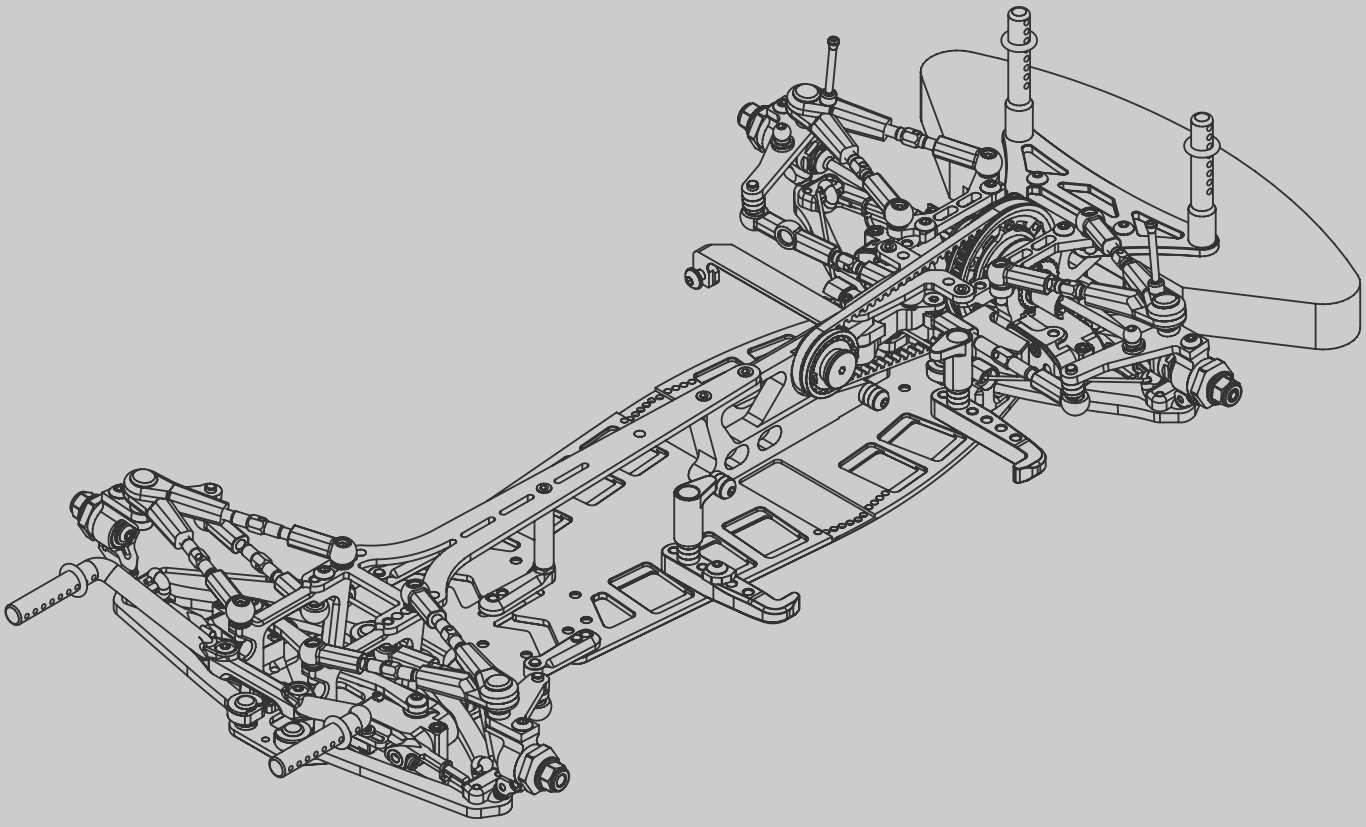
AWESOMATIX®

A800FXR

1/10-SCALE FRONT-WHEEL DRIVE TOURING CAR



INSTRUCTION MANUAL

INTRODUCTION

Congratulations on purchasing your Awesomatix car!
The A800FXR car was produced by UAB “Awesomatix” company.
The A800FXR car utilises many unique features, including some patented innovations.

BEFORE YOU START

The A800FXR car is the high-quality, innovative 1/10-scale front-wheel drive 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 A800FXR car you must not begin assembly.
Your A800FXR car cannot be returned to UAB Awesomatix 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 A800FXR 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.
Awesomatix Innovations 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 A800FXR 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 are they correct size/length. You can find the useful tips and pictures of A800FXR assembling on the internet site: **http://site.petitrc.com/reglages/awesomatix/SetupSheetsAwesomatixA800FXR.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. UAB “Awesomatix” accepts 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.

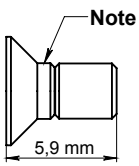
EQUIPMENT RECOMMENDED (NOT INCLUDED)

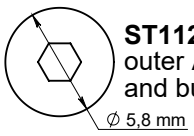
- Radio Transmitter
- Radio Receiver
- Electronic Speed Control
- Steering Servo
- Servo Horn
- Electric Motor
- Pinion Gear (64 or 48 Pitch)
- Spur Gear (64 or 48 Pitch)
- 7.4 V Li-Po Battery
- 190mm Body Shell
- Touring Car Wheels, Tires, Inserts

TOOLS RECOMMENDED (NOT INCLUDED)

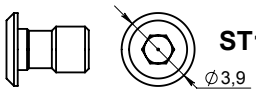
- 1.5mm, 2.0mm Hex Driver
- 5.5mm, 3/8, 10mm Wrenches
- Callipers
- Hobby Knife
- Camber Gauge
- Ride Height Gauge
- Thread Lock
- 100’000 cst Diff Silicone Oil
- 275 cst Silicone Shock Oil
- Joint Grease
- O-Ring Grease

Note these items at assembling of the car.

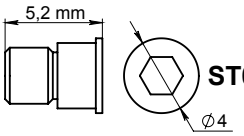




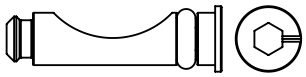
ST112 screws - used for fastening only outer **AM286**s **(STEP 2)** dampers **(STEP 4)** and bulkheads **(STEP 12)** to the lower deck!



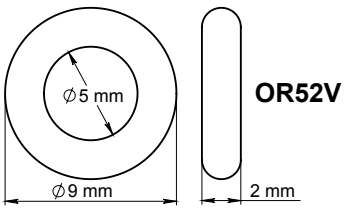
ST122-1



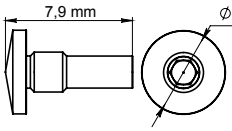
ST019



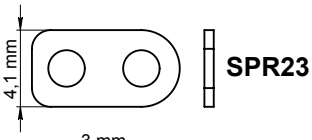
ST143 with **OR1010V** o-ring



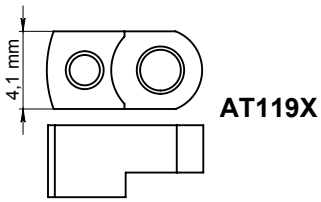
OR52V



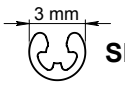
ST69X-00



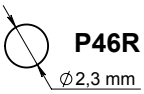
SPR23



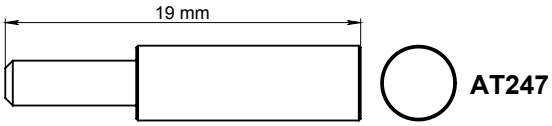
AT119X



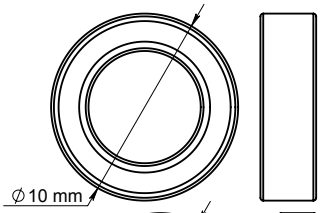
SPR07



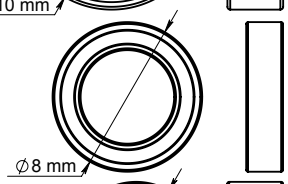
P46R ball



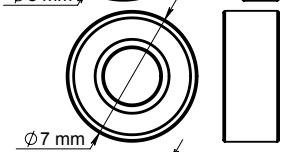
AT247



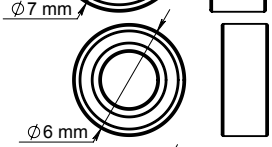
B106RS ball bearing



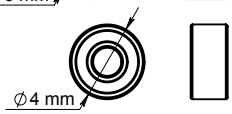
B85 ball bearing



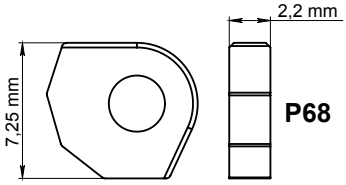
B73SS ball bearing



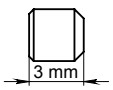
B63SS ball bearing



B415 ball bearing



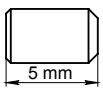
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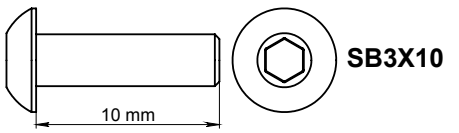
SS3X3



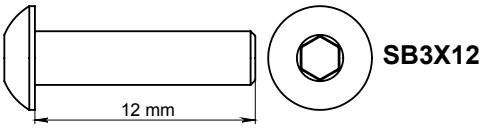
SS3X4



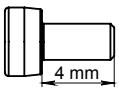
SS3X5



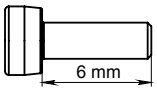
SB3X10



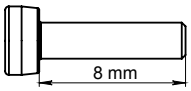
SB3X12



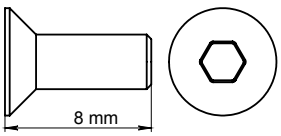
SC2X4



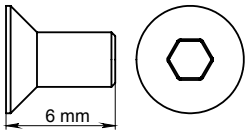
SC2X6



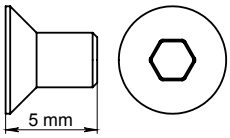
SC2X8



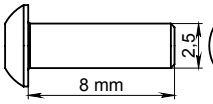
SF3X8



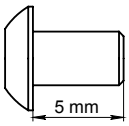
SF3X6



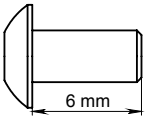
SF3X5



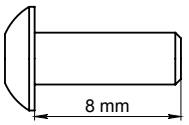
SB25X8



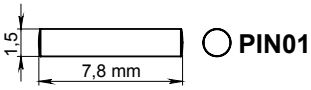
SB3X5



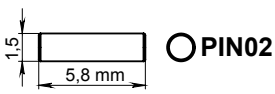
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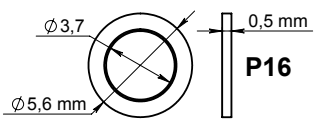
SB3X8



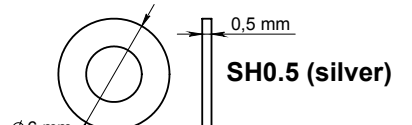
PIN01



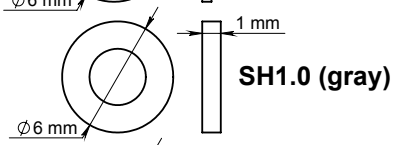
PIN02



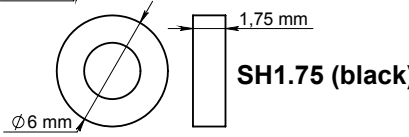
P16



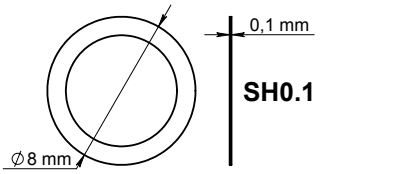
SH0.5 (silver)



SH1.0 (gray)



SH1.75 (black)



SH0.1

OR2010V

OR06

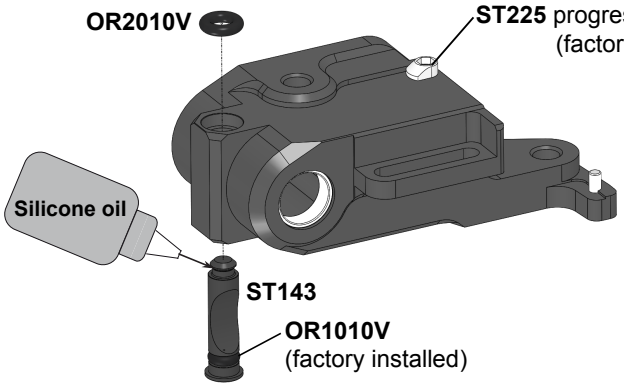
OR05V

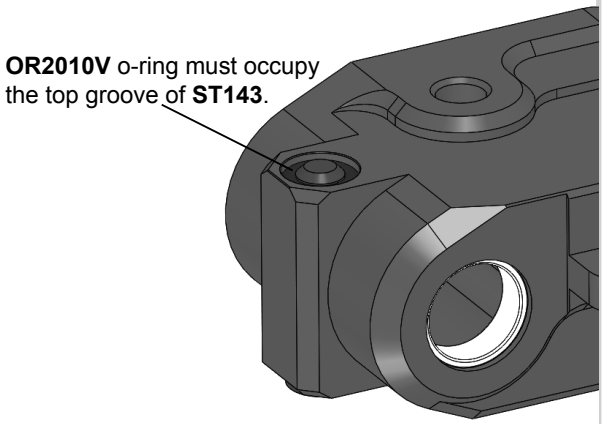
STEP 1 - Assembling of the D4 Dampers

Click or Scan for video

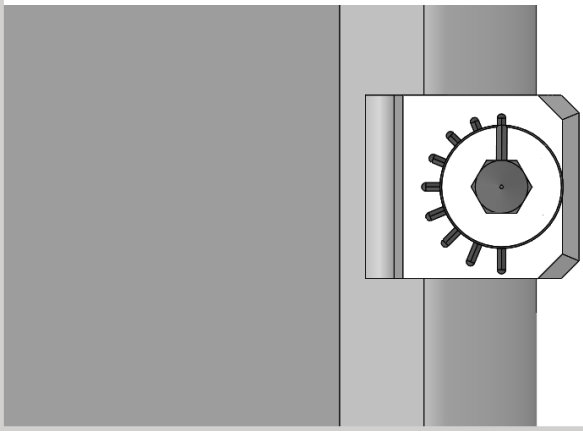
D4 dampers feature external switching between linear, progressive and semi-progressive damping modes without the need for disassembly. See page 26 for setup technique.

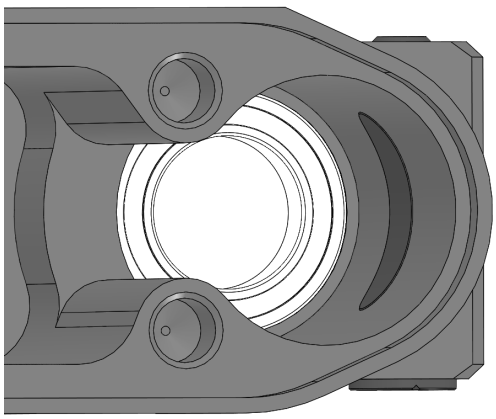
#1 Insert **OR2010V** o-ring into the upper cavity of **AM242R/L-D4** case. Lubricate **ST143** with small amount of silicon oil. Note that one **OR1010V** o-ring is already factory installed on each **ST143**. Hold **OR2010V** o-ring with the tip of your finger and insert the lubricated **ST143** into **AM242R/L-D4** hole. Rotate and press on **ST143** simultaneously with 1,5mm hex screwdriver so that the pointed tip of **ST143** should pass through **OR2010V** o-ring.



