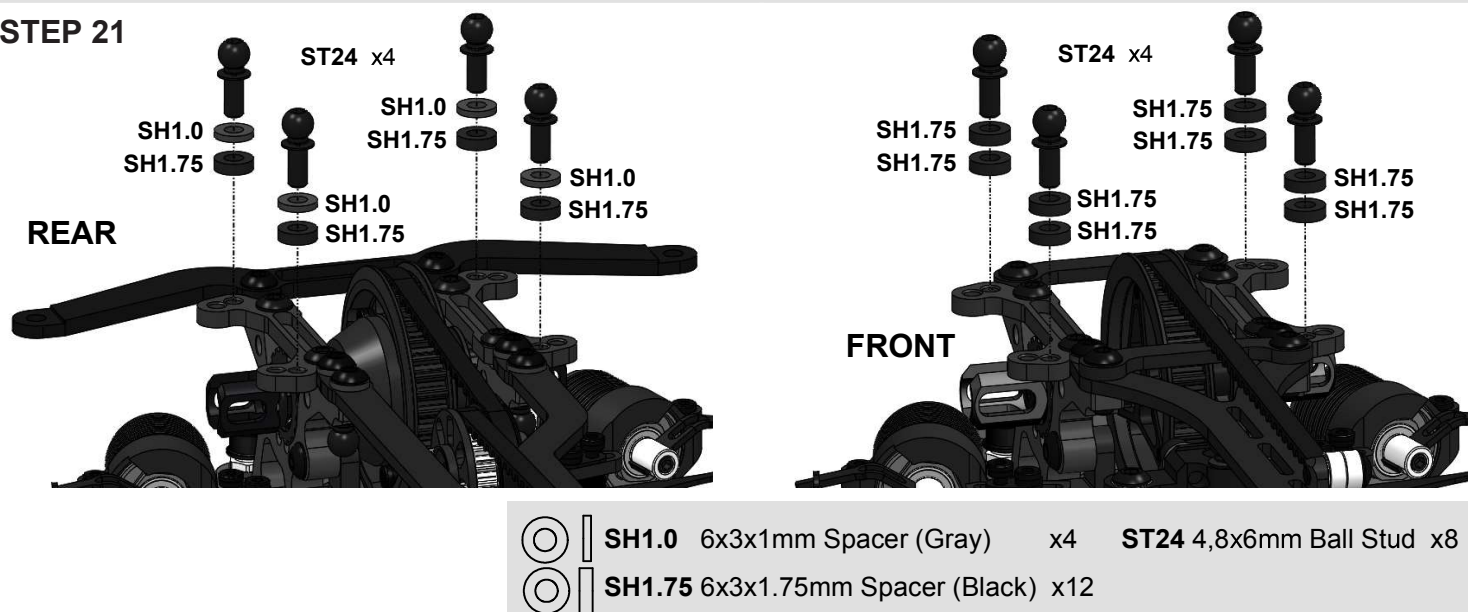
FRONT



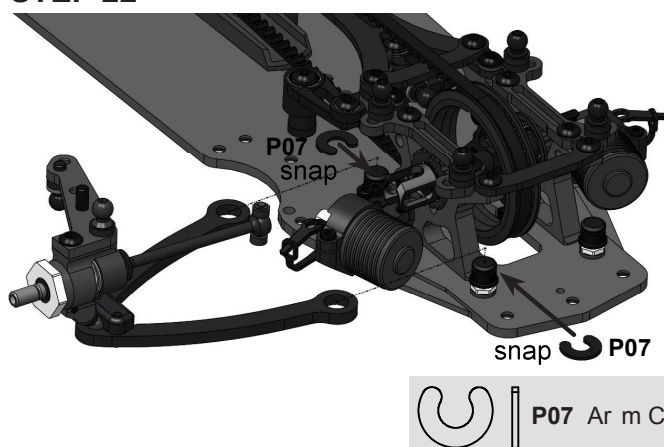
## STEP 20



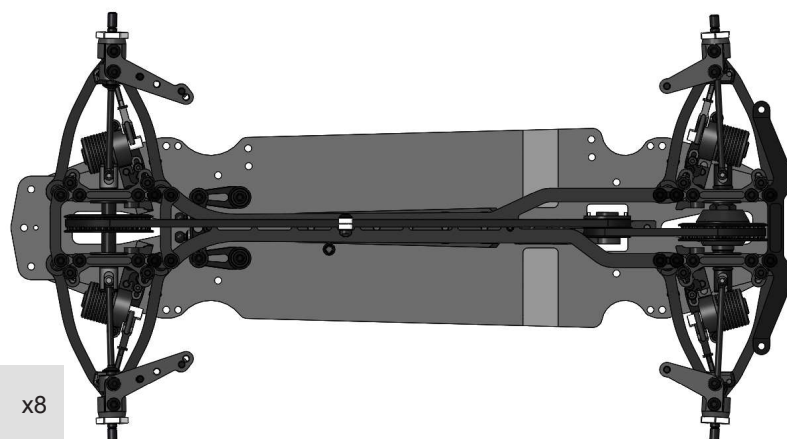
## STEP 21



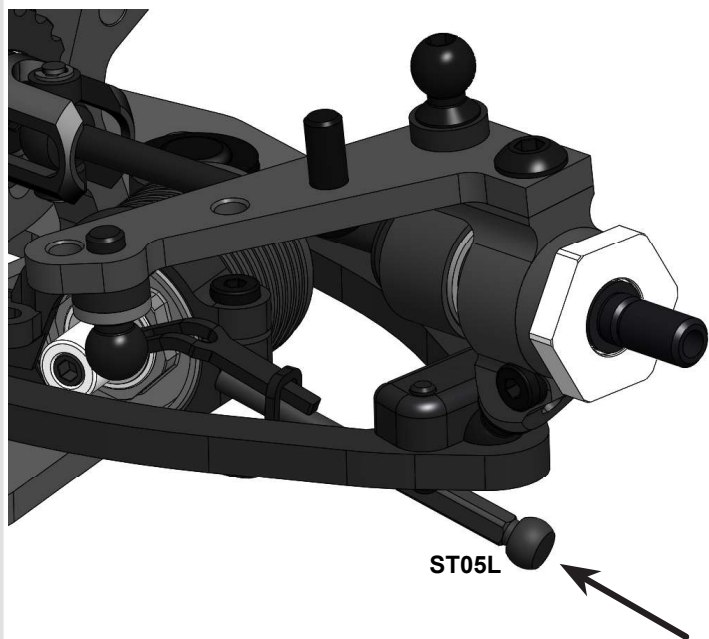
## STEP 22



## STEP 22 FINISHED

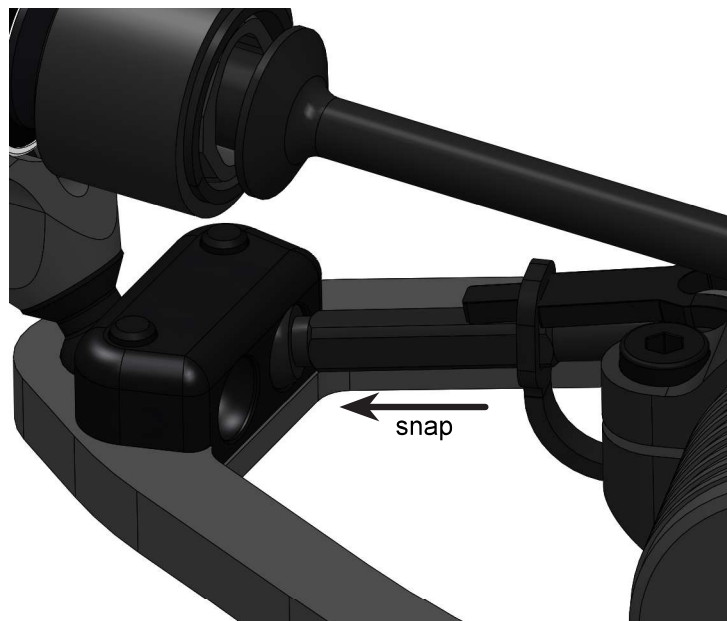


## STEP 23

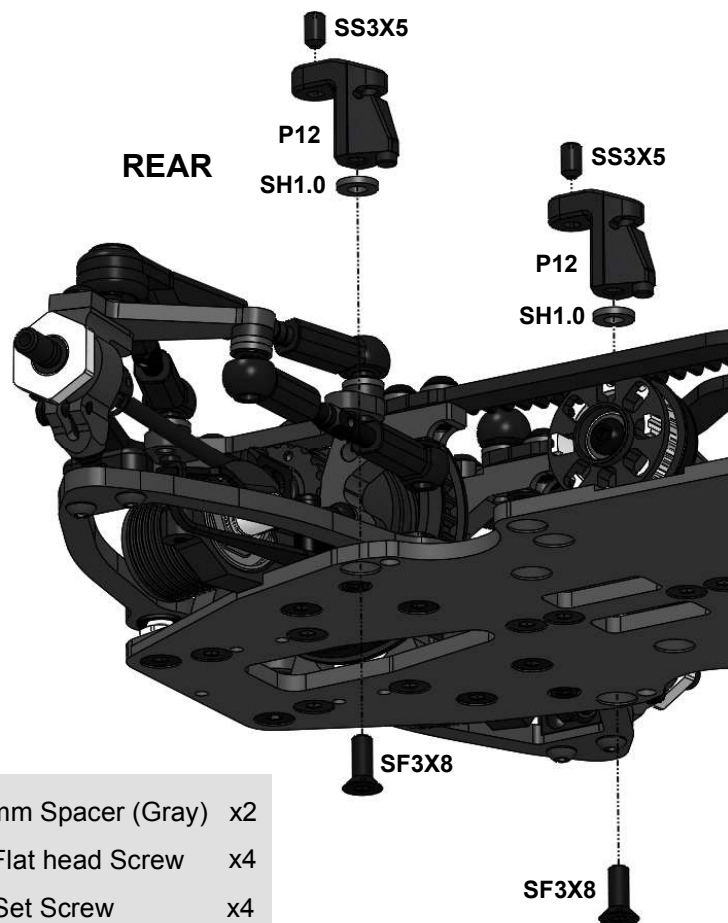
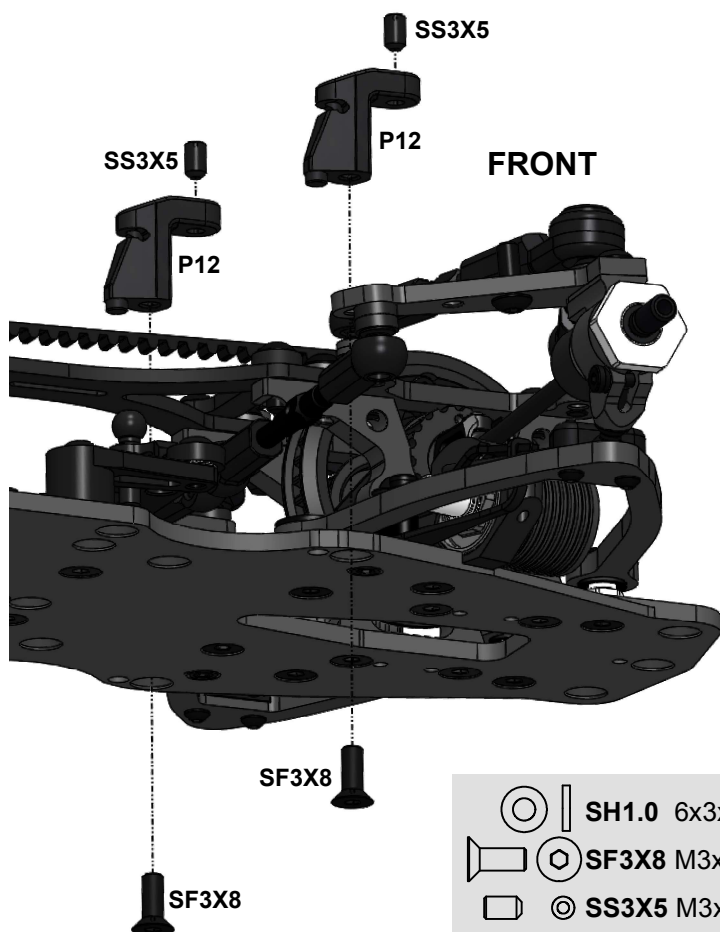