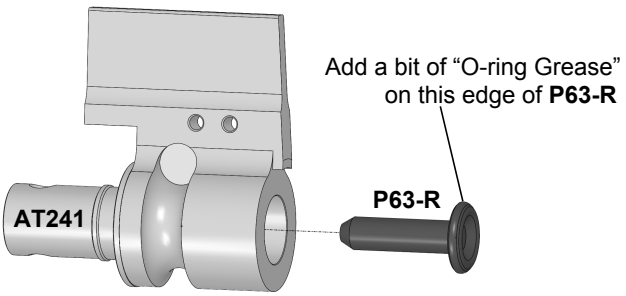


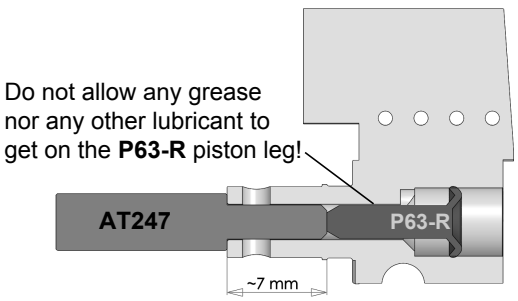
#2 Turn **ST143** valve into the shown position for further installation of the **AT241** rotor.



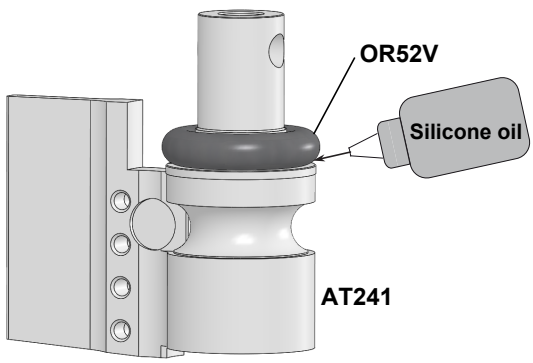


#3 Lubricate the outer edge of the P63-R piston with small amount of “O-ring Grease”. MXLR brand o-ring grease is recommended. Do not allow any grease nor any other lubricant to get onto the **P63-R** piston leg! Insert **P63-R** piston into **AT241** on full depth. Insert **AT247** probe into the output hole of **AT241** rotor and shift **P63-R** piston to the recommended ~7mm position.

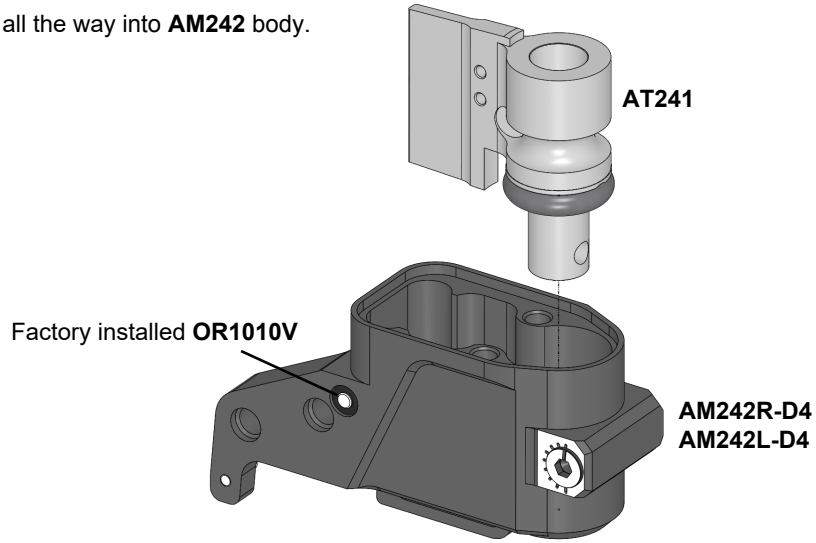




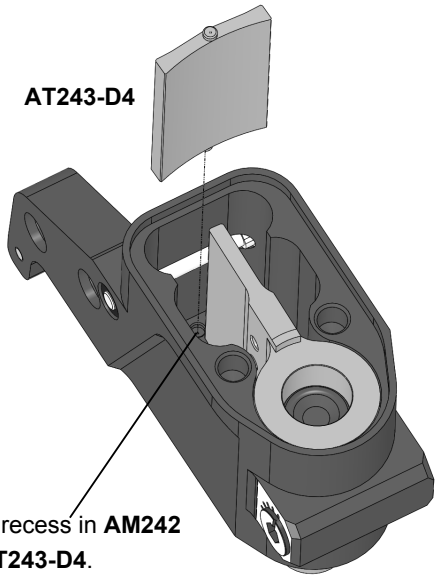
#4 Slide **OR52V** o-ring onto **AT241** rotor’s shaft and add a drop of silicone to fill the gap under the o-ring.



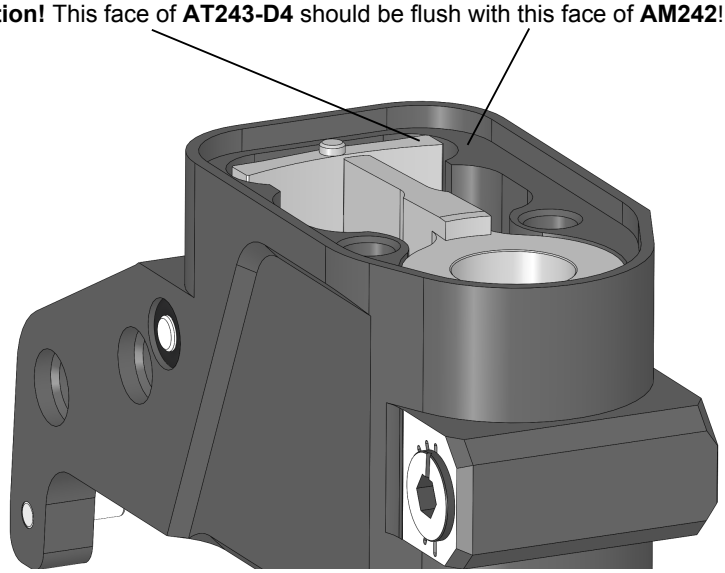
#5 Insert **AT241** rotor all the way into **AM242** body.



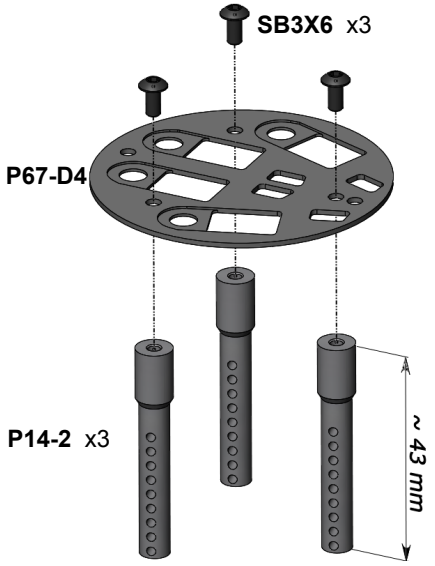
#6 Insert **AT243-D4** progression damper plate all the way into **AM242**.



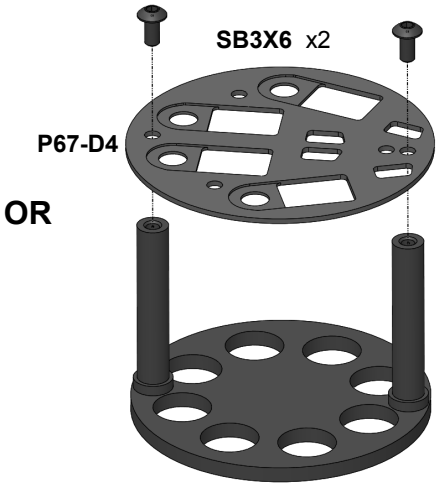
Attention! This face of **AT243-D4** should be flush with this face of **AM242**!



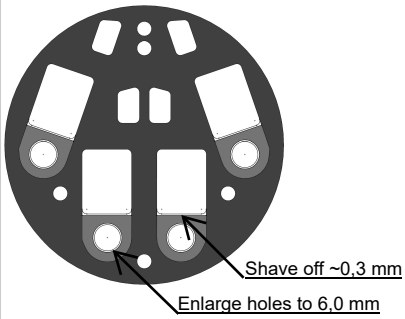
#7 Prepare the damper stand enabling the use of your typical Tamiya style RC Damper Oil Air Remover tool.
Either attach **P67-D4** stand to three **P14-2** posts (cut to ~43mm length) or directly replace one of the original plate by **P67-D4**.



OR



P67 - older version of Damper stand may need a bit of trimming to perfectly accommodate D4 dampers. Shave off some material as shown if necessary:

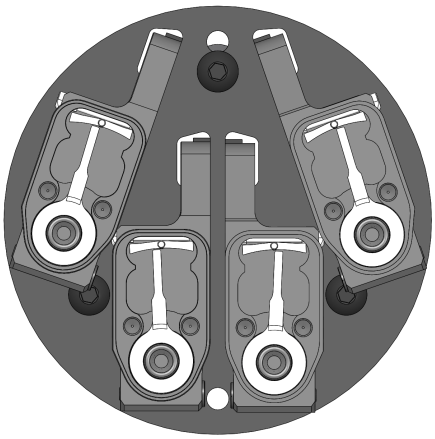


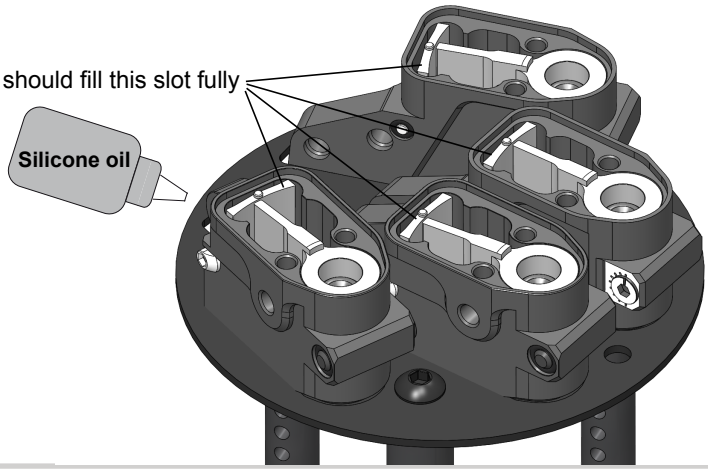
TIP / Recommended items:

MAX-02-003 - MXLR Awesomatix A800R ShockVac

MAX-01-003 - MXLR O-Ring grease (for P63 & OR52V)

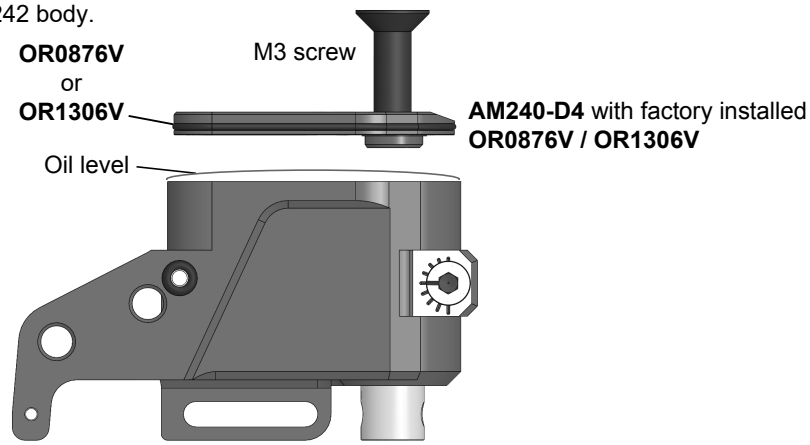
#8 Install the dampers on the air remover stand and keep them vertically. We recommend 275 cst silicone oil as a base. Fill up the dampers with the desired silicone oil. The oil level should reach the top face of AT243-D4 and AT241 at this stage. Make sure to also fill up the cavity over P63-R piston. Pay special attention to the narrow slot behind AT243-D4. A lack of oil here is hard to detect, add oil if necessary!

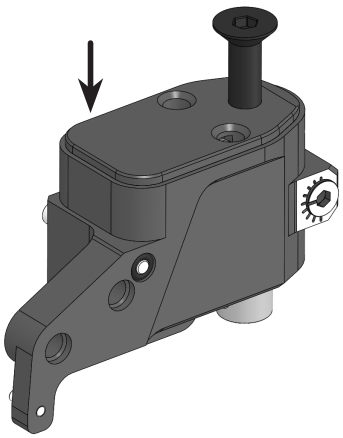




#9 Vacuum should be applied at least 10 times x 2 minutes. Try to reach the maximum possible level of vacuum on each cycle. There are many small cavities inside the damper bodies where air might get trapped for a long time. Repeat as many vacuum cycles as necessary for as long as air bubbles keep appearing. This step is crucial to obtain perfectly operating dampers!

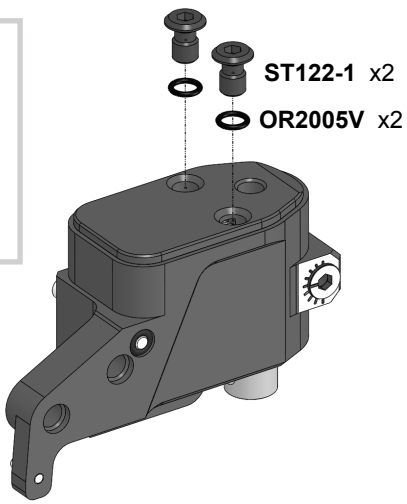
#10 Add more oil into the damper. The oil level should be a little over the upper edge of **AM242**. Insert a long M3 screw into the special hole of **AM240-D4** to grab **AM240-D4** cover. **AM240-D4** should be inserted 100% horizontally and slowly to allow the oil to fill the cavity of **AM240-D4** and to push trapped air through the two mounting screw holes. **AM240-D4** should dive into the oil under its own weight at this stage. Next carefully press onto **AM240-D4** with your fingertip to slowly submerge **AM240-D4** all the way into its pocket on top of AM242 body.

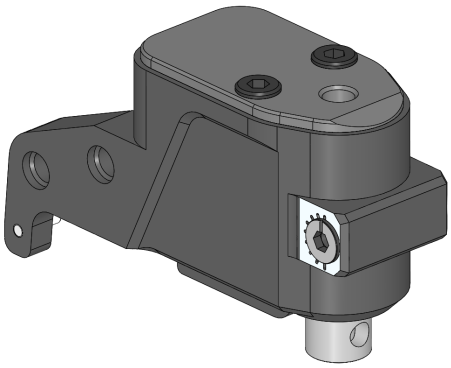




#11 Carefully thread **OR2005V** o-rings onto **ST122-1** screws first. Keep the damper vertical while screwing on the two **ST122-1** screws with **OR2005V** o-rings. Make sure not to overtighten these screws to avoid stripping the threads!

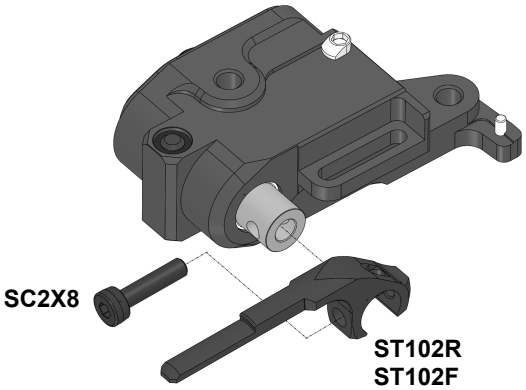


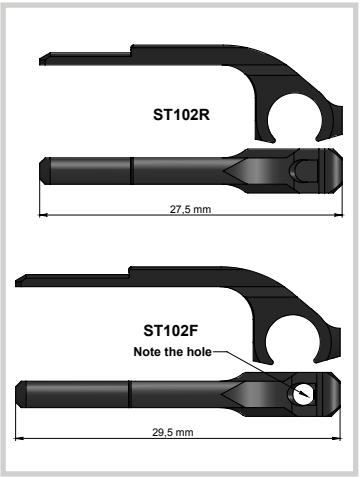


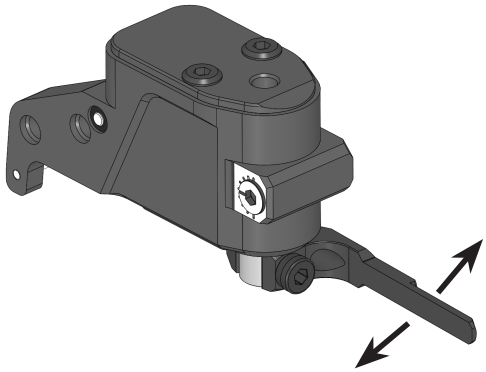


Wipe off the oil excess from the damper body with paper towels and remove M3 screw.

#12 nstall **ST102F** (longer part) onto the front dampers and **ST102R** (shorter part) onto the rear dampers. Tighten **SC2X8** screw until contact, then add ¼ of a turn (ensuring coupling between **ST102** and **AT241** is done by friction, and not by the screw acting as a pin). Keep the damper vertically and swing **AT241** rotor a few times in both directions. In case you feel air bubbles inside the damper remove **AM240-D4** cover, add some oil into the damper and repeat the **AM240-D4** installation process.

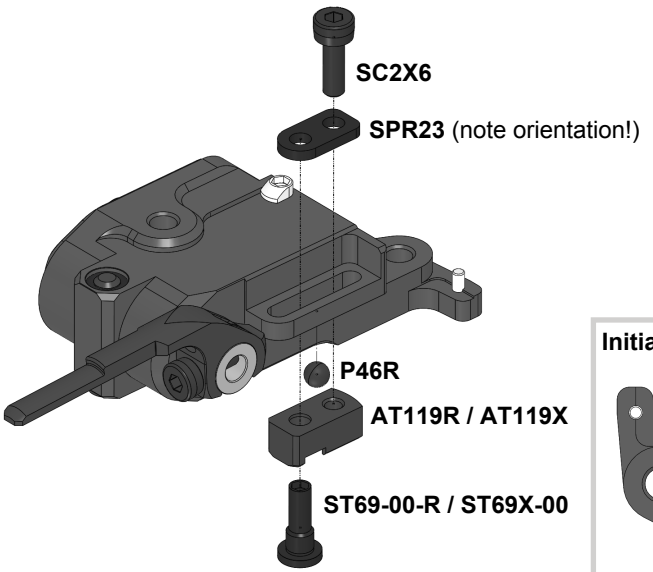




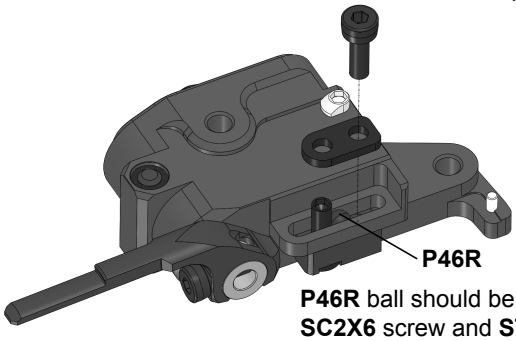


Comment: Note that dampers sit in the horizontal position in the car. Therefore, any trapped air is necessarily located near the top wall of the damper and does not affect the rotor action. These dampers are equally effective on track even with a bit of air trapped inside. These bubbles can only be felt when they can go through the rotor blade when the dampers are operated vertically.

#13 Install **AT119**, **SPR23**, **P46R**, **ST69** and note the orientation of **SPR23**: the rounded end directed toward the damper shaft.

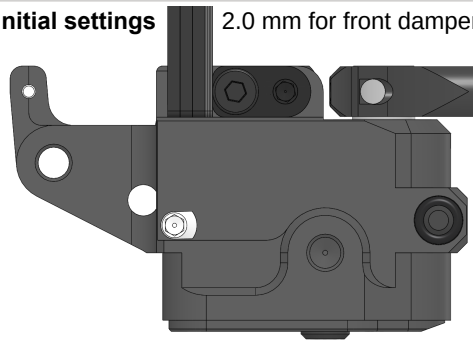


Optional **ST69-25-R** screws for 25% spring's action progression are available (not included).
Optional **PSSX** set for 30% spring's action progression is available (not included).



P46R ball should be placed between **SC2X6** screw and **ST69-00-R** screw.

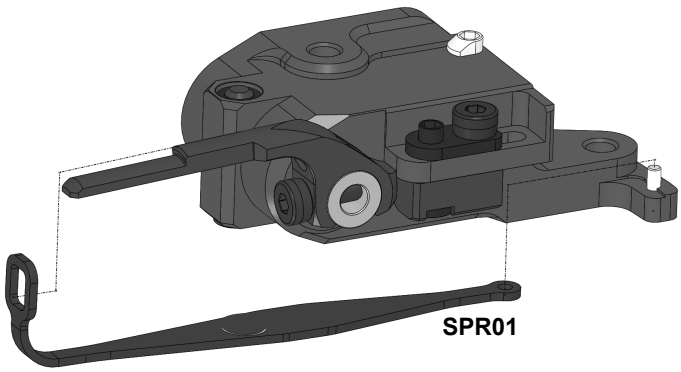
Initial settings 2.0 mm for front dampers, 3.6 mm for rear dampers

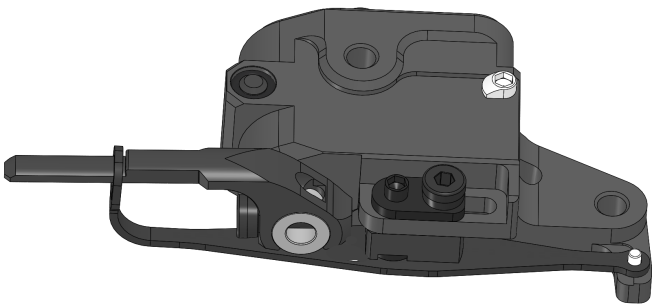


Use **DG1X** gauge



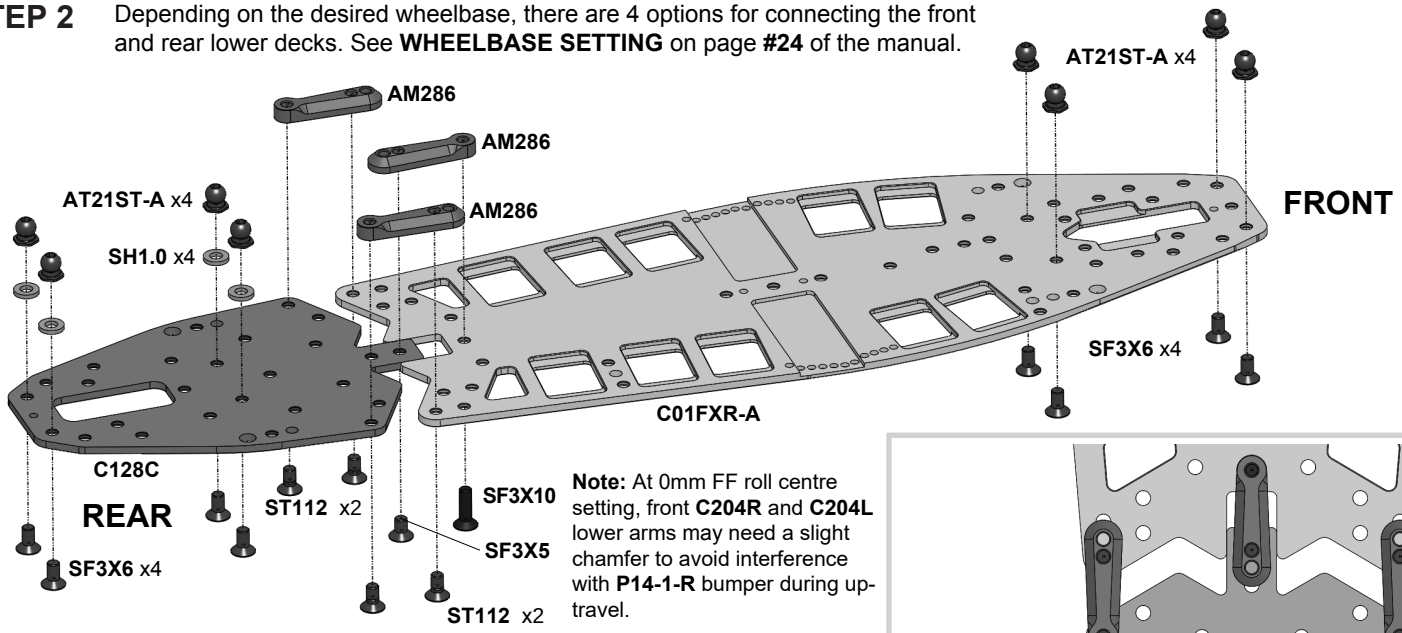
#14 Install **SPR01** springs.





STEP 2

Depending on the desired wheelbase, there are 4 options for connecting the front and rear lower decks. See **WHEELBASE SETTING** on page **#24** of the manual.

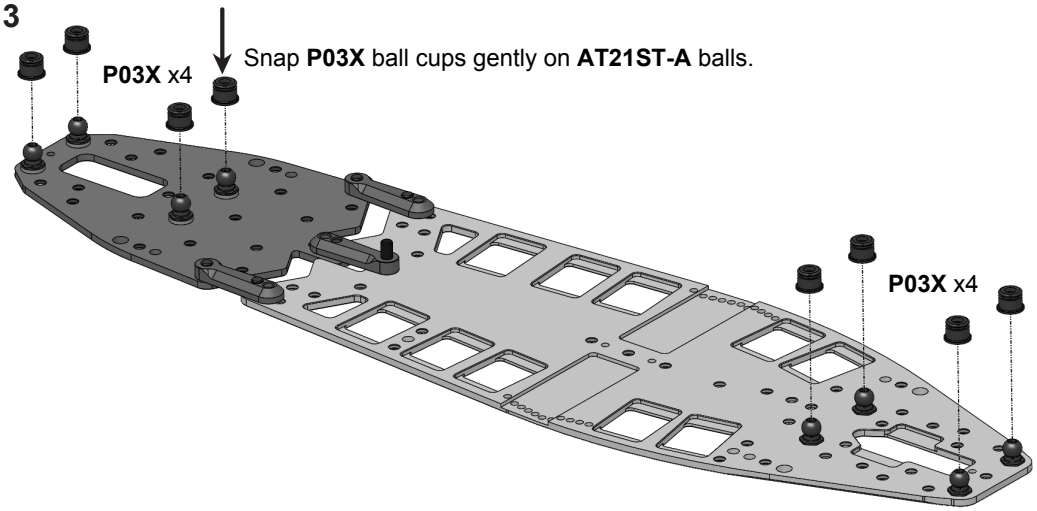


Note: At 0mm FF roll centre setting, front **C204R** and **C204L** lower arms may need a slight chamfer to avoid interference with **P14-1-R** bumper during up-travel.

Combinations of **SH0.5**, **SH1.0** and **SH1.75** spacers under **AT21ST-A** balls are used to adjust the car's roll center.
Use **SF3X8** screws when using more than 1,5mm of spacers under **AT21ST-A** balls.

Note orientation of **AM286** links and choice of holes for installation.