ST05L Shock Rod x4

## STEP 23 FINISHED

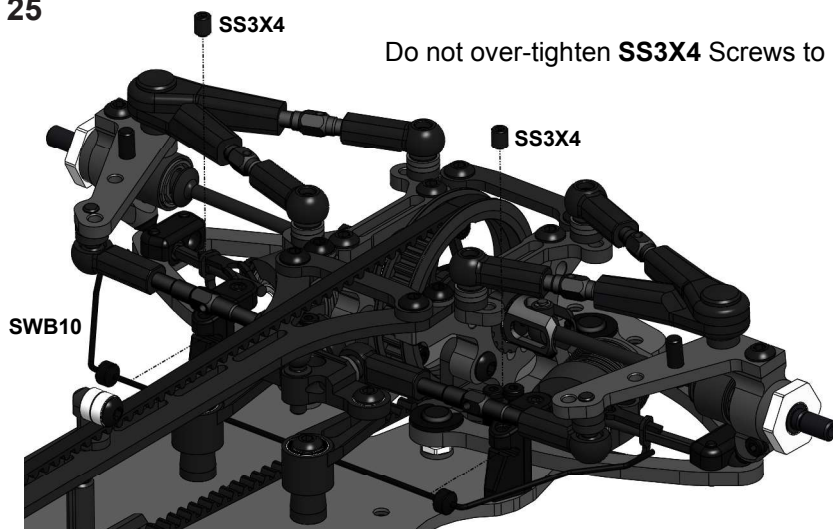


## STEP 24



	SH1.0 6x3x1mm Spacer (Gray)	x2
	SF3X8 M3x8 Flat head Screw	x4
	SS3X5 M3x5 Set Screw	x4
	P12 Sway Bar Holder	x4

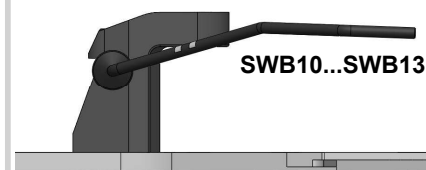
## STEP 25



Do not over-tighten **SS3X4** Screws to avoid binding of Sway Bars.

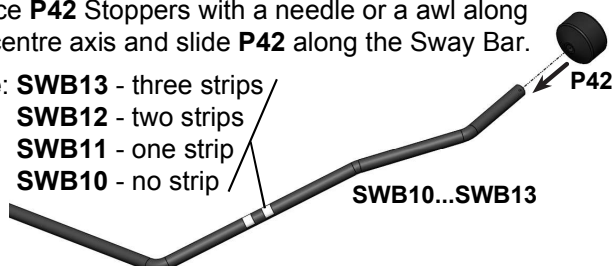
### Attention!

The deflected tips of Sway Bar should be directed downwards.

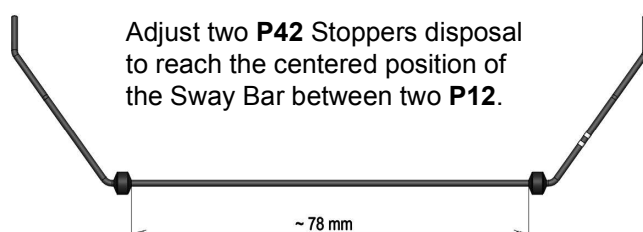


Pierce **P42** Stoppers with a needle or a awl along the centre axis and slide **P42** along the Sway Bar.

**Note:** SWB13 - three strips  
SWB12 - two strips  
SWB11 - one strip  
SWB10 - no strip



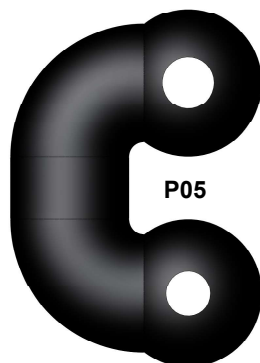
Adjust two **P42** Stoppers disposal to reach the centered position of the Sway Bar between two **P12**.



SS3X4 M3x4 Set Screw x4  
P42 Sway Bar Stopper x4

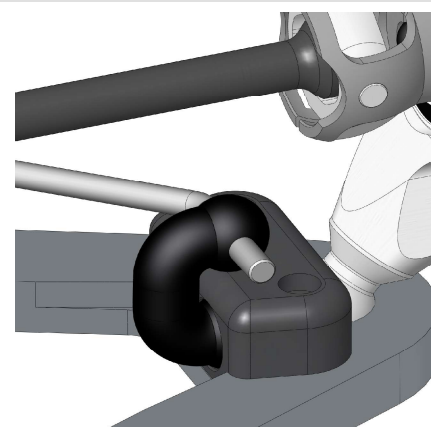
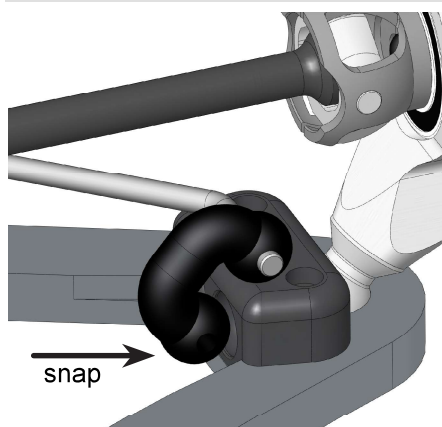
SWB10....SWB13 Sway Bar x2  
P05 Sway Bar Joint x4

## STEP 25 (cont'd)



Use bigger hole for **SB12** and **SB13** Sway Bars.

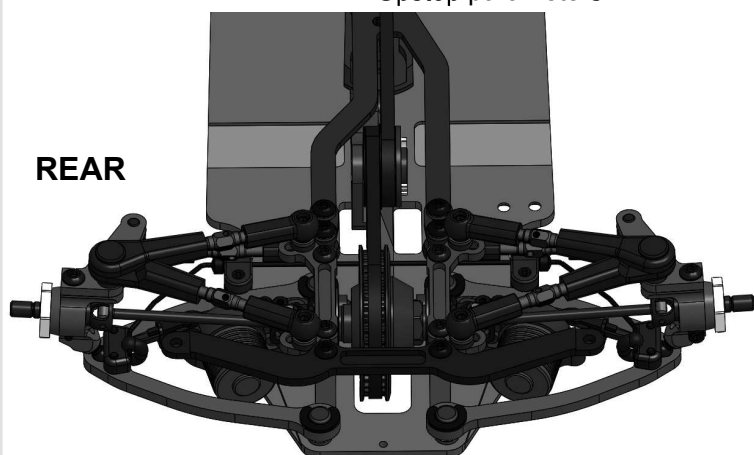
Use smaller hole for **SB10** and **SB11** Sway Bars.



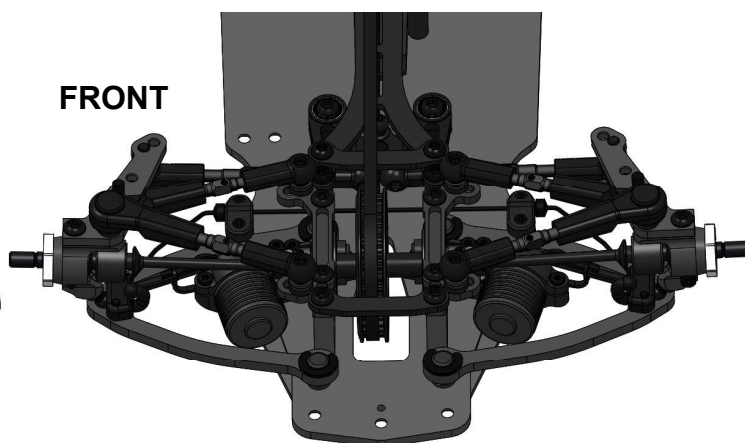
## STEP 25 FINISHED

**Attention!** **P12** Sway Bar Holders are obligatory for installation even if sway bars aren't used. **P12** Sway Bar Holders are necessary for suspension arms upward travel restriction and setting Upstop parameters.

REAR

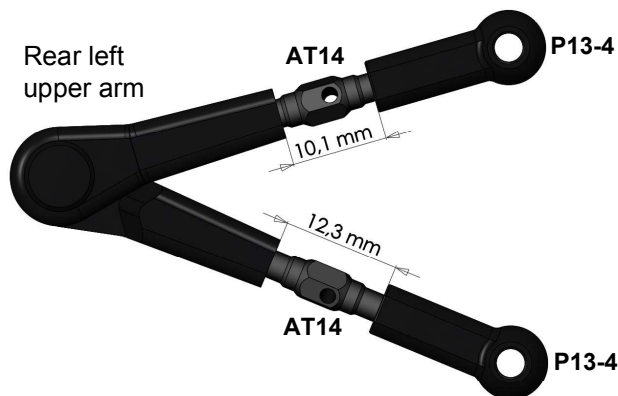
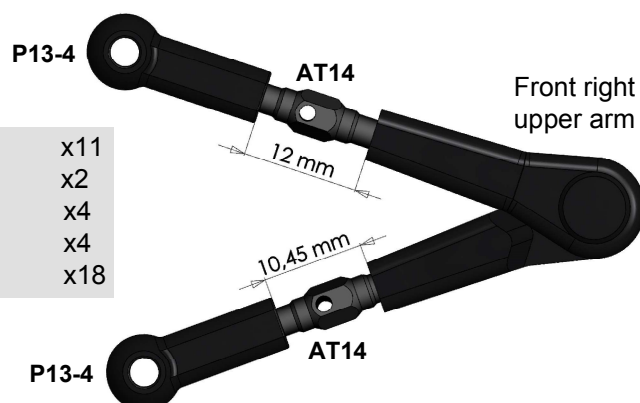
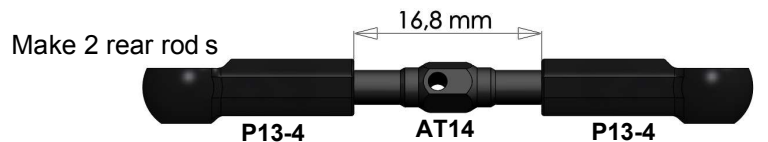
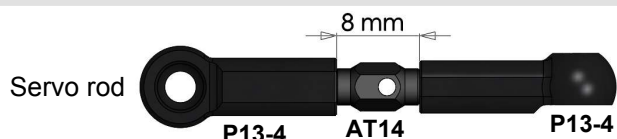
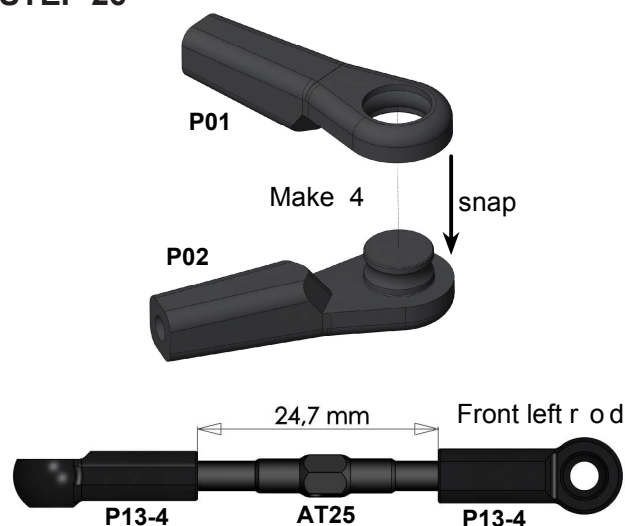