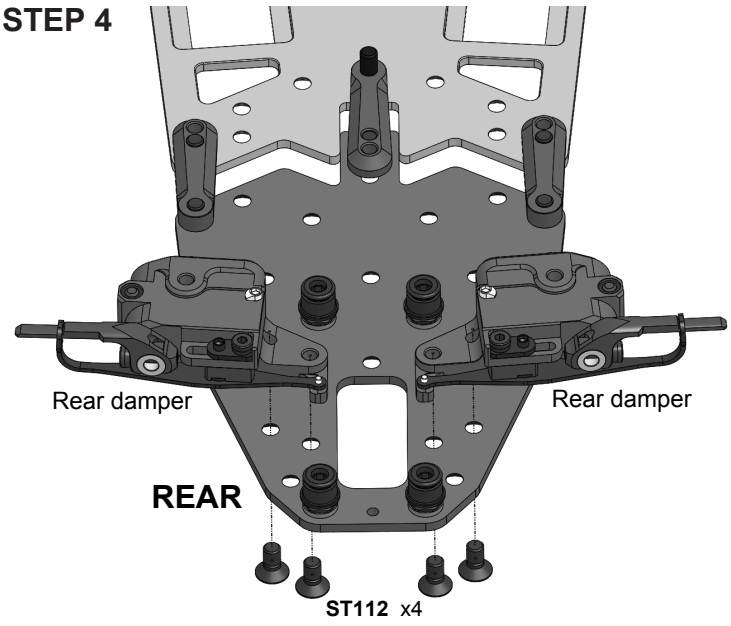
STEP 3

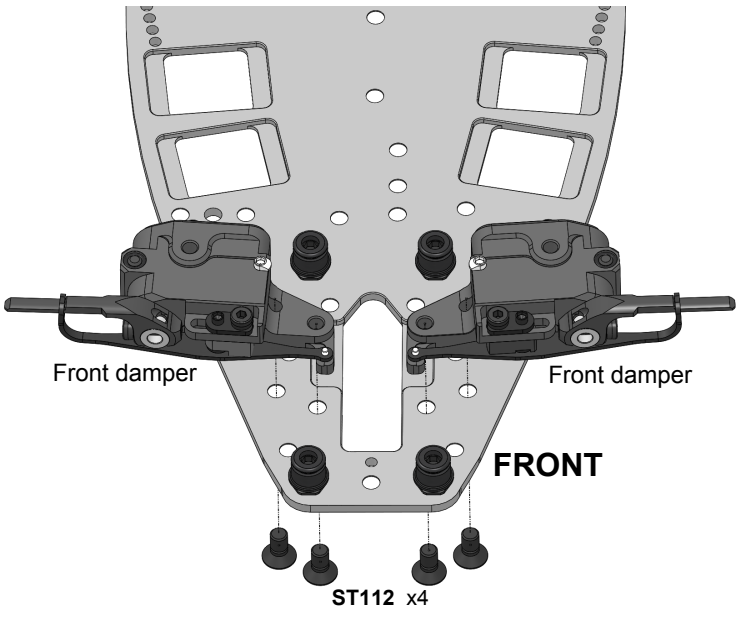




P03X

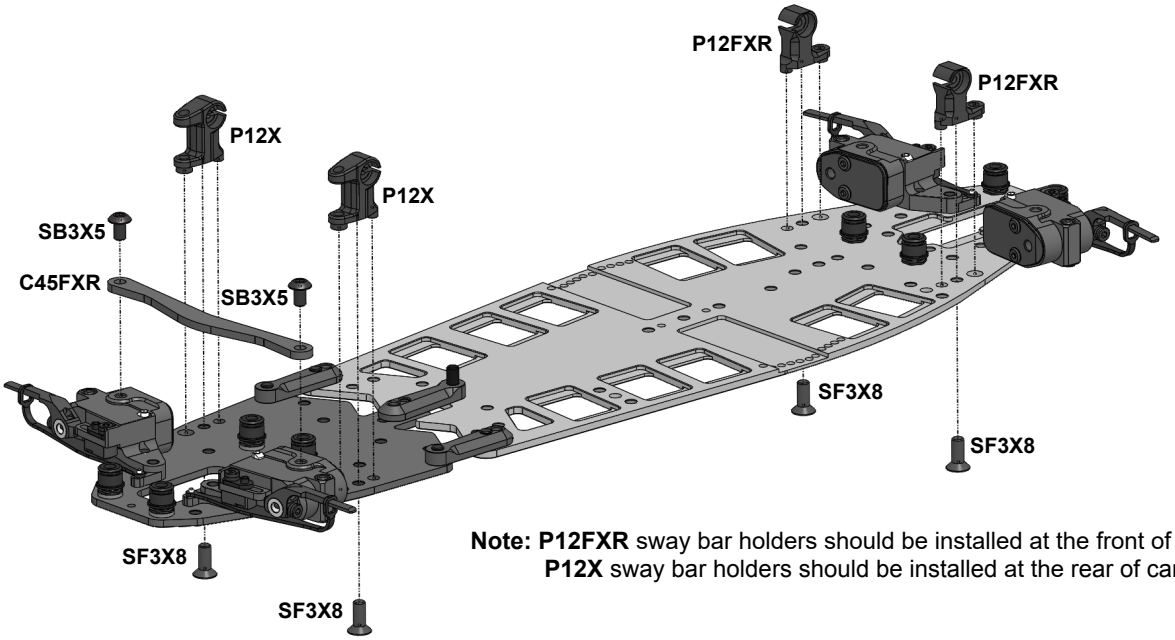
STEP 4





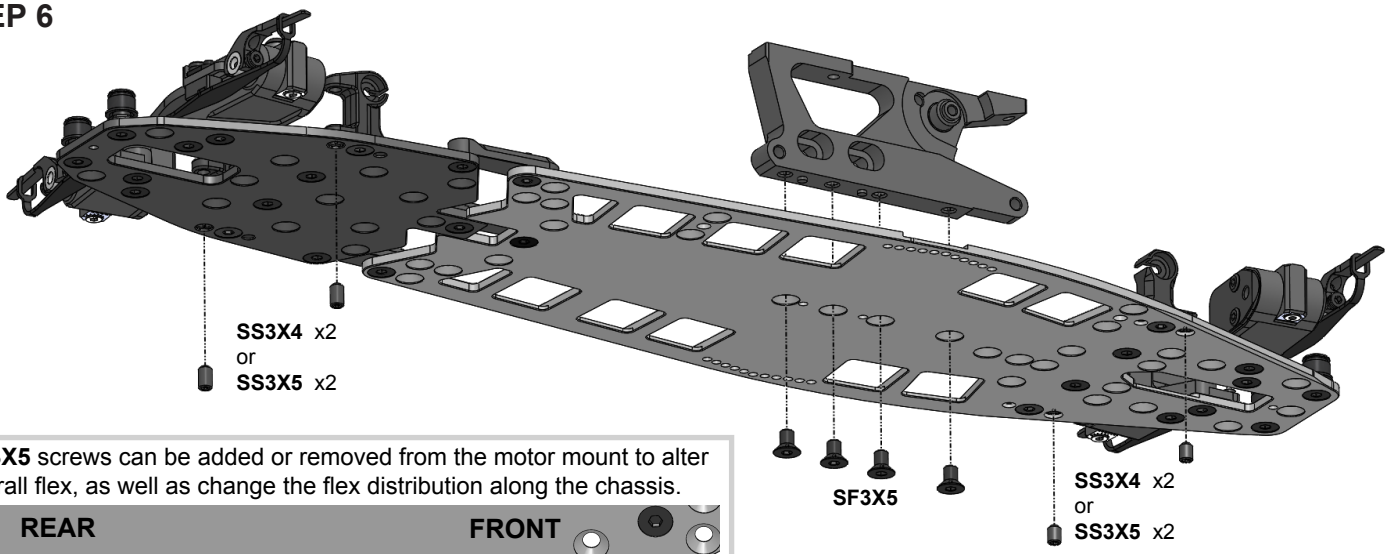
Note: Use **ST112** centering screws to bolt on the dampers!

STEP 5



Note: P12FXR sway bar holders should be installed at the front of the car.
P12X sway bar holders should be installed at the rear of car.

STEP 6



SF3X5 screws can be added or removed from the motor mount to alter overall flex, as well as change the flex distribution along the chassis.

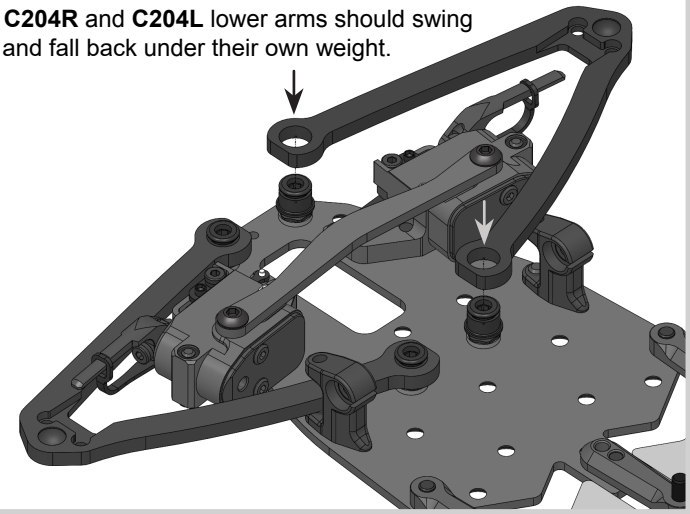


Motor mount screws designation for setup sheet.

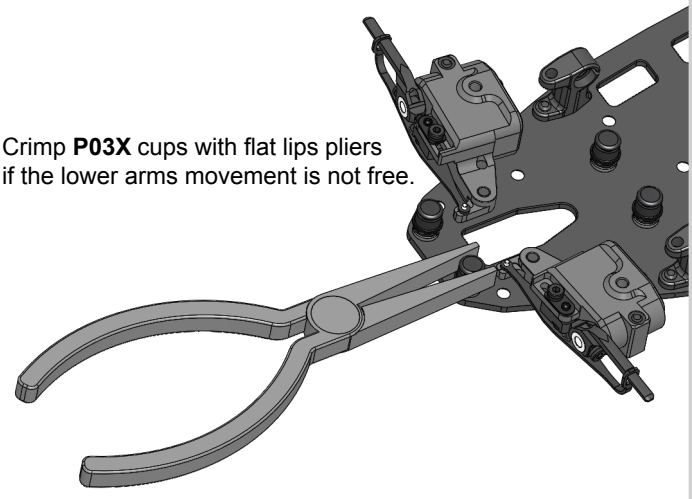
Note: SS3X5 set screws should be used if more than 2 mm spacers are used under **AT21ST-A** balls.

STEP 7

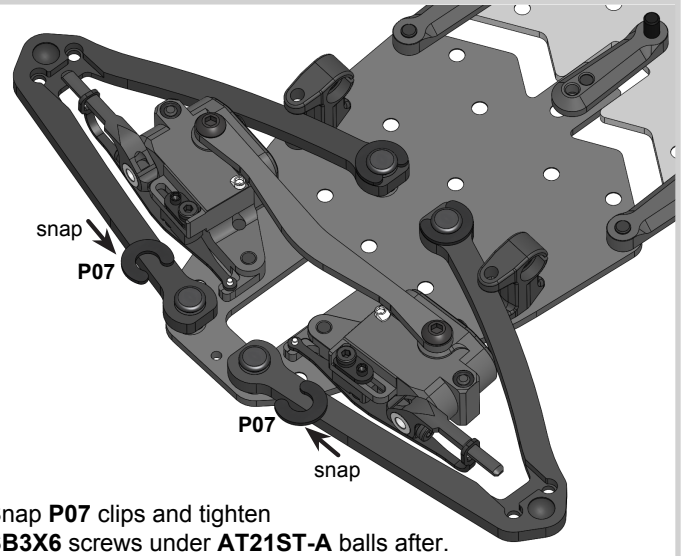
Snap **C204R** and **C204L** lower arms on **P03X** cups.
Note orientation of recesses on the arms!
Note: **C204R** and **C204L** lower arms should swing freely and fall back under their own weight.



Crimp **P03X** cups with flat lips pliers if the lower arms movement is not free.

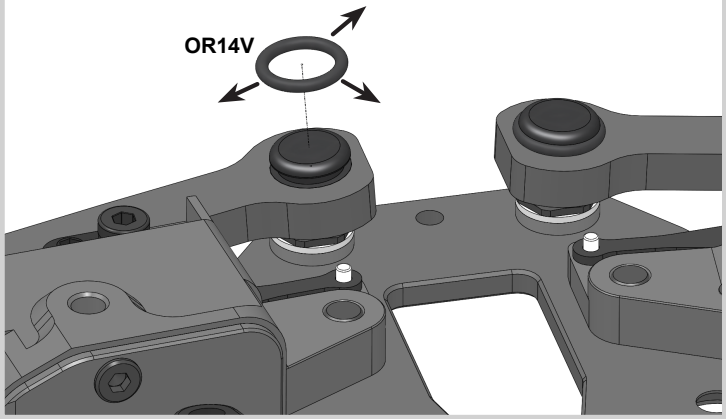


STEP 8



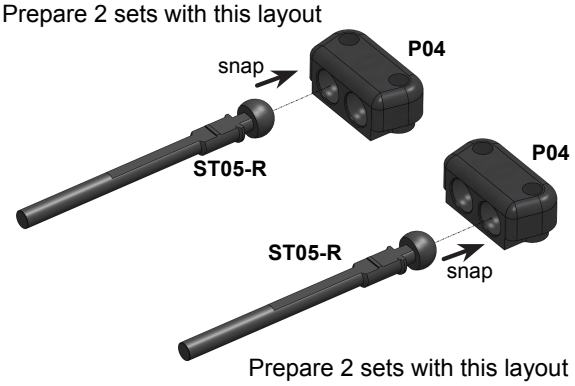
Snap **P07** clips and tighten **SB3X6** screws under **AT21ST-A** balls after.

Optional **OR14V** rubber o-rings can be used instead of **P07** clips.

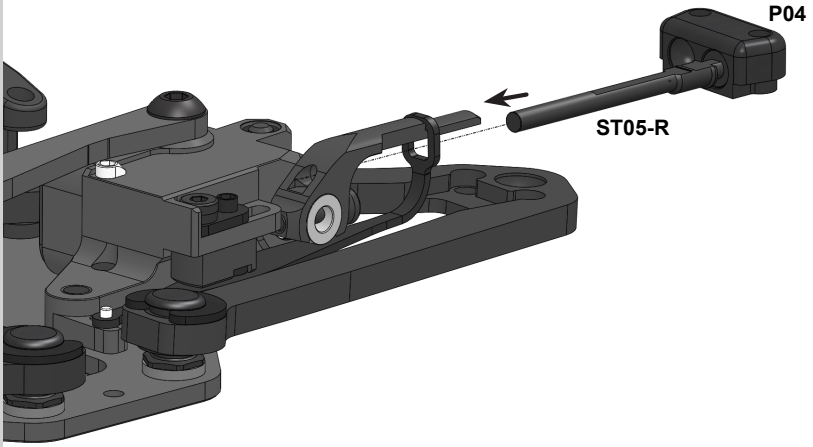


STEP 9

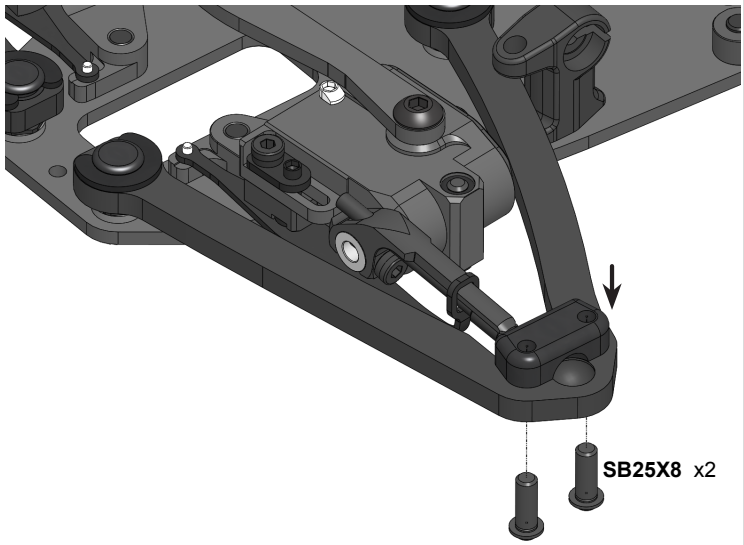
Prepare 2 sets with this layout

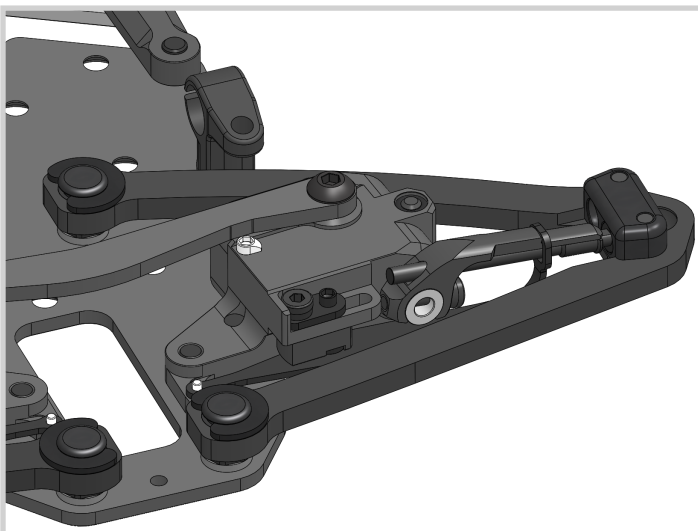


Prepare 2 sets with this layout



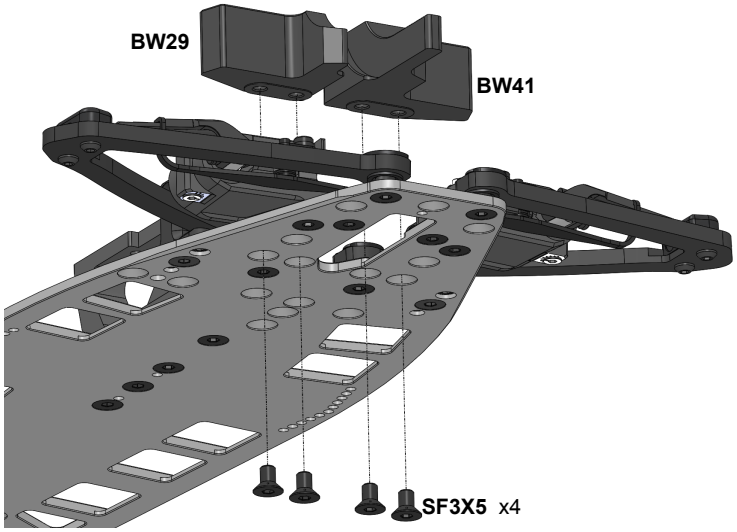
STEP 10

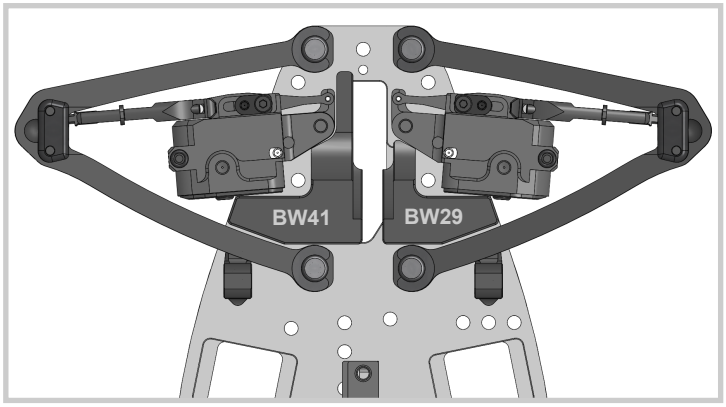




Install **ST05-R** with **P04** on all four suspension arms.