FRONT



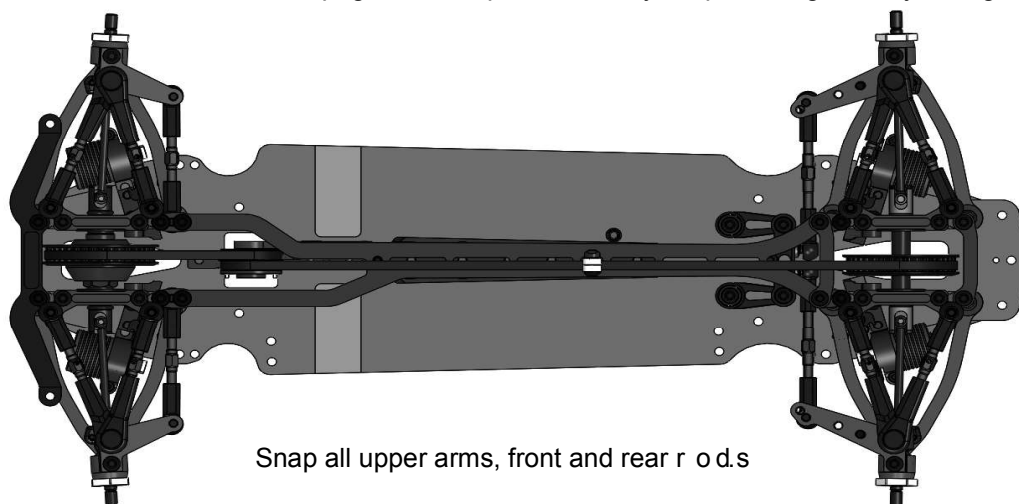


## STEP 26



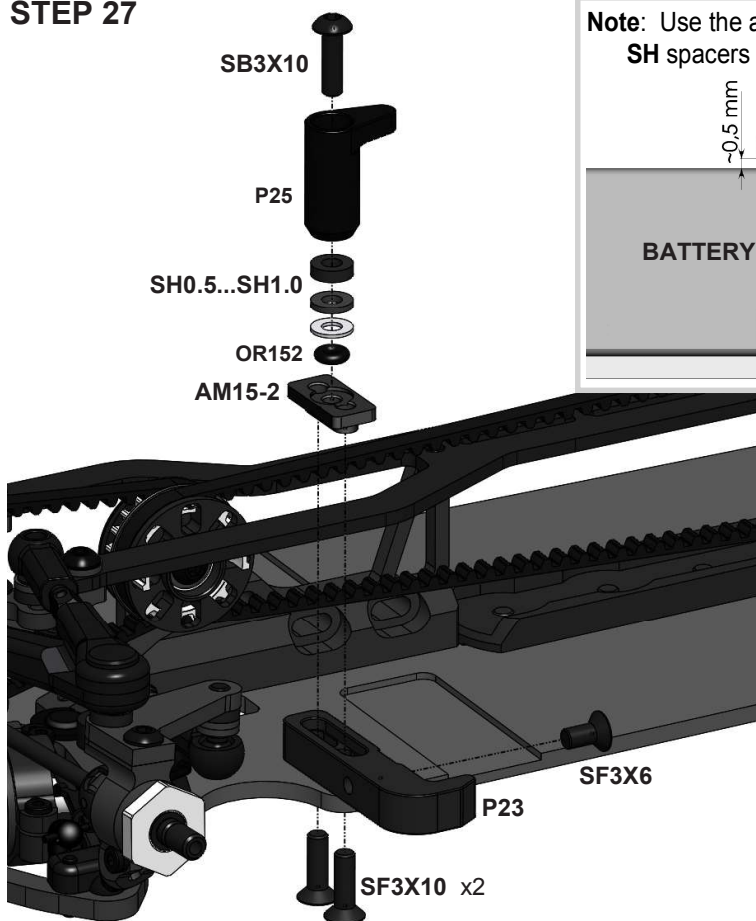
AT14	Turnbuckle	x11
AT25	Turnbuckle	x2
P01	Ball Joint 1	x4
P02	Ball Joint 2	x4
P13-3	Ball End	x18

**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.

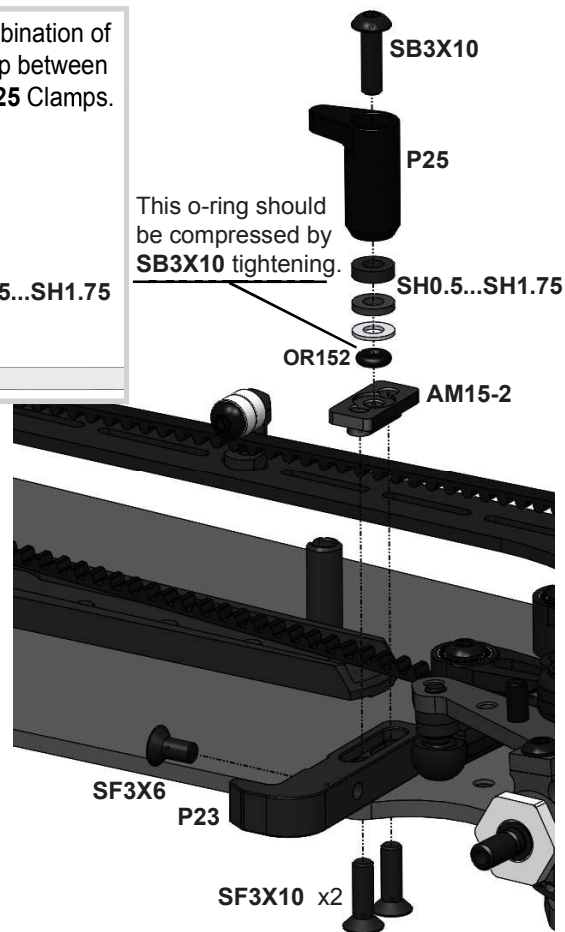
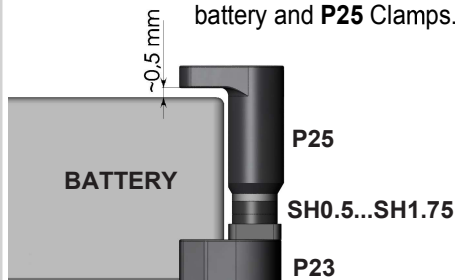


Snap all upper arms, front and rear rods

## STEP 27



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



This o-ring should be compressed by SB3X10 tightening.

### Battery Holders adjustment:

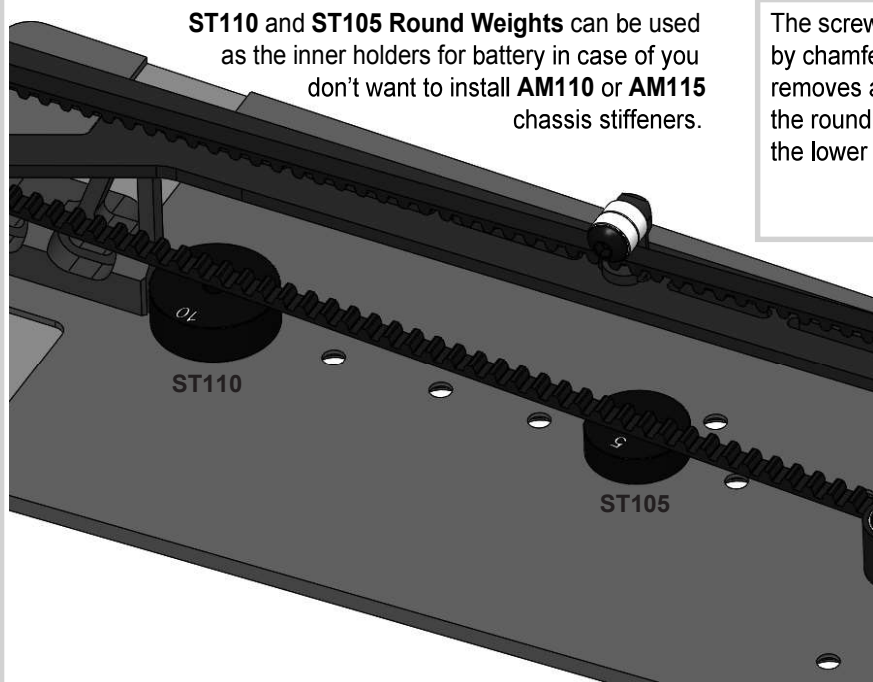
Choose the desirable battery position.

Tighten up **SF3X10** screws to fix

**P23** Battery Holders.

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

	<b>SF3X10</b> M3x10 Flat Head Screw	x4	<b>P23</b> Outer Battery Holder	x2
	<b>SF3X6</b> M3x6 Flat Head Screw	x2	<b>P25</b> Battery Clamp	x2
	<b>SB3X10</b> M3x10 Button Head Screw	x2	<b>AM15-2</b> Battery Nut	x2
	<b>OR152</b> 2x1.5mm O-Ring	x2	<b>AM69</b> MM2 Battery Support	x1
	<b>SH0.5 SH1.0 SH1.75</b> Spacers			



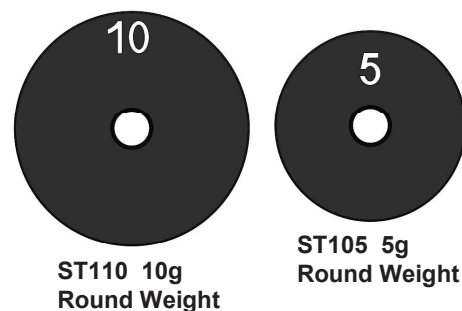
**ST110** and **ST105** Round Weights can be used as the inner holders for battery in case of you don't want to install **AM110** or **AM115** chassis stiffeners.

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

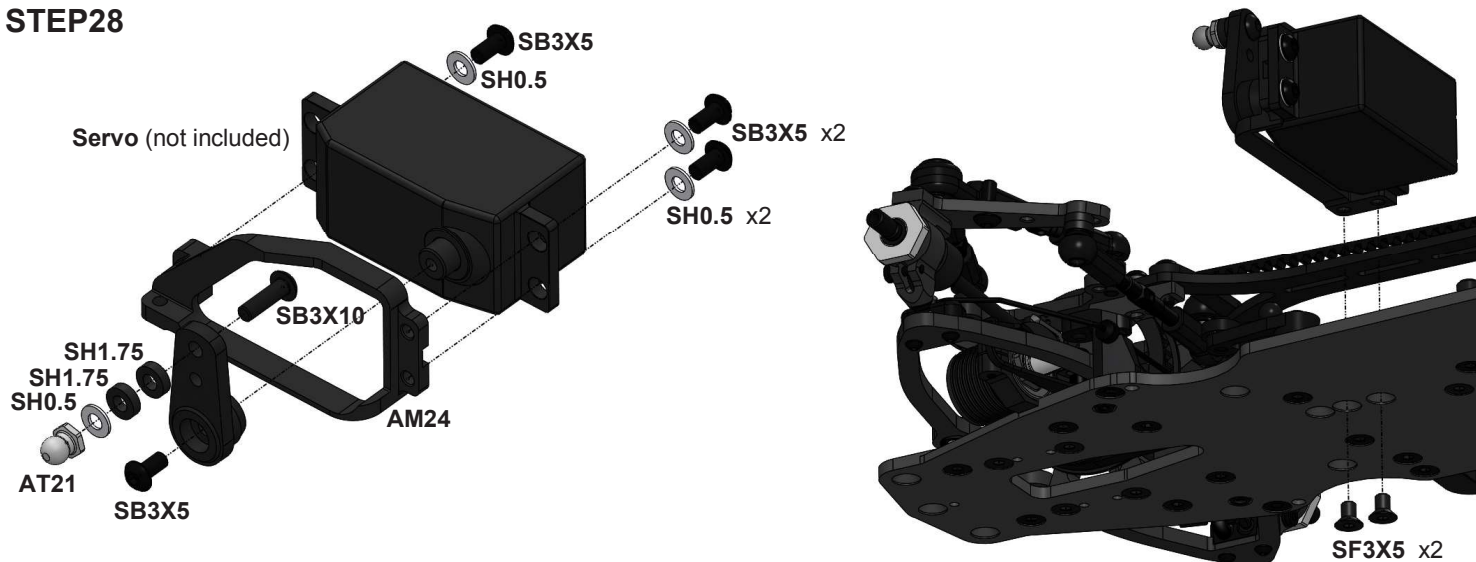
**ST110** or **ST105**



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



## STEP28

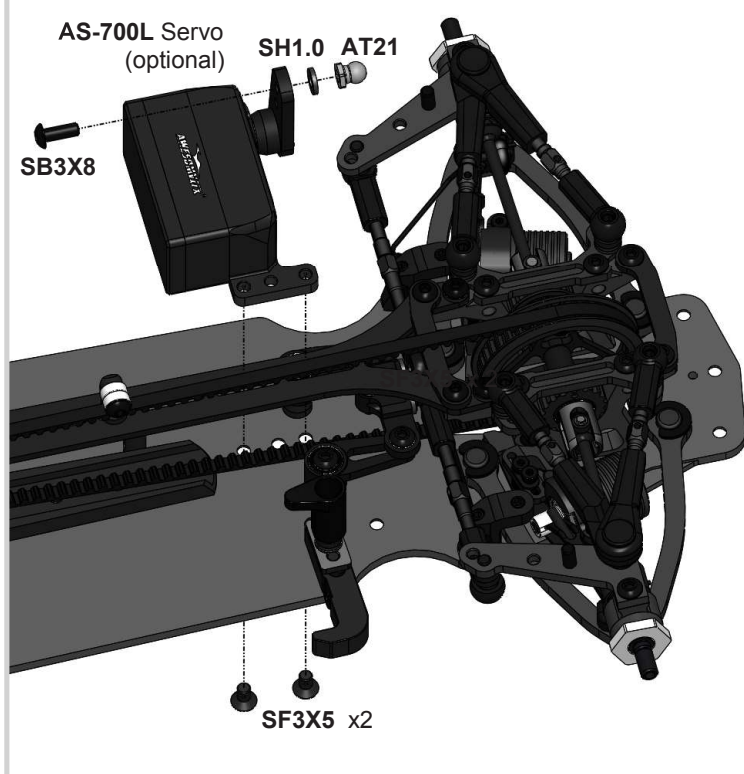


- |  |   |    |                                     |
|--|---|----|-------------------------------------|
|  | <b>SB3X10</b> M3x10 Button Head Screw   | x1 |                                     |
|  | <b>SF3X5</b> M3x5 Flat Head Screw       | x2 |                                     |
|  | <b>SB3X5</b> M3x5 Button Head Screw     | x4 | <b>AT21</b> Pivot Ball x1           |
|  | <b>SH0.5</b> 6x3x0.5mm Spacer (Silver)  | x4 | <b>AM24</b> Central Servo Holder x1 |
|  | <b>SH1.75</b> 6x3x1.75mm Spacer (Black) | x4 |                                     |

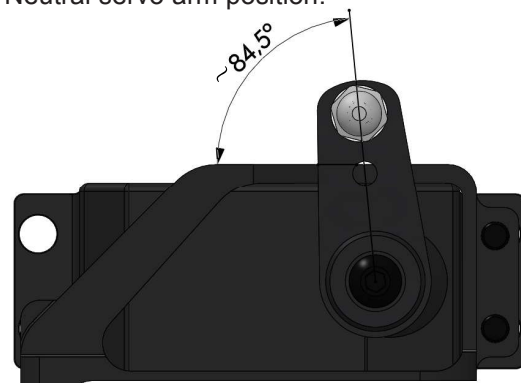


**Note:** Recommended length of servo arm is 17,5-18,5mm. We highly recommend our **P40F** and **P40K** Servo Arms. We also recommend our **AS-700L** Brushless Low-Profile Car Servo. Awesomatix **AS-700L** servo has an integrated servo holder and doesn't required **AM24** or any others servo holders for mounting on the chassis.

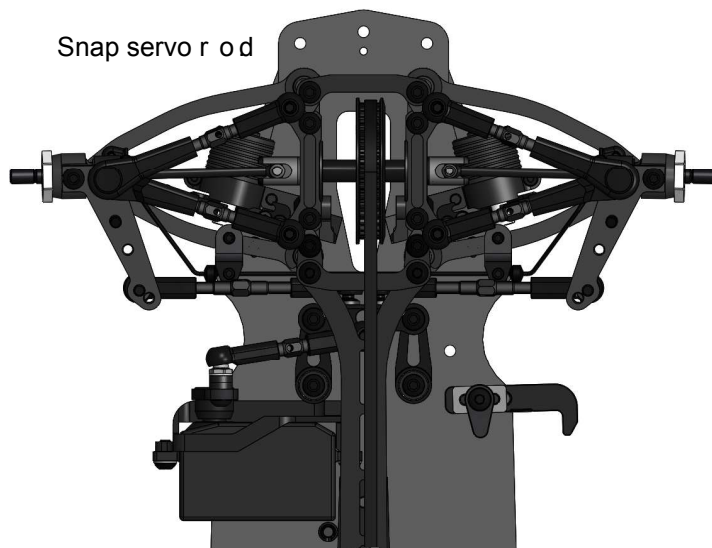
Awesomatix **AS-700L** servo installation.



**Attention!** Neutral servo arm position.

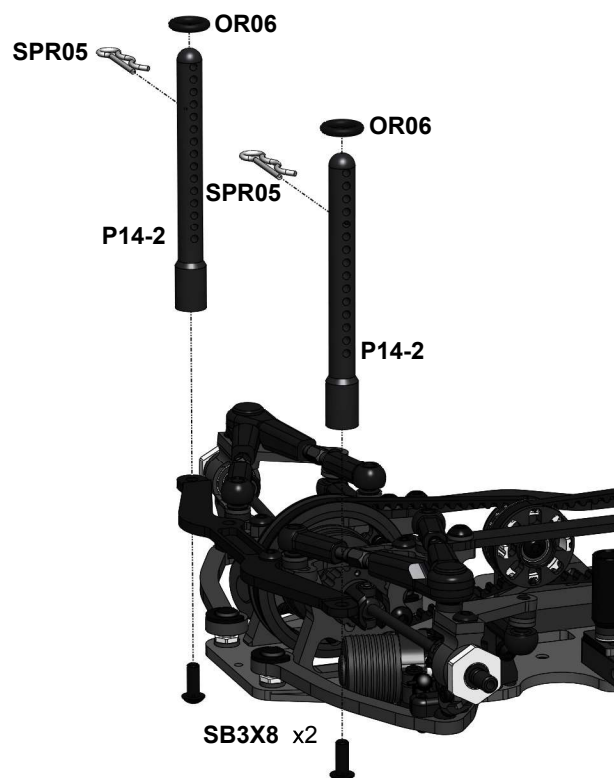
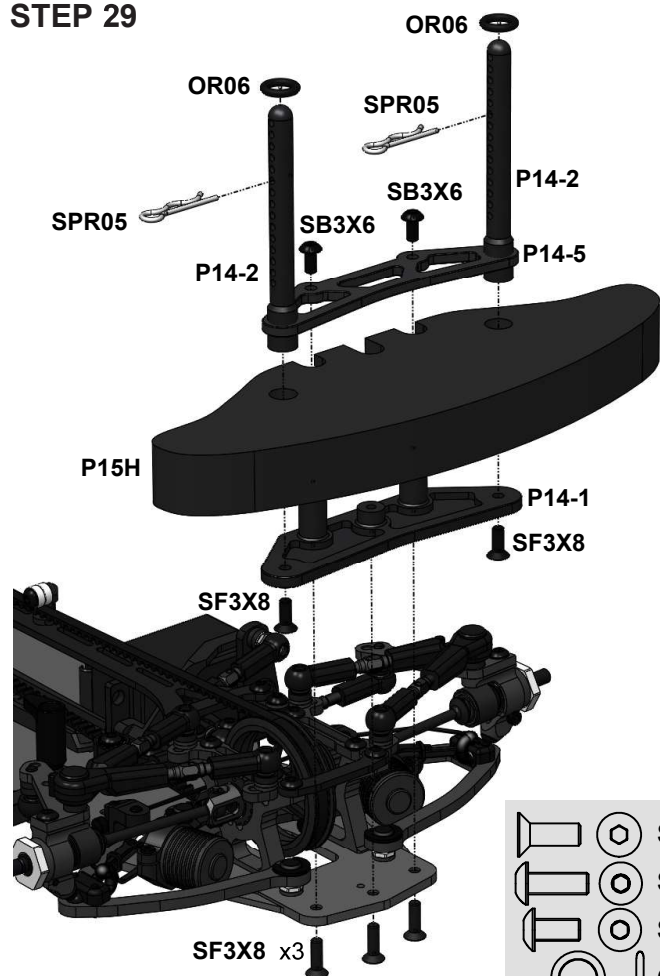