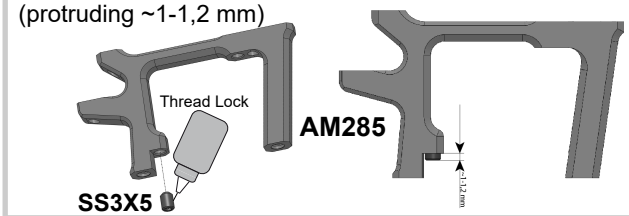
STEP 11



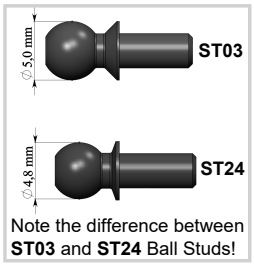


STEP 12

Insert **SS3X4** set screw into **AM285** bulkhead as shown (protruding ~1-1,2 mm)



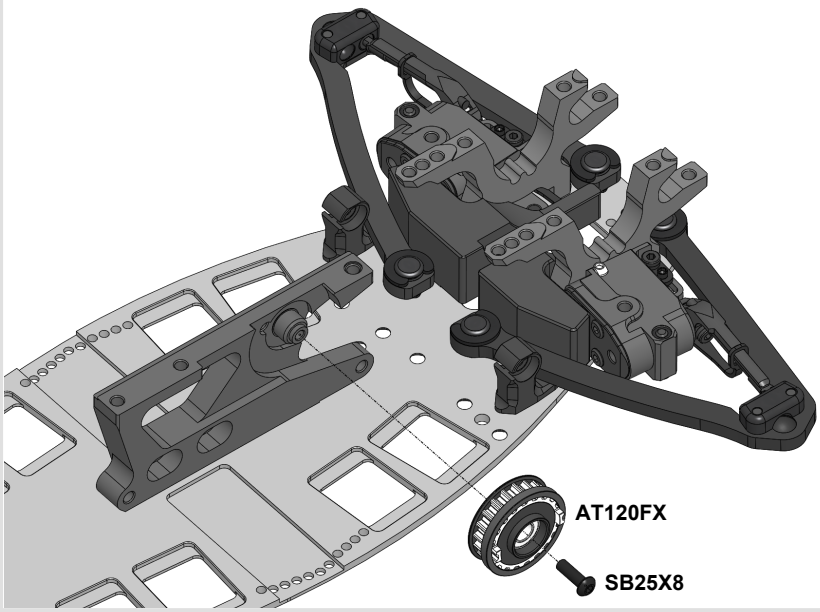
Install two **ST24** ball studs into the rear **AM285** bulkheads before bolting them onto the chassis.

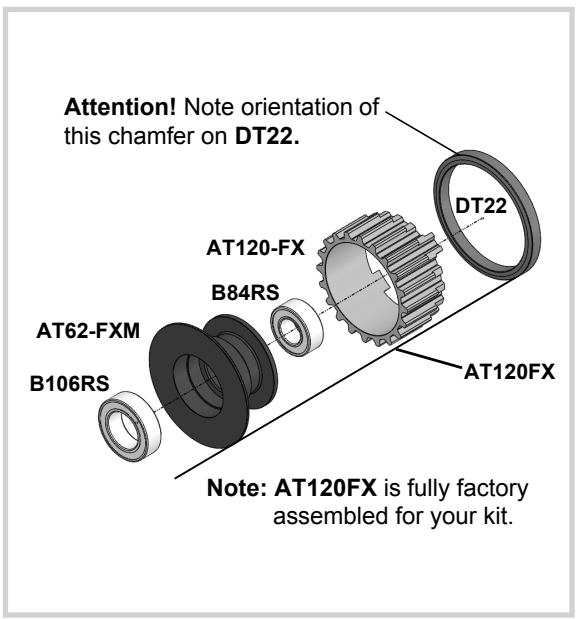


Note the difference between **ST03** and **ST24** Ball Studs!

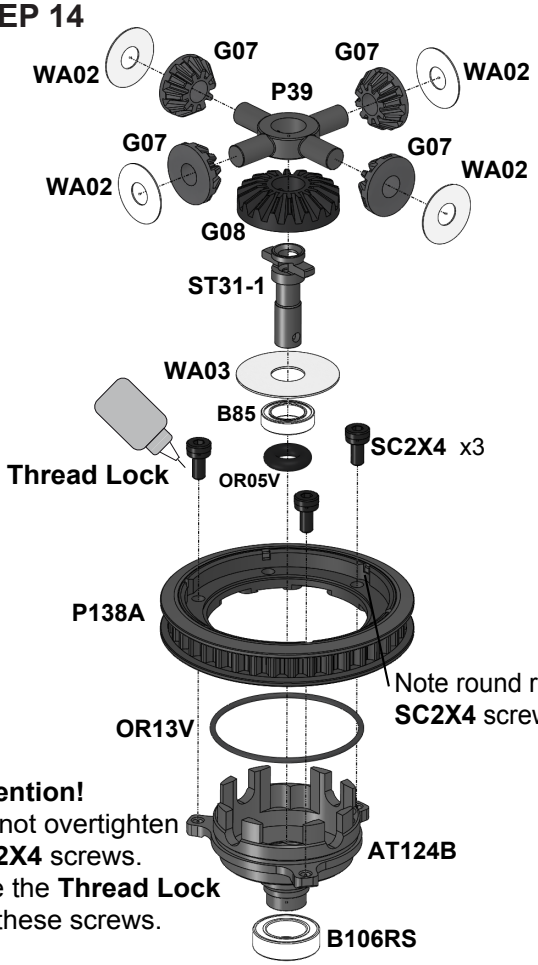
⚠**Note**: Use **ST112** centering screws for **AM278** and **AM285** bulkheads mounting.

STEP 13

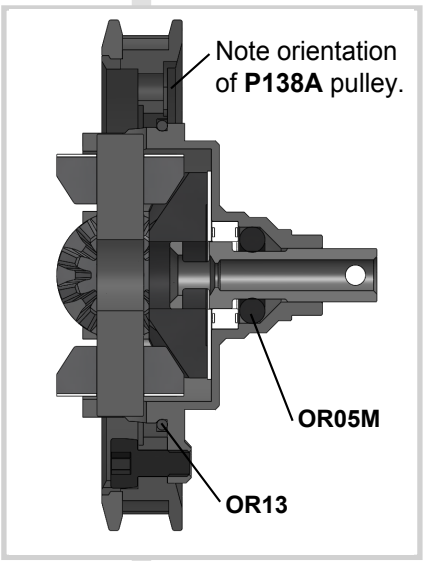




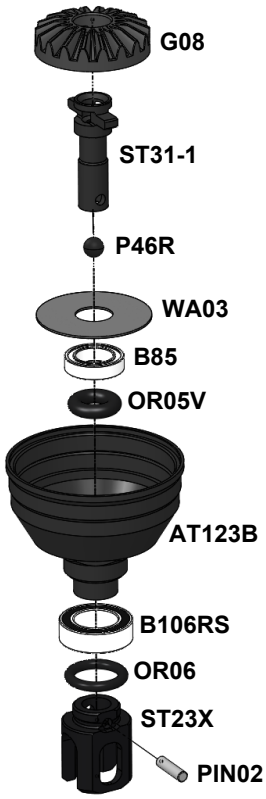
STEP 14



Attention!
Do not overtighten **SC2X4** screws.
Use the **Thread Lock** for these screws.



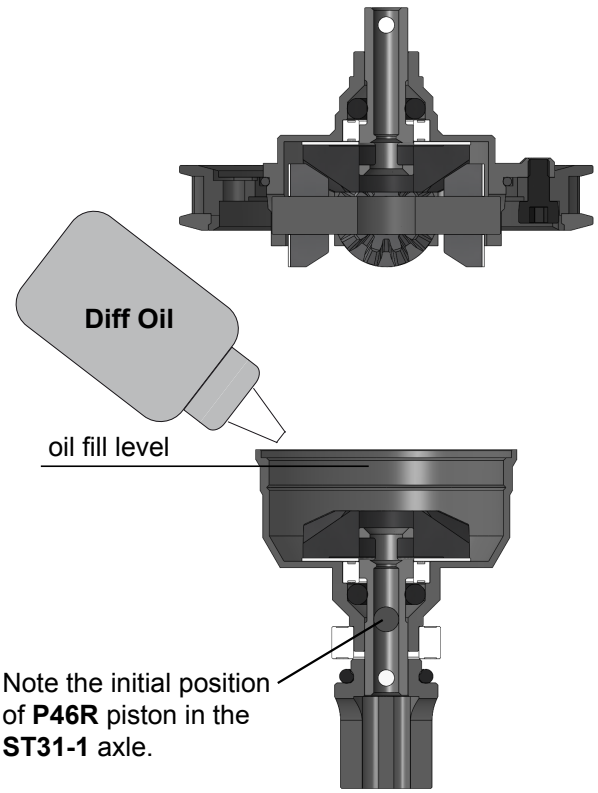
STEP 15



TIP / Recommended items:
MAX-01-003 - MXLR O-Ring grease (for OR05V)
MAX-02-002 - MXLR Awesomatix TC Multi Tool

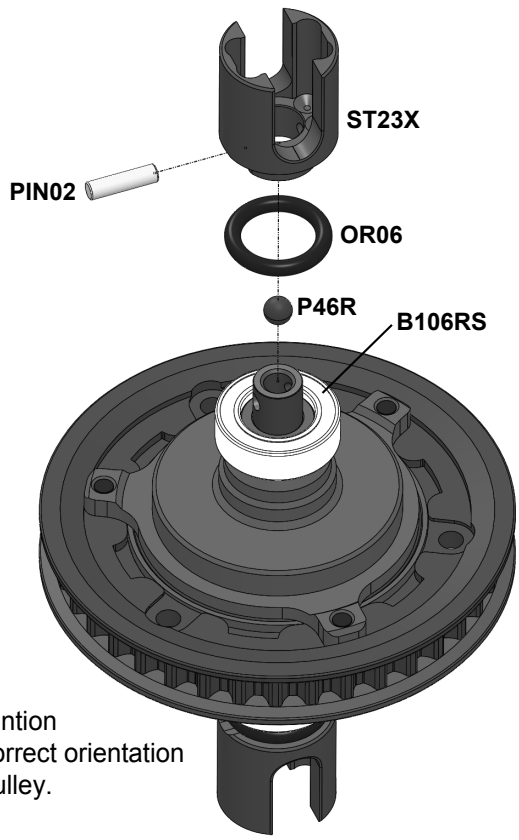
STEP 16

Fill up with the desired silicone oil (not included).
Screw **AT123B** case with 10mm wrench slowly.
The oil excess will go out through the **ST31-1** axial hole.

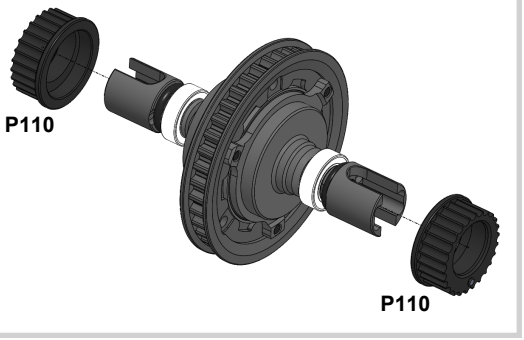


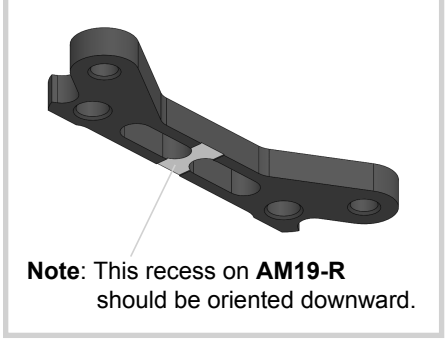
STEP 17

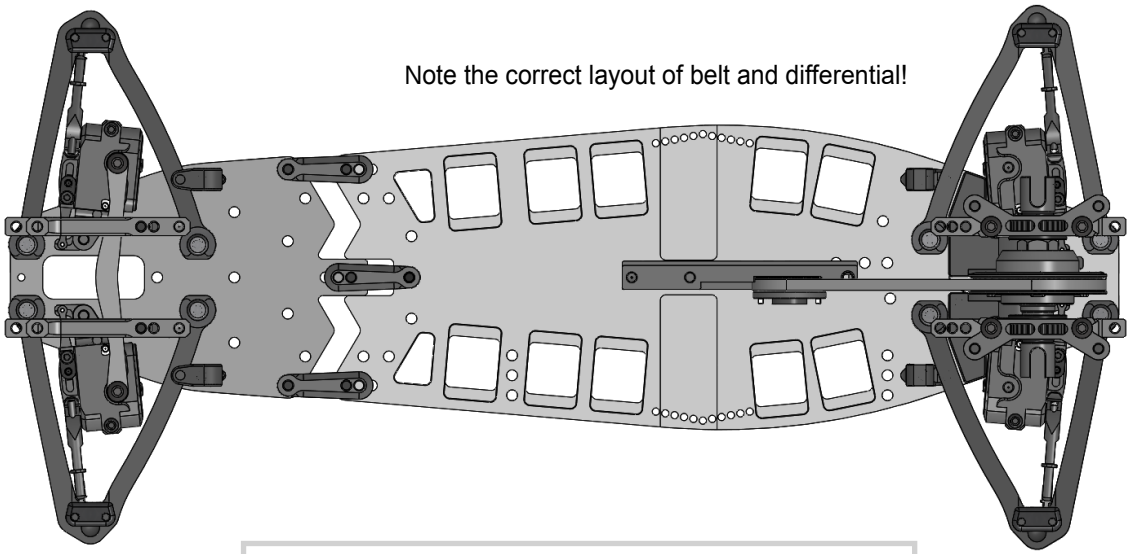
TIP / Recommended items:
MAX-01-001 - MXLR Ball Bearing oil