Snap servo rod



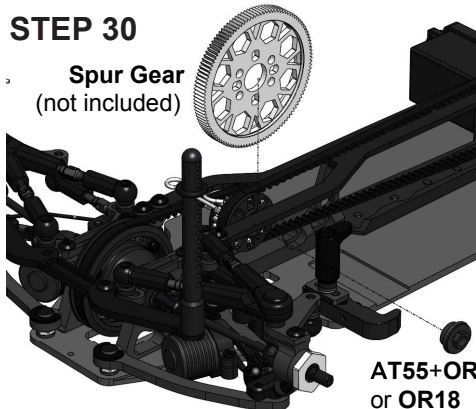


## STEP 29

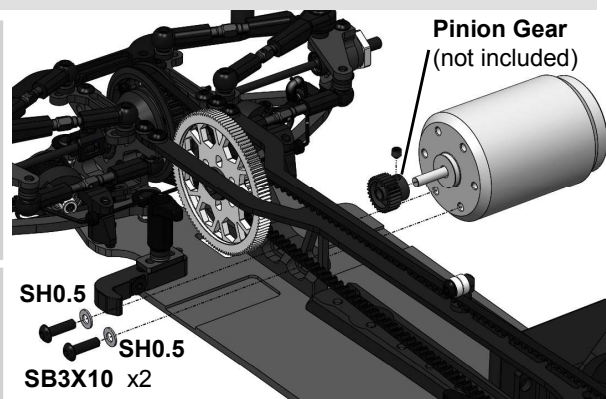
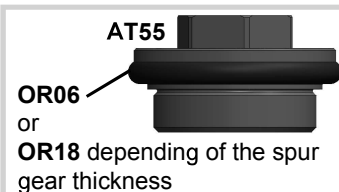
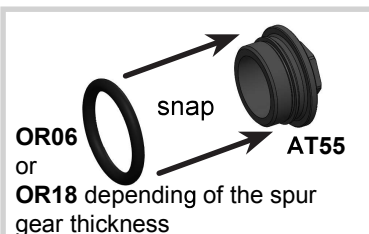


		SF3X8 M3x8 Flat Head Screw	x5	P14-1	Lower Bumper	x1
		SB3X8 M3x8 Button Head Screw	x2	P14-2	Body Post	x4
		SB3X6 M3x6 Button Head Screw	x2	P14-5	Upper Bumper	x1
		OR06 5mm O-Ring	x4	P15H	Foam Bumper	x1
				SPR05	Body Clip	x4

## STEP 30



**Attention!** Please use  $\leq 4,5\text{mm}$  thick spur gears with 2-2,6mm thickness of the center area.



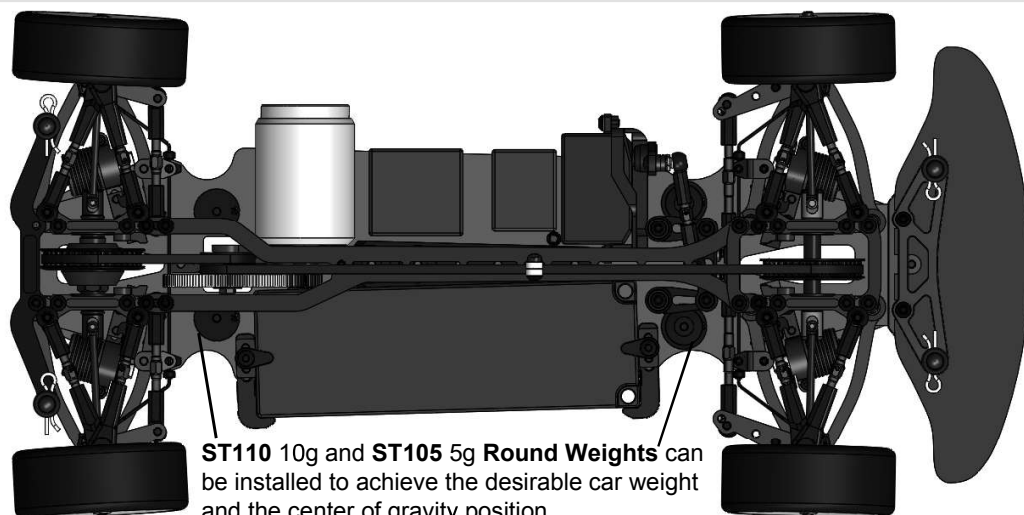
**Attention!** Please use pinion gears with thickness of the teethed area  $\leq 4,5\text{mm}$ .

## STEP 31

### FINAL ASSEMBLY

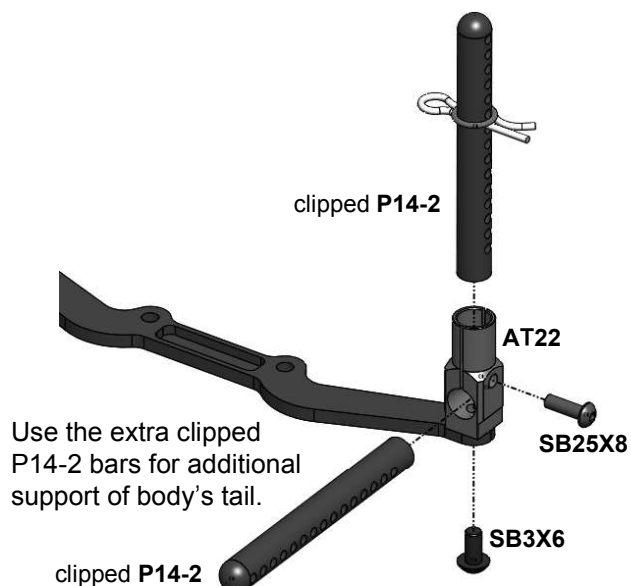
#### Install:

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

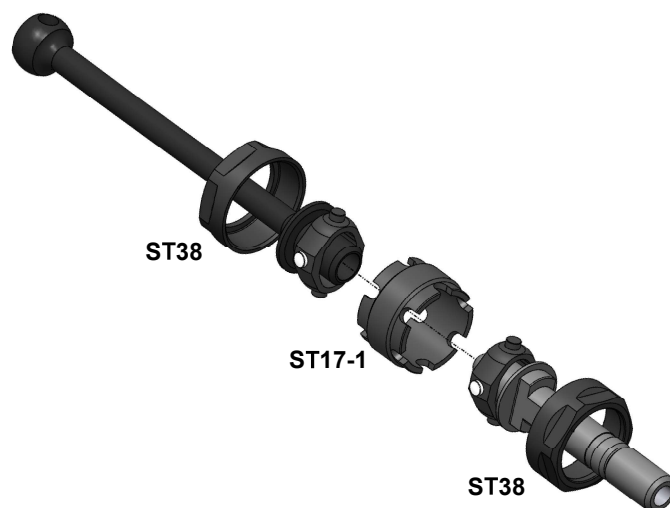


ST110 10g and ST105 5g Round Weights can be installed to achieve the desirable car weight and the center of gravity position.

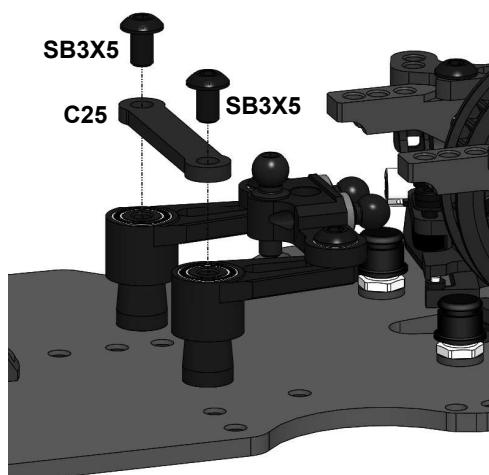
## AT22 Rear Body Holder (optional)



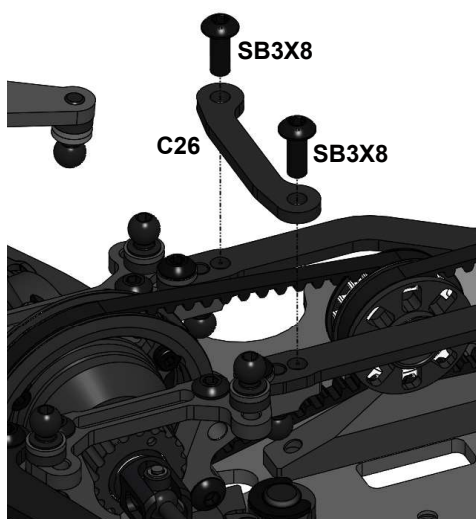
## ST17-1-S Universal Ring Set (optional)



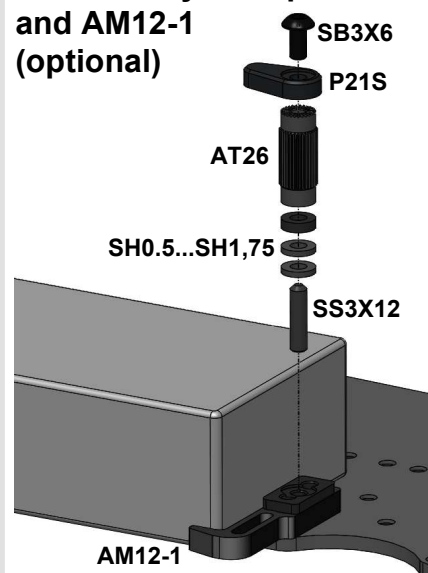
## C25 Steering Stiffener (optional)