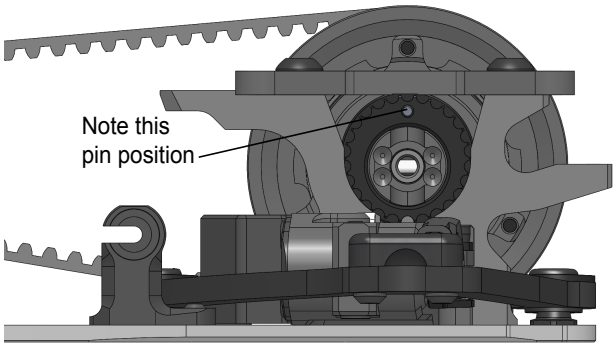
STEP 18





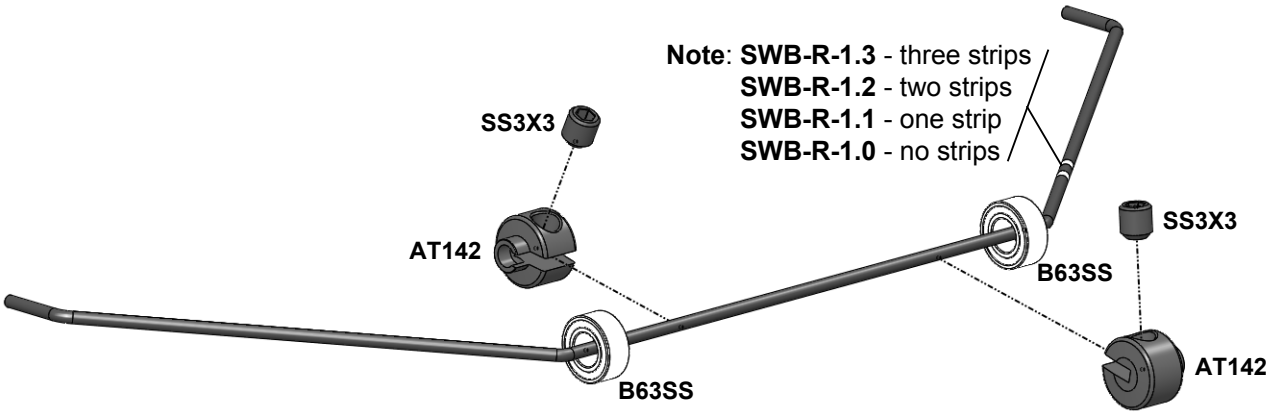


Initial position of front **P110**



STEP 19

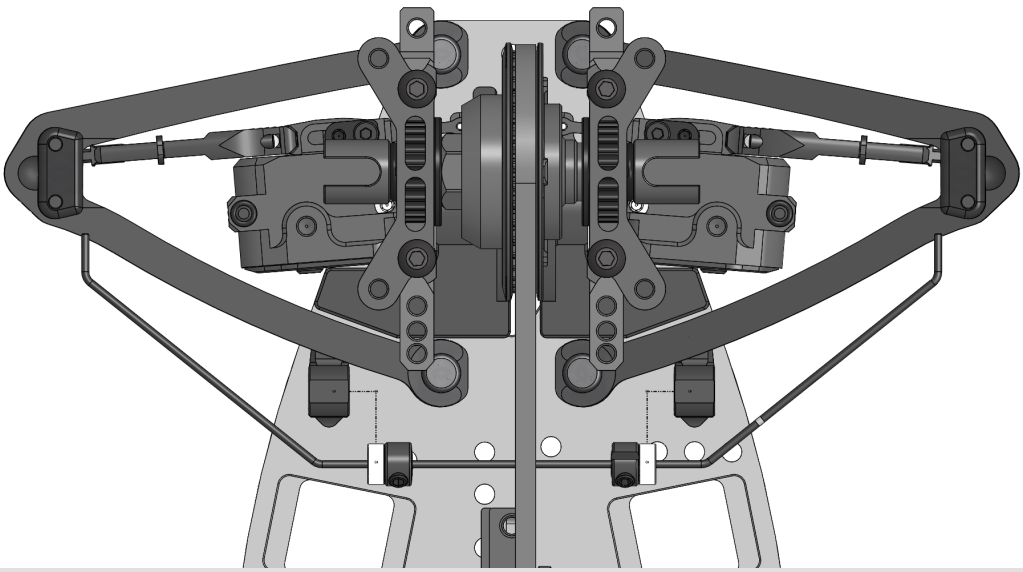
Note: Do not tighten **SS3X3** set screws at this stage.



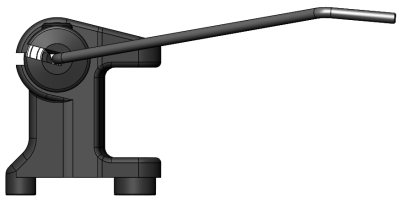
STEP 20

Install the rear sway bar into **P12X** and the front sway bar into **P12FXR**.

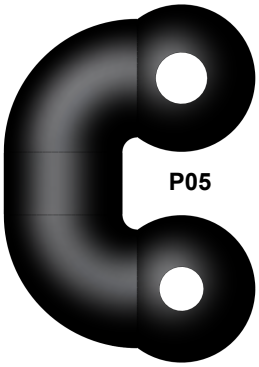
Adjust **AT142** stoppers to achieve centered sway bar position and then tighten **SS3X3** set screws.



Attention!
The deflected tips of sway bar should be directed downwards.

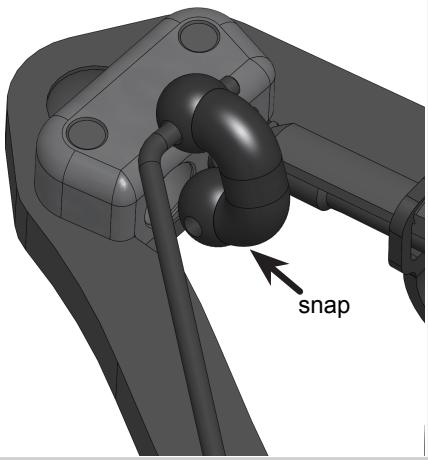


STEP 21

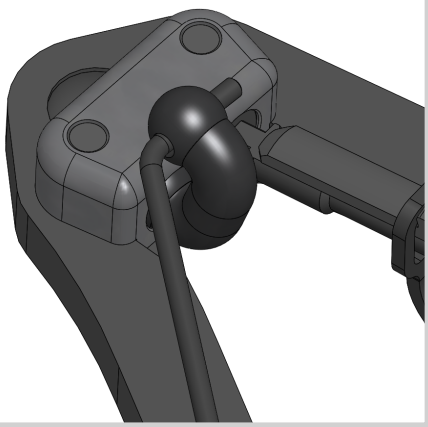


Use bigger hole for **SWB-R-1.2** and **SWB-R-1.3** sway bars.

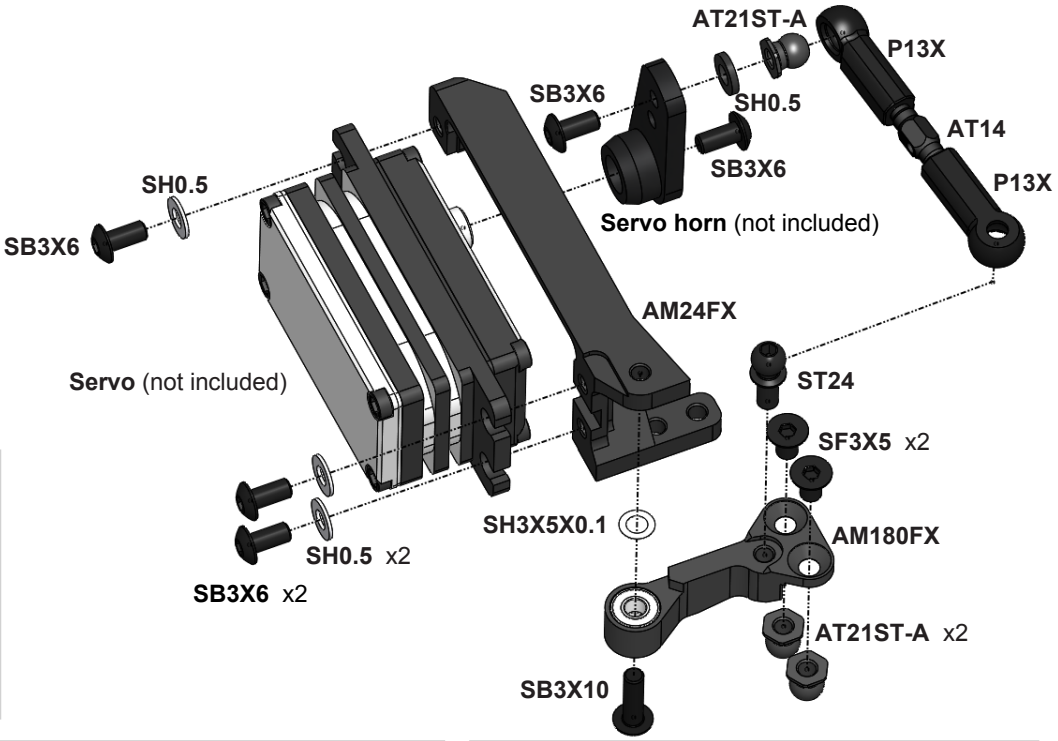
Use smaller hole for **SWB-R-1.0** and **SWB-R-1.1** sway bars.

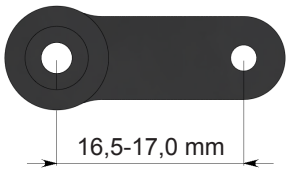


Snap **P05**'s on all four suspension arms.



STEP22

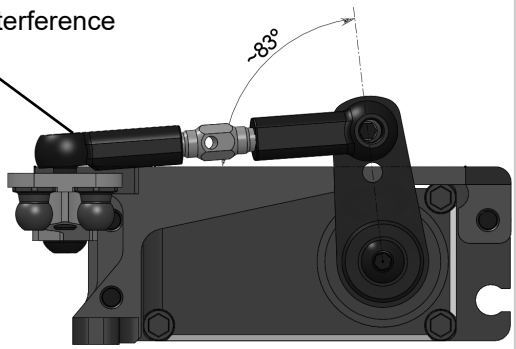




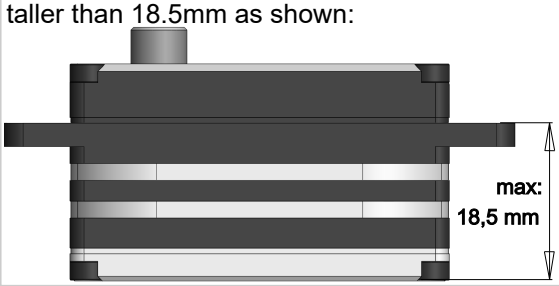
Recommended Servo horn length: 16,5-17,0 mm.

Shave off the top of **P13X** ballcup to prevent interference with the top deck.

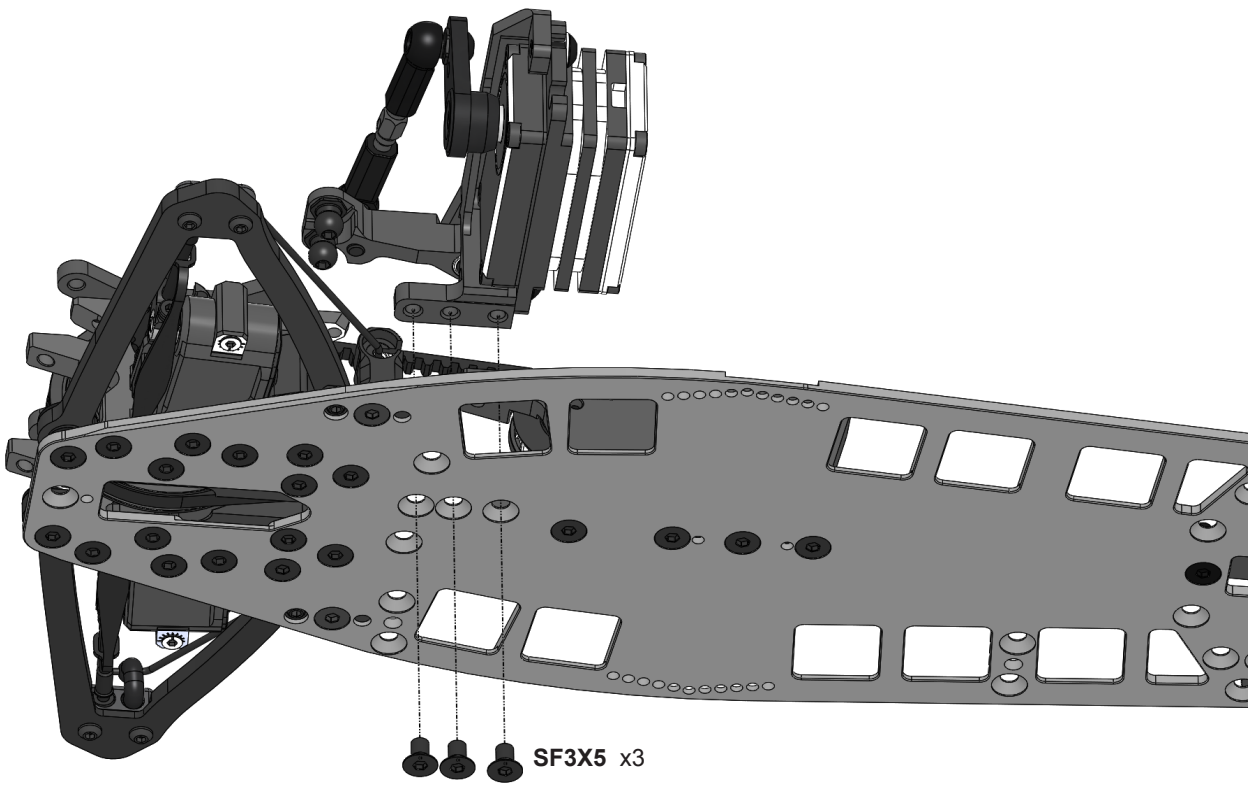
Adjust the length of the servo link to achieve a ~83 deg angle of servo horn at neutral position of **AM180FX** bellcrank



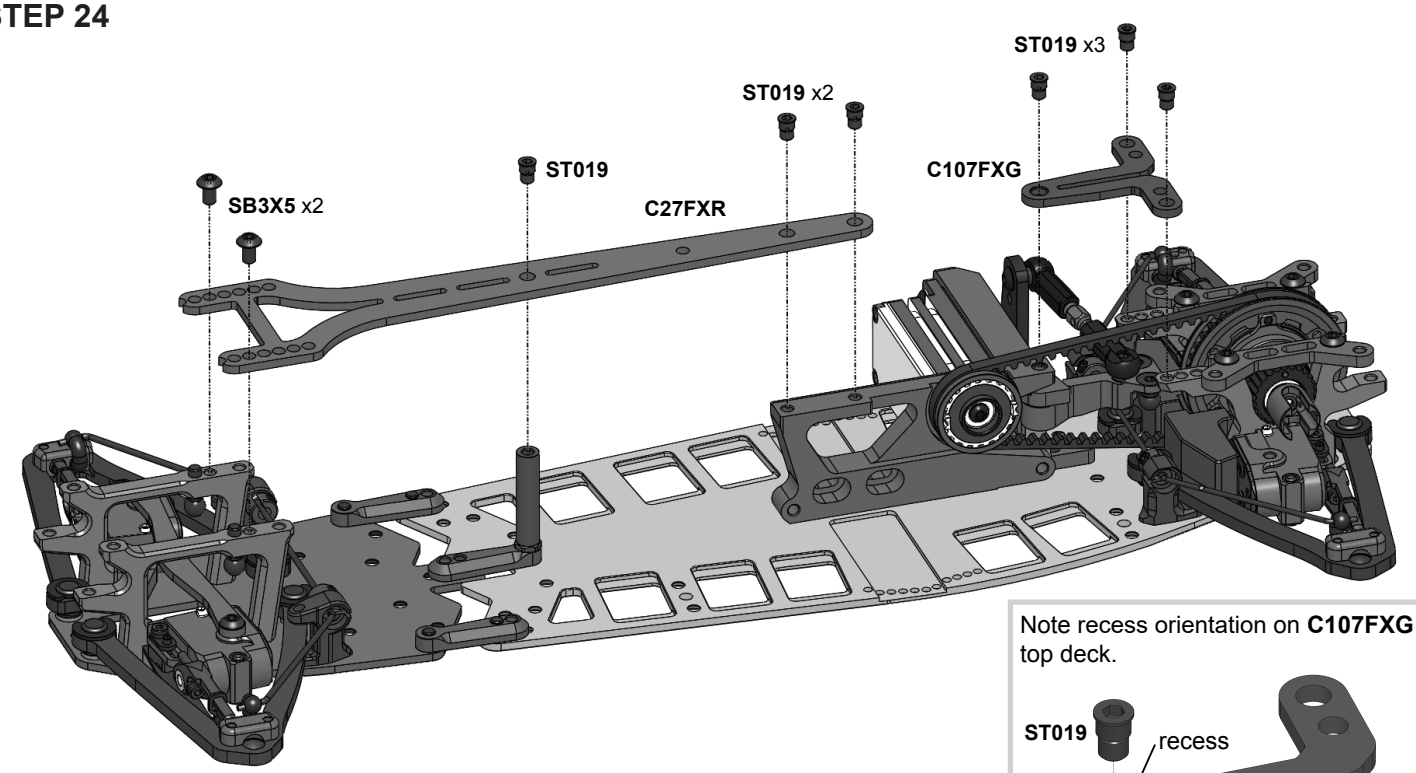
⚠**Note:** Note: not all low-profile servos share the same height. To avoid interference with Motor position, make sure to use a servo no taller than 18.5mm as shown:



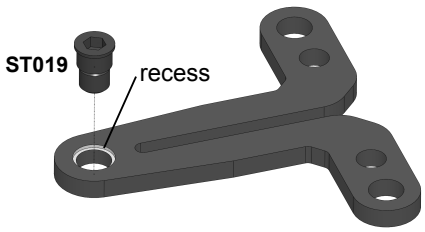
STEP23



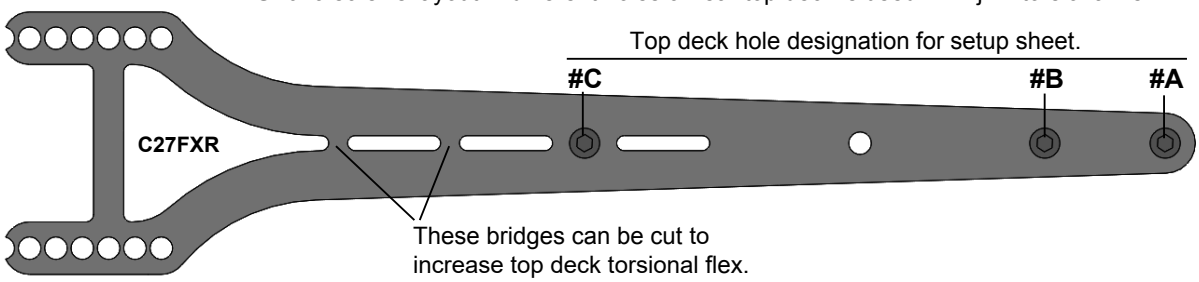
STEP 24



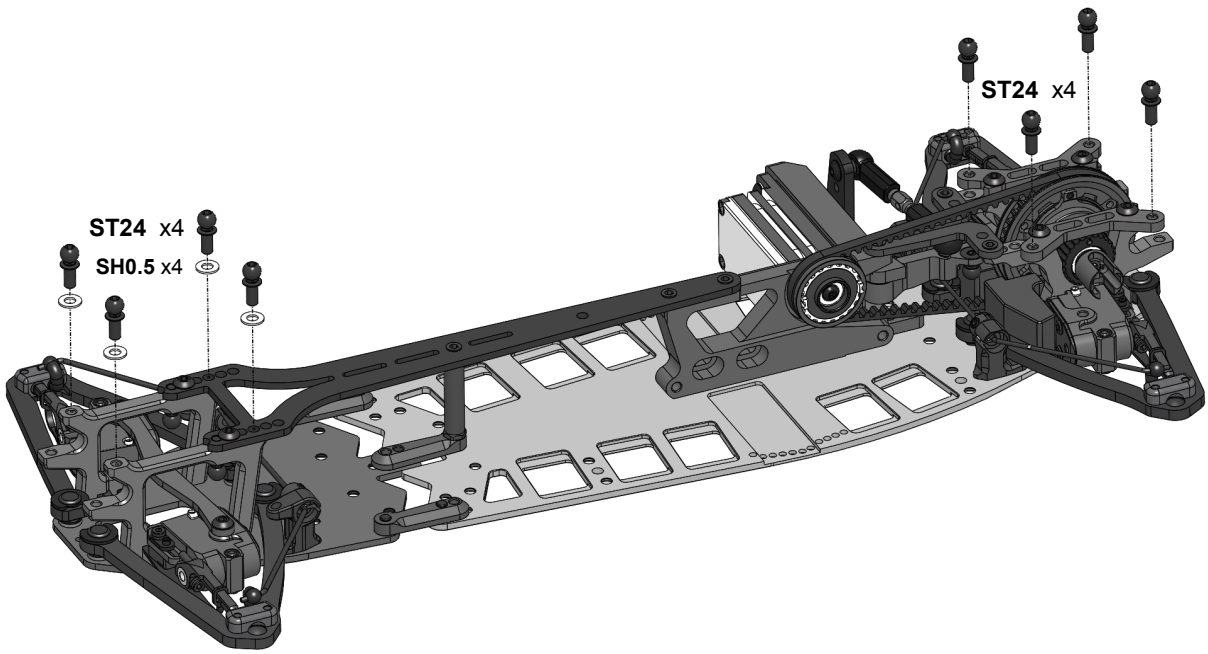
Note recess orientation on **C107FXG** top deck.



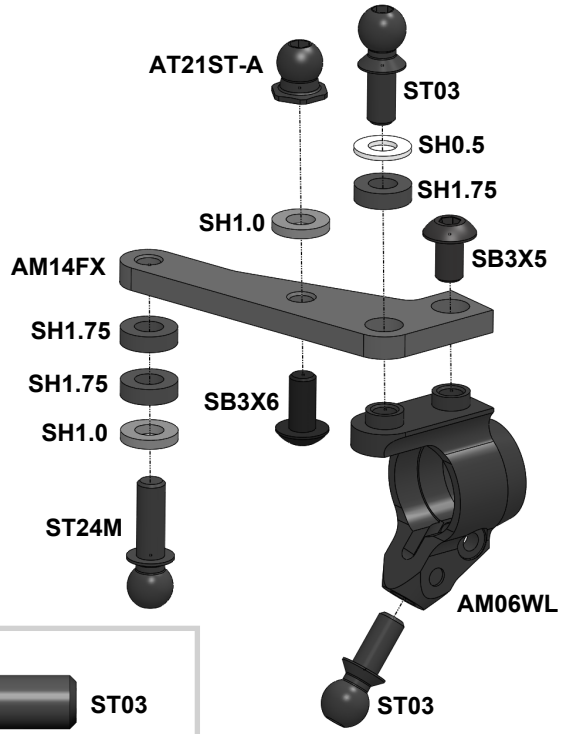
ST019 screws layout in different holes of rear top deck is used to adjust torsional flex.

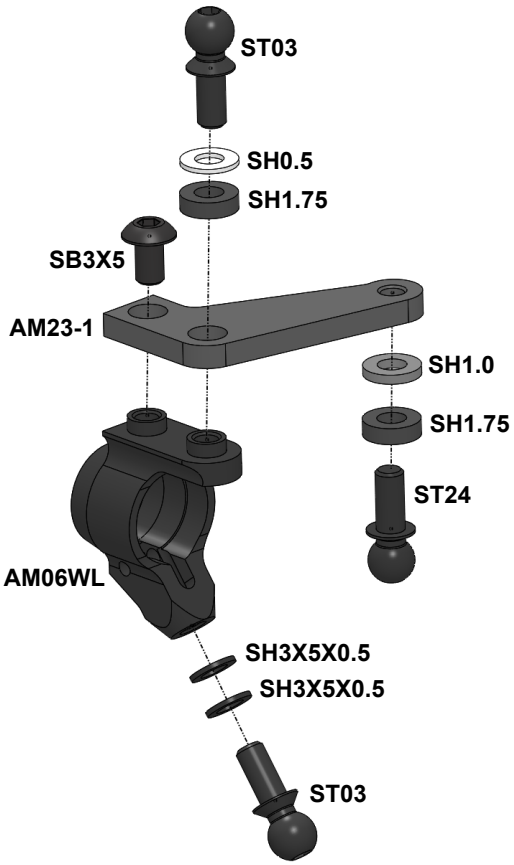


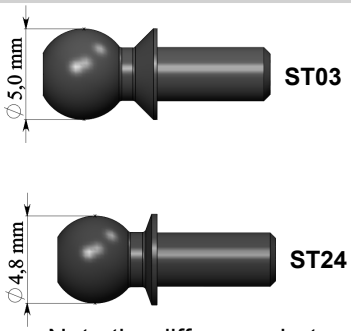
STEP 25



STEP 26



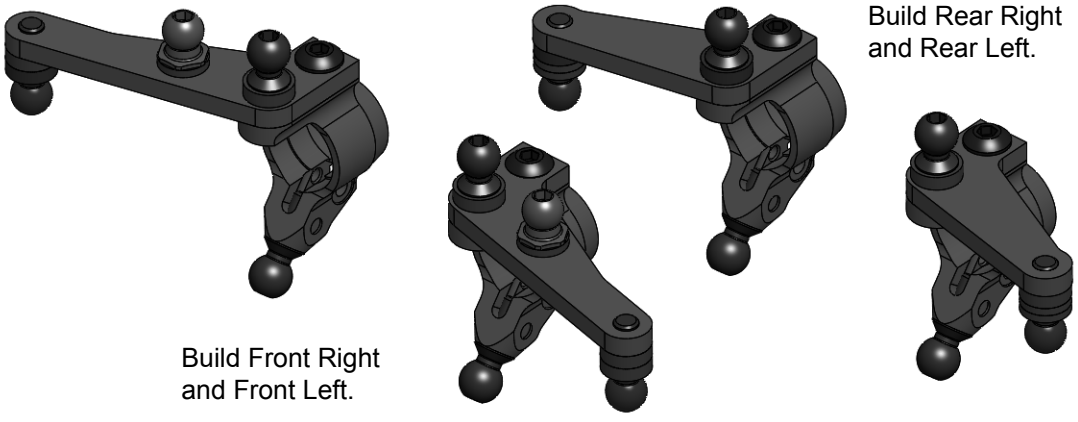




Note: The last turns of the lower **ST03** Ball Studs and SB3X5 screws can be tight. Screw them with force.

STEP 26 FINISHED

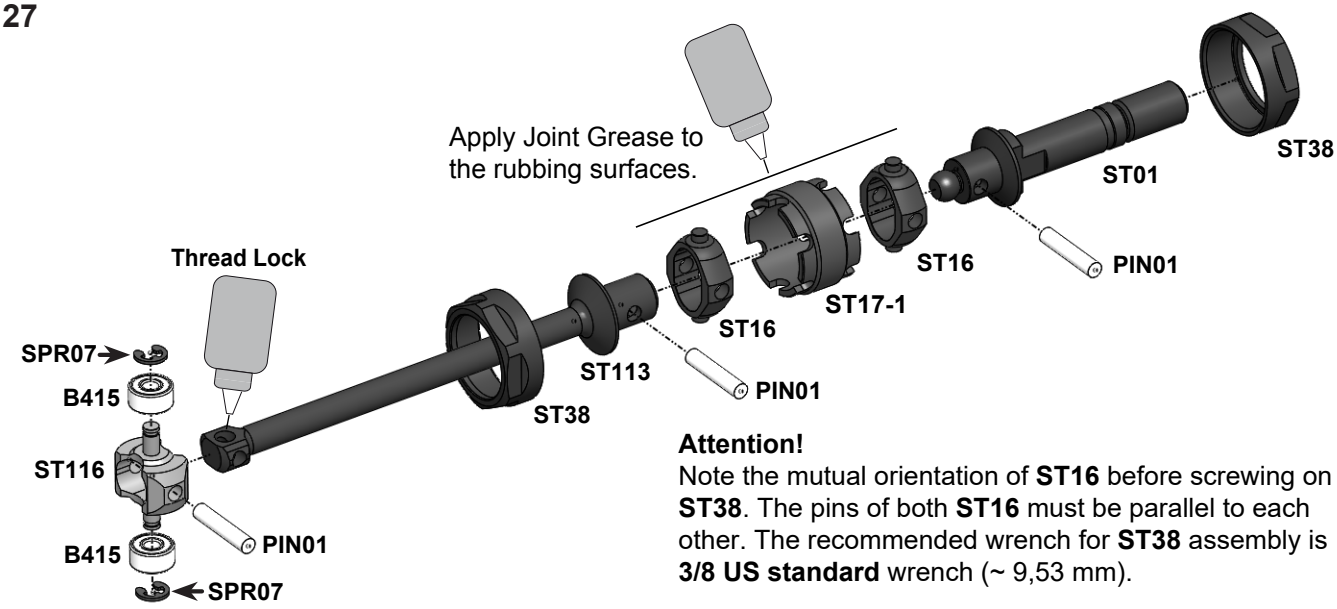
Note: Use other combinations of **SH0.5, SH1.0** and **SH1.75** Spacers under appropriate Pivot Balls and Ball Studs to adjust your car set-up to better suit different track conditions.



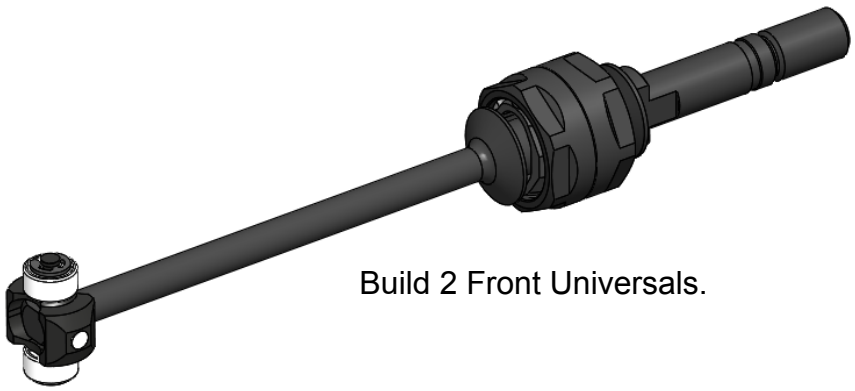
Build Front Right and Front Left.

Build Rear Right and Rear Left.