## Additional C26 Top Stiffener (optional)

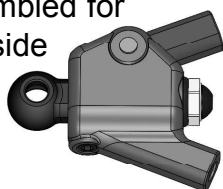


## BC1 Battery Clamp Set and AM12-1 (optional)

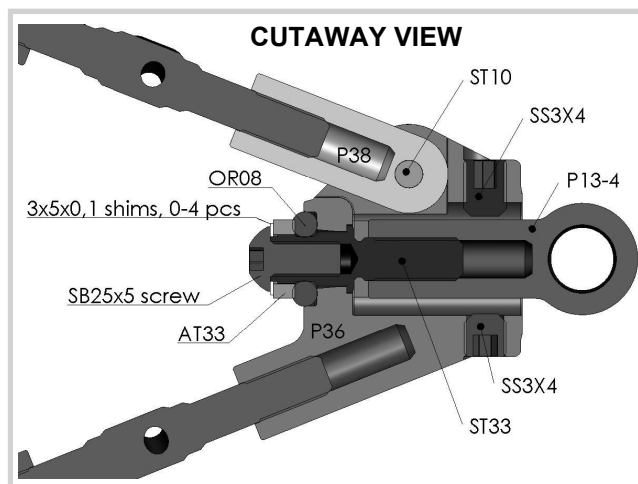
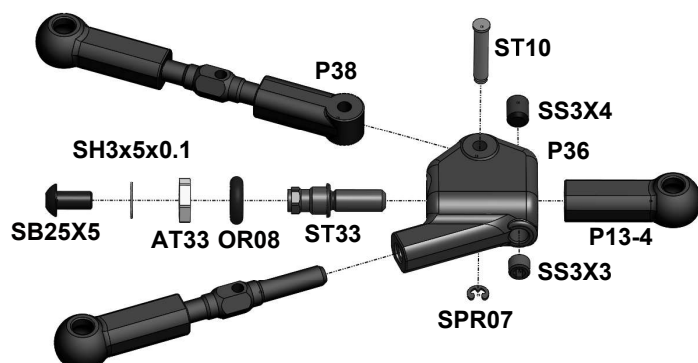
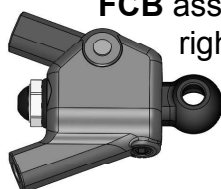


## FCB Flexible Caster Block (optional)

FCB assembled for left side

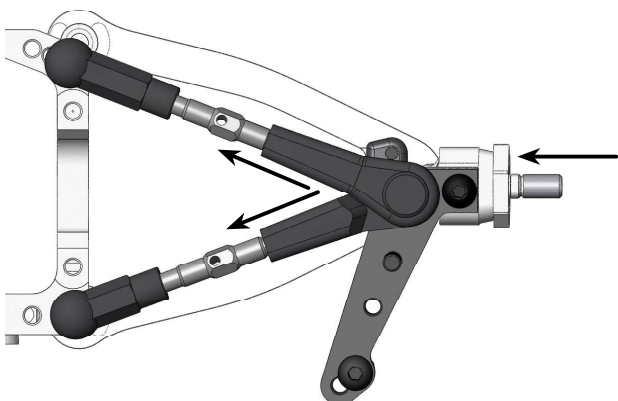


FCB assembled for right side

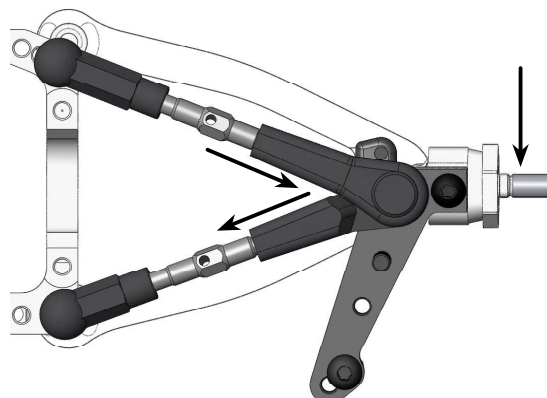


## SUSPENSION SETTING TECHNIQUE

**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.

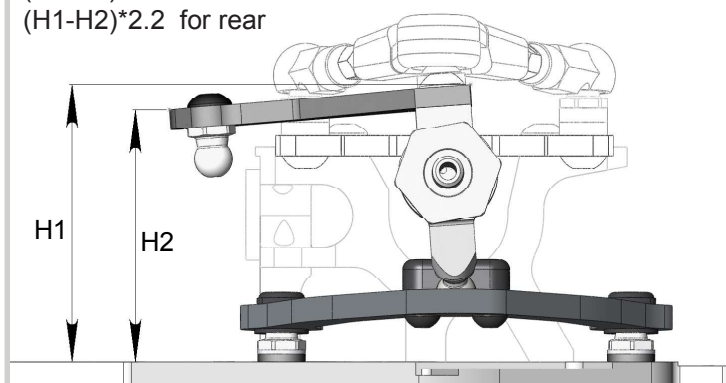


**Caster adjustment rule:** Simultaneous front upper rod 0.5mm elongation and rear upper rod 0.5mm shortening adds 2.5° of caster at constant camber.

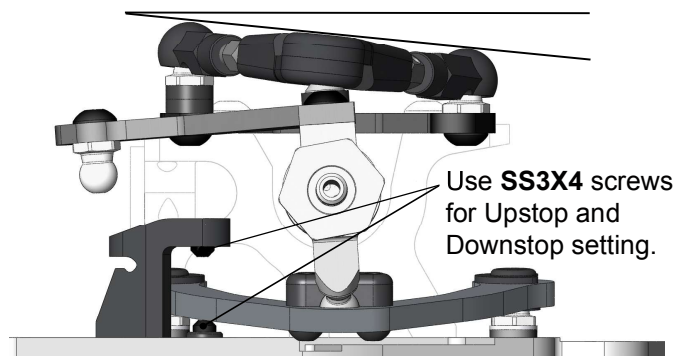


### Caster measuring:

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

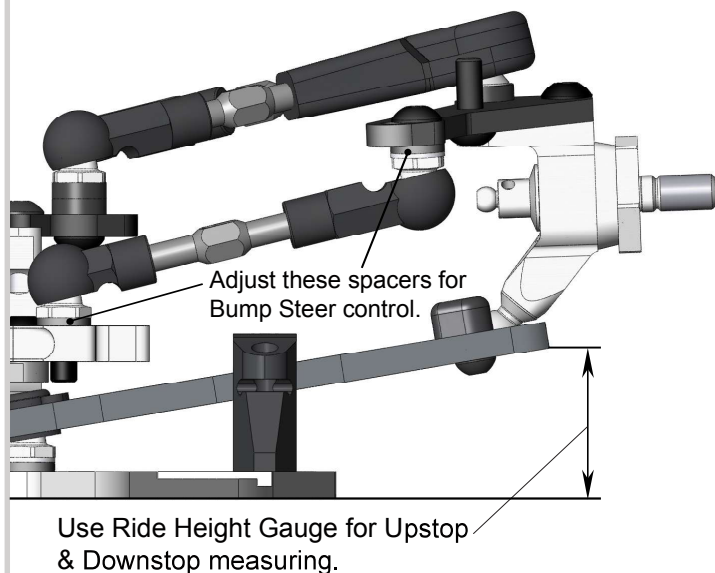


**Reactive Caster** setting is possible.



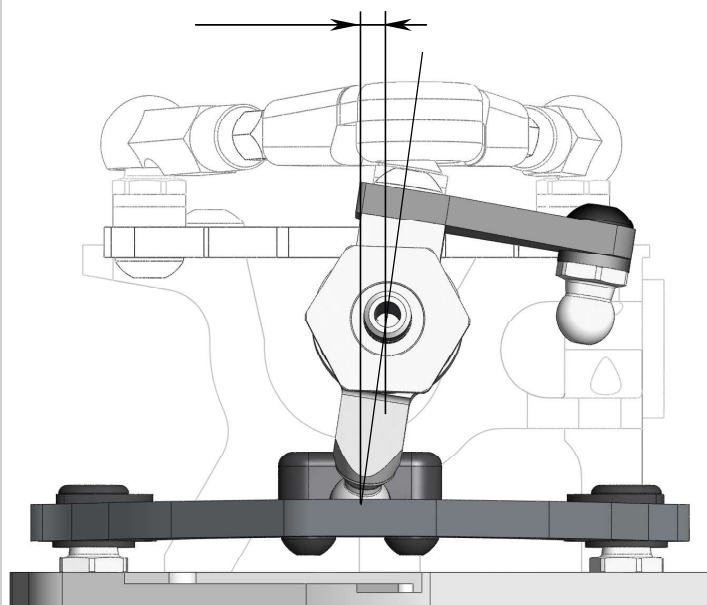
### Roll Center adjustment:

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.





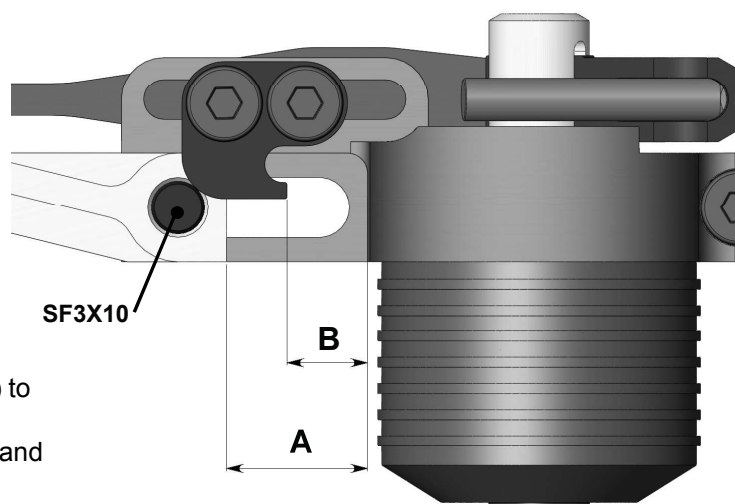
## SHOCK SETTING TECHNIQUE

**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.

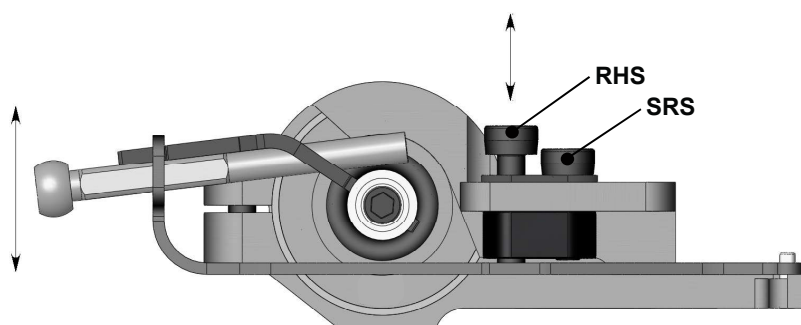


### 2. Shock Spring preload setting

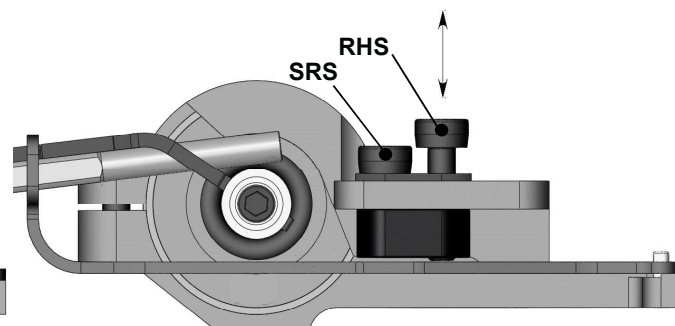
Turn IN (CW) **RHS** Screw to increase spring preload.  
Turn OUT (CCW) **RHS** Screw to decrease spring preload.  
Use Spring preload setting to adjust Ride Height value.

### 3. SRS/RHS Screws arrangements change

The reverse arrangement of these screws is possible also.

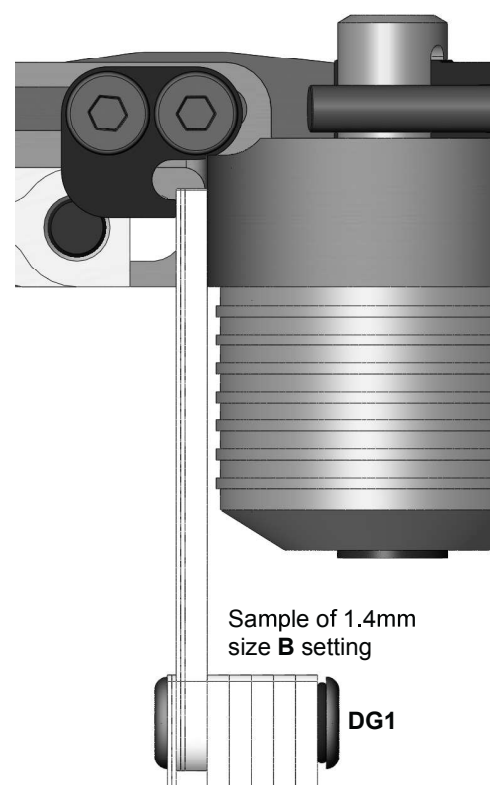
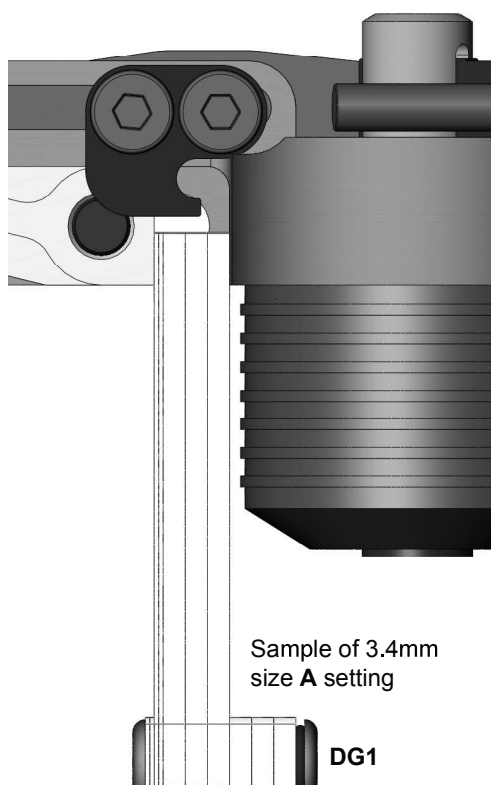
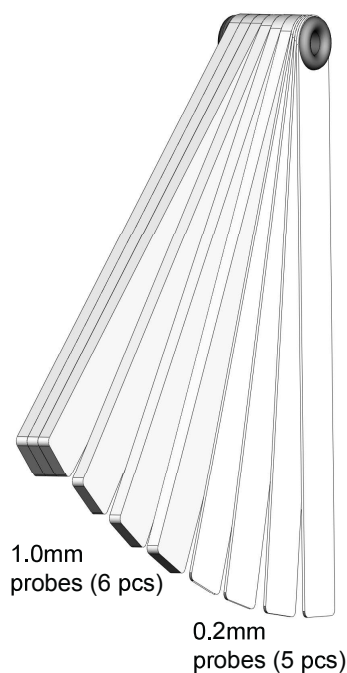


**SRS/RHS Screws arrangement I**



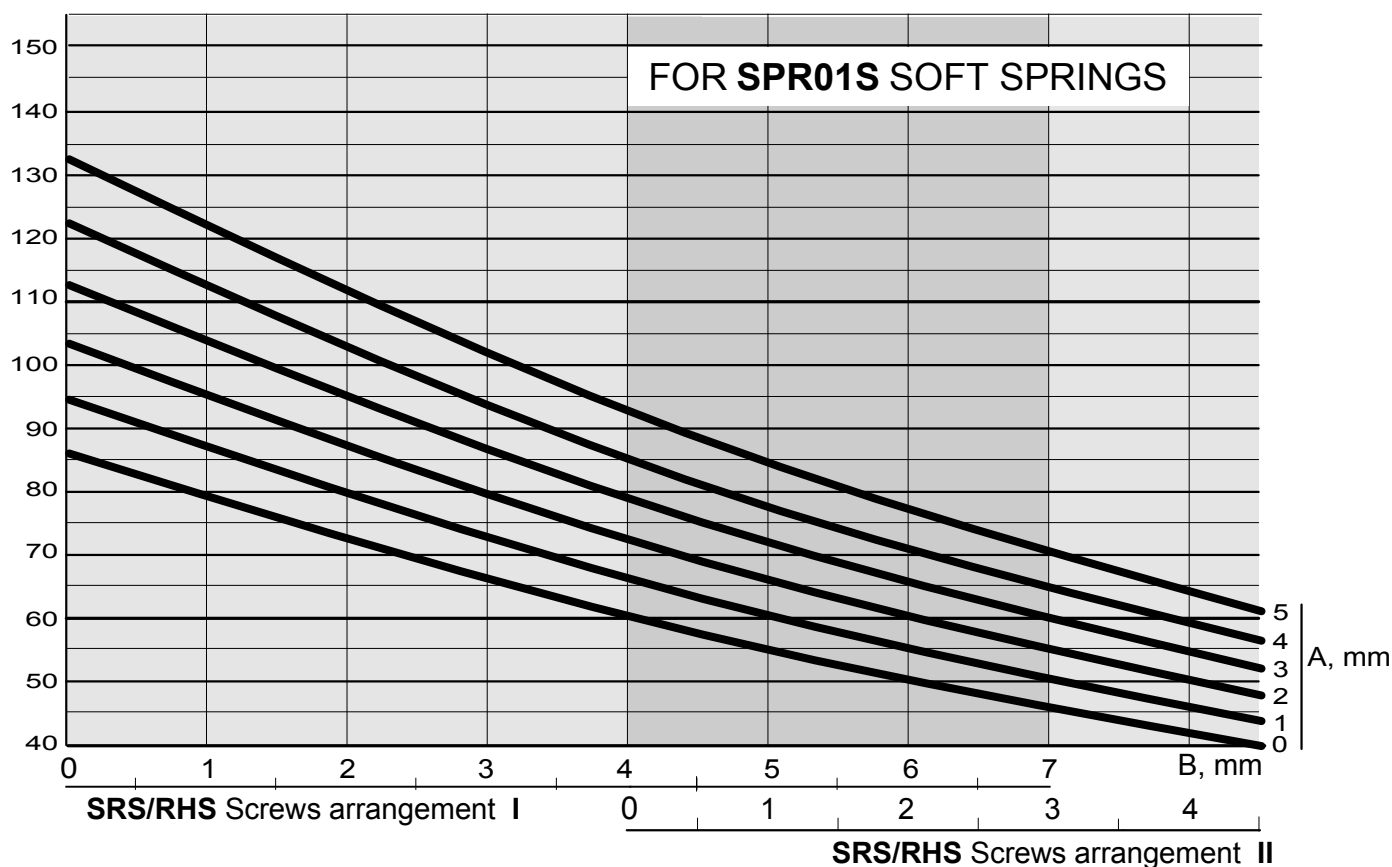
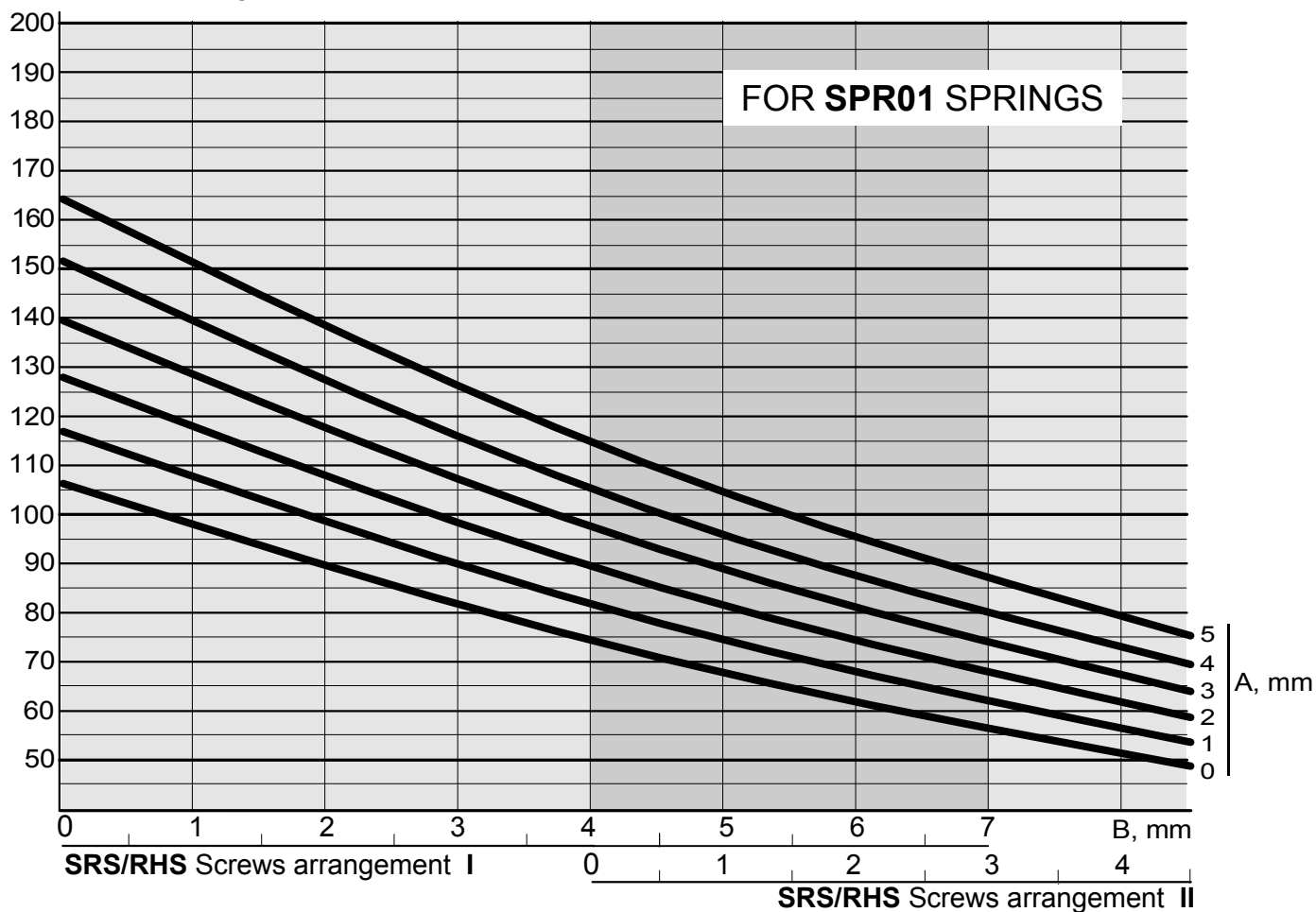
**SRS/RHS Screws arrangement II**

### 4. Using of DG1 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)





NAME STANDARD INITIAL CARPET SETUP

COUNTRY

RACE

TRACK

DATE

TEMP.°C AIR / TRACK

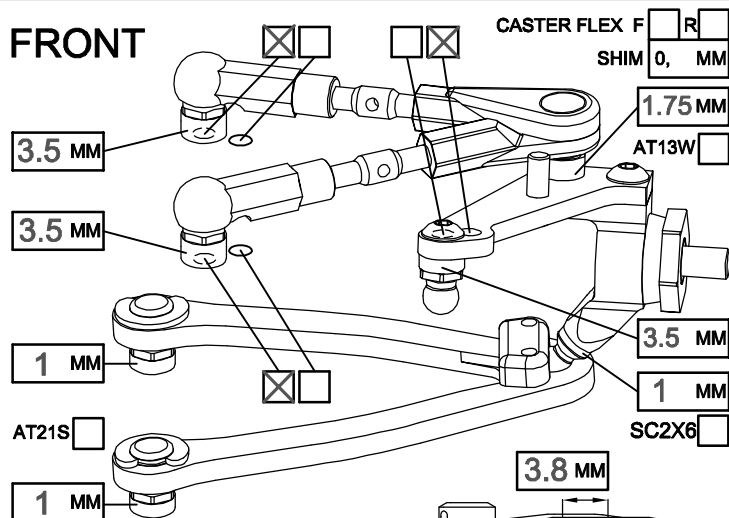
/

CARPET ☒ ASPHALT ☐

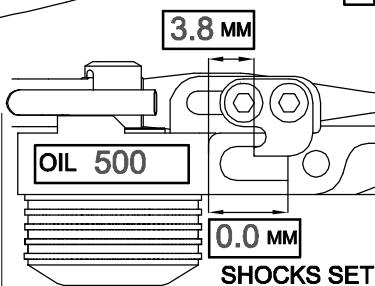
TRACK CONDITION TECHNICAL ☐ MIXED ☒ FAST ☐

TRACTION LOW ☐ MEDIUM ☒ HIGH ☐

## FRONT



CAMBER ANGLE / ° 2.0  
 CASTER ANGLE / ° 4.0  
 TOE ANGLE / ° 1.0 out  
 RIDE HEIGHT / MM 5.2  
 DOWNSTOP / MM 5.6  
 UPSTOP / MM 15  
 STABILIZER Ø / MM 1.1  
 LOW ARM C04AL ☒  
 STEERING ARM STD ☒  
 WHEEL SPACER / MM 0



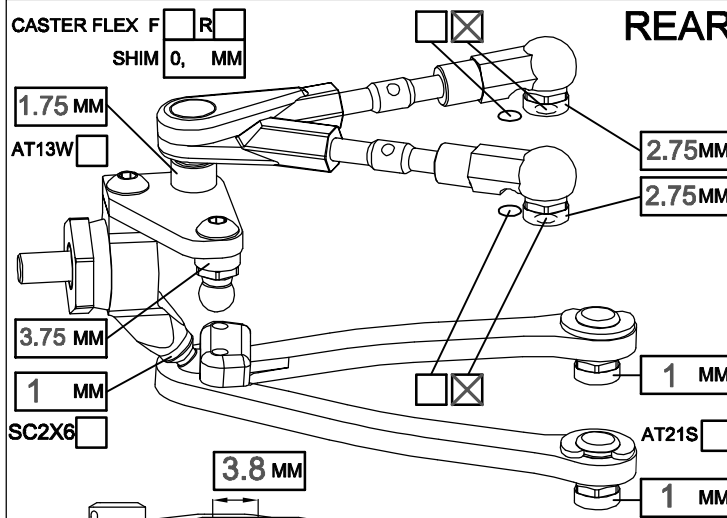
ROTOR STD ☒  
 SPRING STD ☒  
 DAMPER D2.1 ☒  
 ACTION SYM. ☒  
 SRS/RHS ARR. I ☒

FRONT DRIVE ☐ GD3 ☐ SPOOL ☒ GD2B ☐

DIFF OIL ☐ DIFF WASHERS ☐

DOGBONE DRIVE ST17-1 ☐ ST11 ☒ ST12 ☐ BB ☐ ST02 ☐

## REAR



CAMBER ANGLE / ° 2.0  
 CASTER ANGLE / ° -4.0 short  
 TOE ANGLE / ° 2.5  
 RIDE HEIGHT / MM 5.4  
 DOWNSTOP / MM 4.4  
 UPSTOP / MM 15  
 STABILIZER Ø / MM 1.1  
 LOW ARM C04AL ☒  
 STEERING ARM STD ☒  
 WHEEL SPACER / MM 0

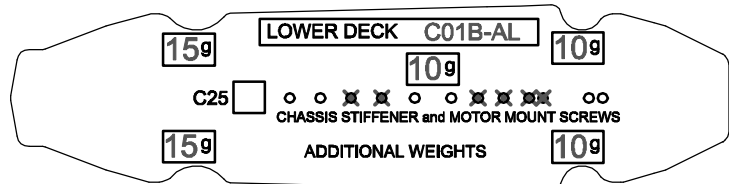
ROTOR STD ☒  
 SPRING STD ☒  
 DAMPER D2.1 ☒  
 ACTION SYM. ☒  
 SRS/RHS ARR. I ☒

REAR DRIVE ☐ GD3R ☐ GD2B ☒

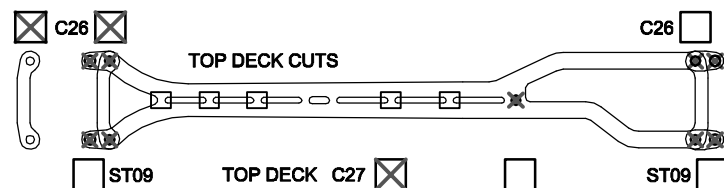
DIFF OIL 5000 DIFF WASHERS standard WA03

DOGBONE DRIVE ST11 ☒ ST12 ☐ BB ☐ ST17-1 ☐ EVD ☐

## FRAME FLEX SETTING



CHASSIS STIFFENER AM110 ☐ AM115 ☒ ST130 ☐



COMMENTS

FL	FR	RL	RR	TIRES	FRONT	REAR
				BRAND		
				INSERTS		
				WHEELS		
				ADDITIVE		

MOTOR LATERAL SHIFT / MM	0	MOTOR
ACKERMANN SHIMS / MM	1	SERVO
DRIVE RATIO		ESC
SPUR	PINION	BATTERY
BODY		RECEIVER
WING		

BEST LAPTIME QUALIF. / FINAL POSITION /

ESC SETTING

COMMENTS / IMPRESSIONS

CONTACT

## Standard Spare Parts

Parts#	Description
AM05-2	Rear Holder
AM06S-M	Steering Block
AM14-1	Steering Arm
AM15-1	Battery Nut
AM17L	Damper Holder L
AM17R	Damper Holder R
AM19-2	Upper Arm Holder
AM23-1	Rear Steering Arm
AM24	Central Servo Holder
AM74	Steering Bellcrank
AM77	Motor Mount
AM78	Bulkhead
AM79	Steering Rack
AM88R	Shock Holder R
AM88L	Shock Holder L
AM110	Chassis Stiffener Low
AM115	Chassis Stiffener High
AT03B	Spool Axle
AT06	Antenna Holder
AT13	Wheel Hex
AT14	Turnbuckle
AT21	Pivot Ball
AT25	Turnbuckle Long
AT52	Bellcrank Post
AT55	Spur Nut
AT58	Belt Tensioner
AT62	Spur Holder
AT67	Pulley Washer
AT120	20T Alloy Pulley
AT123B	GD2B Case1
AT124B	GD2B Case2
DT08	Pulley Flange
DT10	Bearing Housing
ST01	Front Axle
ST02	Rear Axle
ST03	Ball Stud
ST05L	Shock Rod
ST09	Upper Collar
ST10	2mm Pin
ST11	Bushing R
ST13	Front Universal Bone
ST14	Rear Universal Bone
ST16	U-Joint Cross
ST17	Universal Ring
ST23	GD Outdrive
ST24	4,8x6mm Ball Stud
ST24M	4,8x8mm Ball Stud
ST31	GD2 Output Axle
ST37	Spool Outdrive
ST105	Round Weight 5 g
ST110	Round Weight 10 g
G07	GD2 Satellite Gear
G08	GD2 Bevel Gear
D2.1	D2.1 Damper
P01	Ball Joint-1
P02	Ball Joint-2
P03	Arm Ball Cap
P04	Arm Hasp
P05	Sway Bar Joint
P06-1	Downstop Collar
P07	Arm Clip
P09	Shock Screw Holder
P12	Sway Bar Holder
P13-4	Ball End
P14	Bumper Set
P15H	Foam Bumper Hard
P16	Lock Ring
P20	Front Universal Ring

Parts#	Description
P23	Outer Battery Holder
P25	Battery Clamp
P39	GD2 Cross Pin
P42	Sway Bar Stopper
P138	38T Pulley
C01B-AL	Lower Deck B Alloy
C01B	Lower Deck B Carbon
C27	Top Deck
C26	Top Stiffener
C04AL	Alloy Suspension Arm
SWB10	Sway Bar 1.0mm
SWB11	Sway Bar 1.1mm
SWB12	Sway Bar 1.2mm
SWB13	Sway Bar 1.3mm
SPR01	Shock Spring
SPR02	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
SH4X6X0.1	4x6x0.1mm Shim
SH3X5X0.1	3x5x0.1mm 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
OR18	1x8mm O-ring
OR152	2x1,5mm O-Ring
B106RS	MR106RS Bearing
B84RS	MR84RS 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
SS3X4	M3x4 Set Screw
SS3X4-1	M3x4 DIN915 Screw
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
BEL189	Belt 189 mm
BEL513	Belt 513 mm
DG1	Damper Guage Set
INS-A800	A800 INSTRUCTION MANUAL
STS-A800	A800 Stickers Sheet

## Optional Parts

Parts#	Description
C04M	Carbon Suspension Arm
C07	Carbon bumper
C25	Steering Stiffener
ST17-1-S	Universal Ring Set
ST24L	4.8x10mm Ball Stud
ST130	30g Chassis Stiffener
AT13W	Wheel Hex Wide
AT21S	Pivot Ball Short
AT22	Rear Body Holder
AM12-1	Alloy Battery Holder
P15HLW	Hard Foam Bumper LW
P40F	Servo Arm (Futaba)
P40K	Servo Arm (KO)
P138LF	38T Pulley Low Friction
SPR01S	Shock Spring Soft
D2.1-S	Damper Set
FCB	Flexible Caster Block Set
BC1	Battery Clamp Set
UB1	Universals Bearings Set
AS-700L	Brushless Low-Profile Servo
AS-700L-GS	Gear Set for AS700L Servo
BEL189B	Belt 189 mm BANDO
BEL513B	Belt 513 mm BANDO



**AWESOMATIX INNOVATIONS LLP**  
**Email: [support@awesomatix.com](mailto:support@awesomatix.com)**