STEP 27

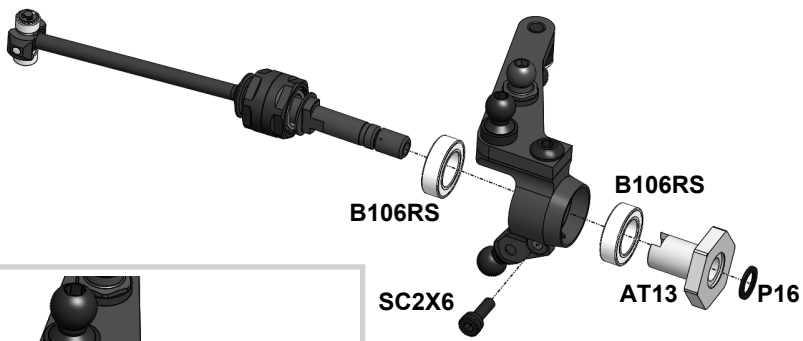


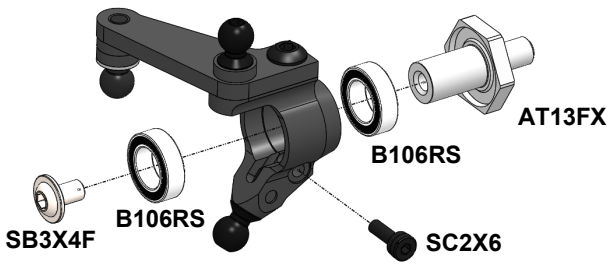
Attention!
Note the mutual orientation of **ST16** before screwing on **ST38**. The pins of both **ST16** must be parallel to each other. The recommended wrench for **ST38** assembly is **3/8 US standard** wrench (~ 9,53 mm).

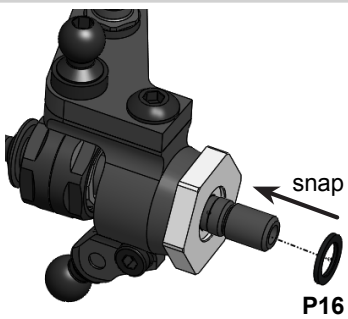


Build 2 Front Universals.

STEP 28

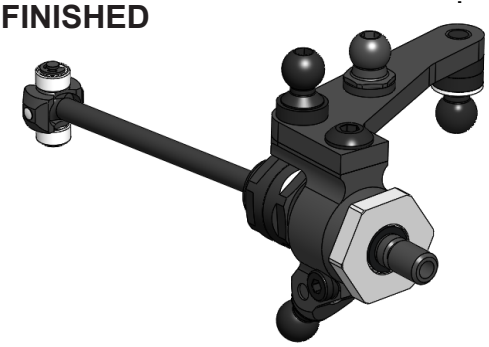




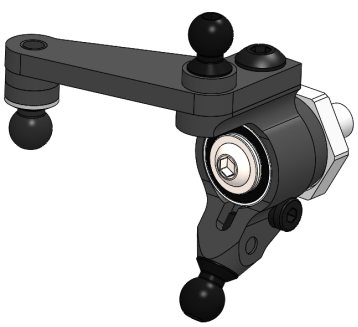


Press **P16** lock ring on the axle to fix it. For disassembly hit on the outer edge of the axle or press down on it.

STEP 28
FINISHED



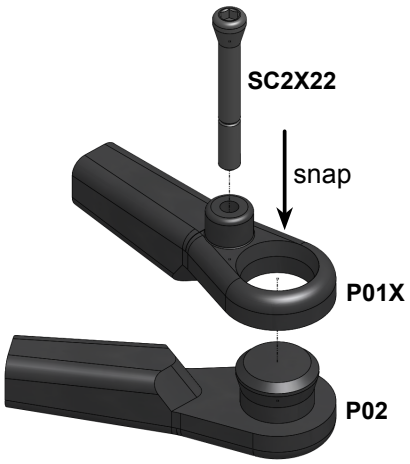
Build 2 Front Hubs.



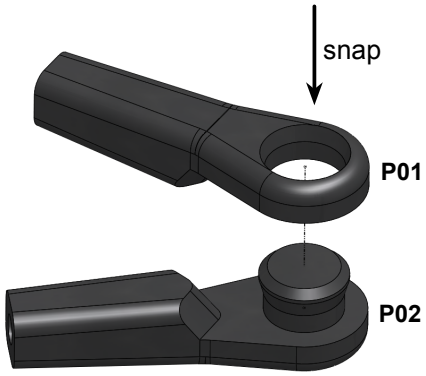
Build 2 Rear Hubs.

STEP 29

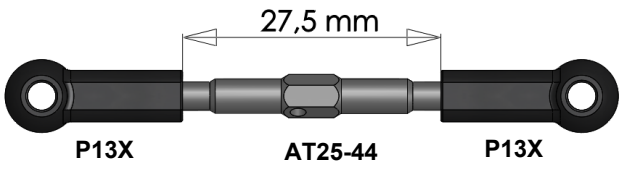




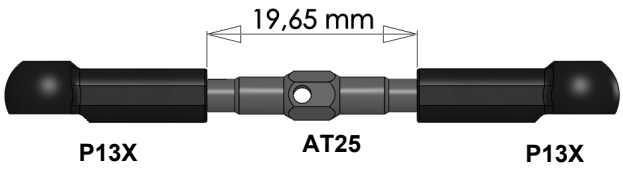
Build two for the front



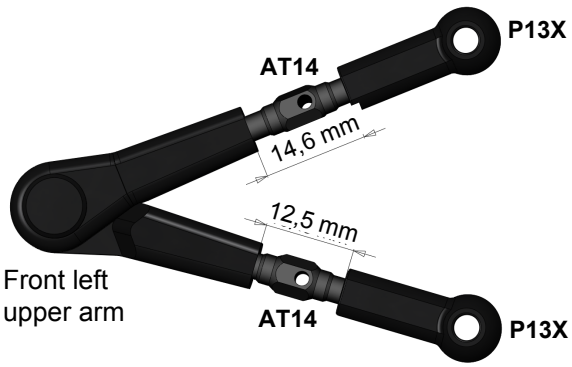
Build two for the rear



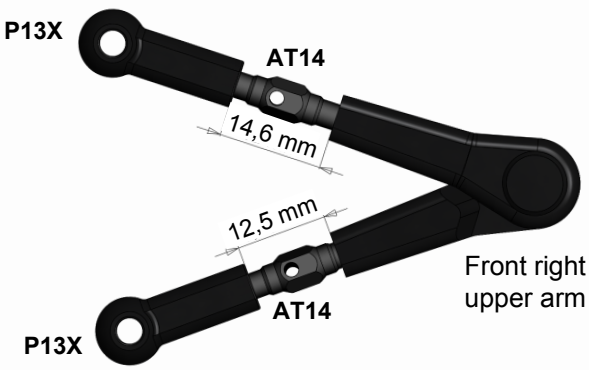
Build 2 front steering rods



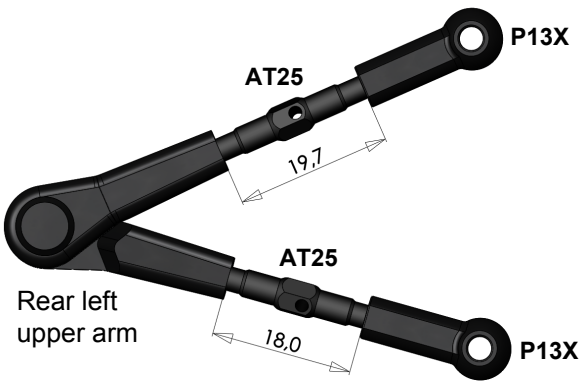
Build 2 rear steering rods



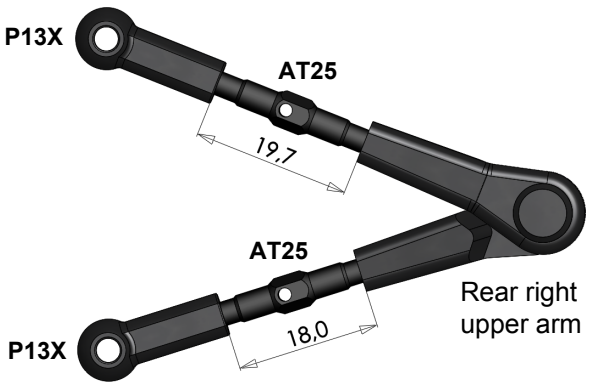
Front left upper arm



Front right upper arm



Rear left upper arm

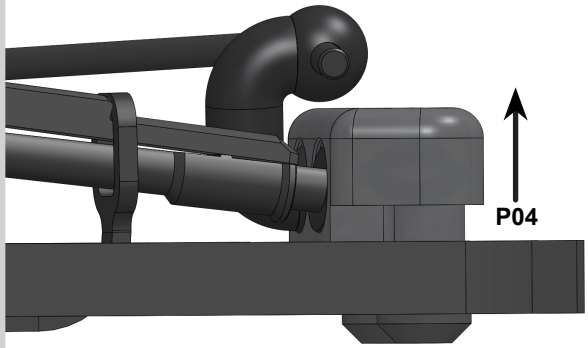


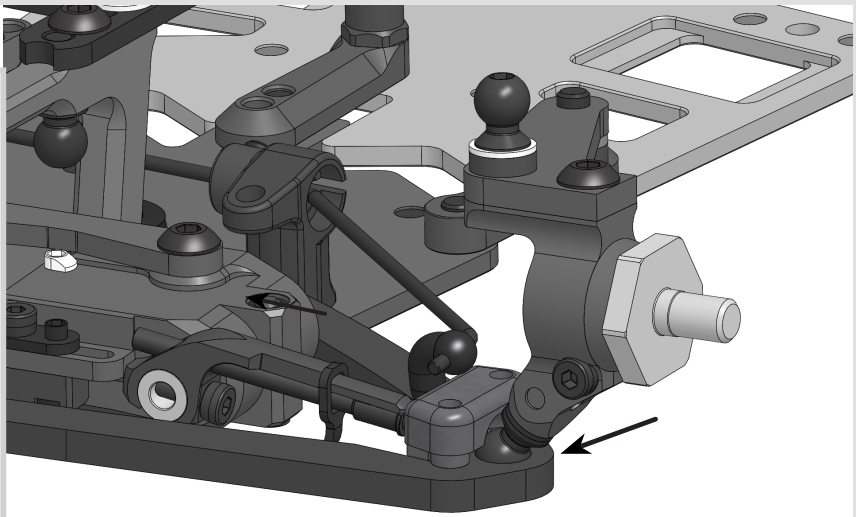
Rear right upper arm

Notes: The given rods and arms sizes are approximately for 6° front caster and 4° rear caster, 2° both front and rear cambers, 2,0° rear toe-in and 1° front toe out angles. Use a setup station or angles gauge for more precise suspension geometry setting. See our recommendations on page #18 for quick and easy suspension geometry change.

STEP 30

Unscrew **SB25X8** screws by ~3 turns and shift **P04** up to create ~1.5mm gap between **P04** and the lower arm.

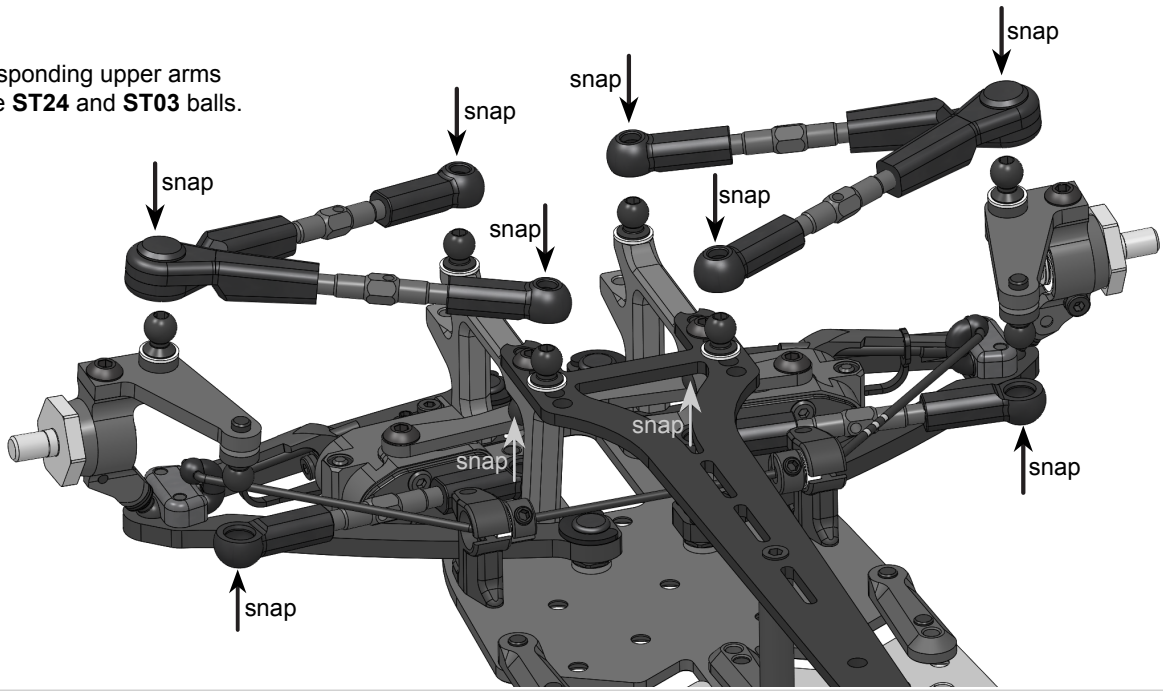


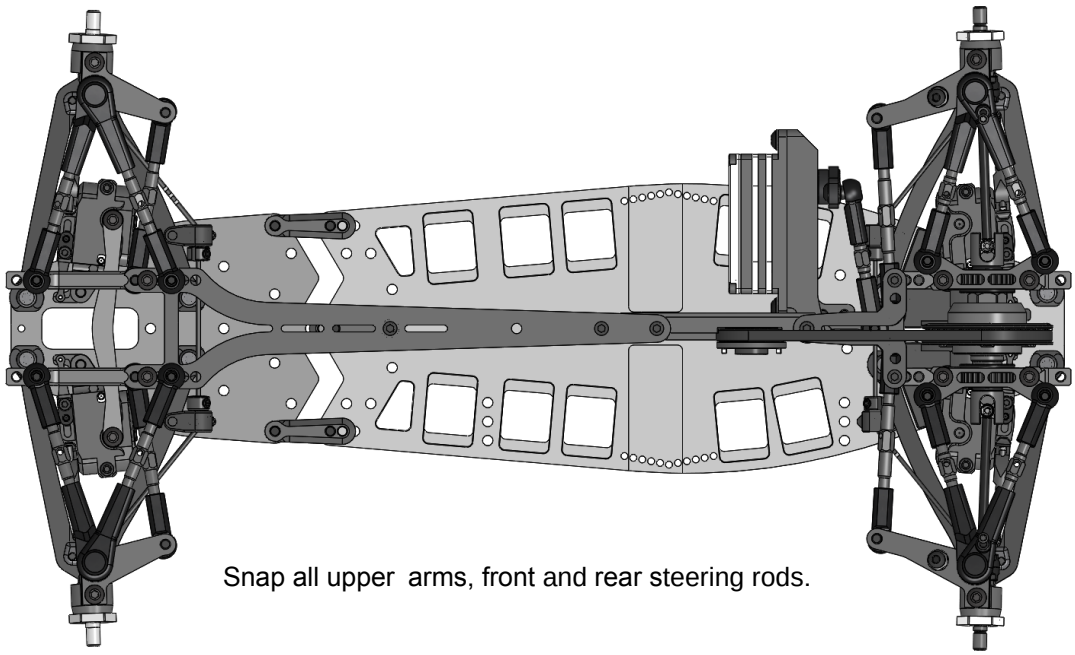


Insert **P03** ball into the spherical cavity of the lower arm and tighten **SB25X8** screws. Insert the driveshaft inner joint into the outdrive of diff/spool.
Note: Don't overtighten **SB25X8** screws to avoid **ST03 ball** binding!!!
Achieve a free action of the ball joint with a minimal play.

STEP 31

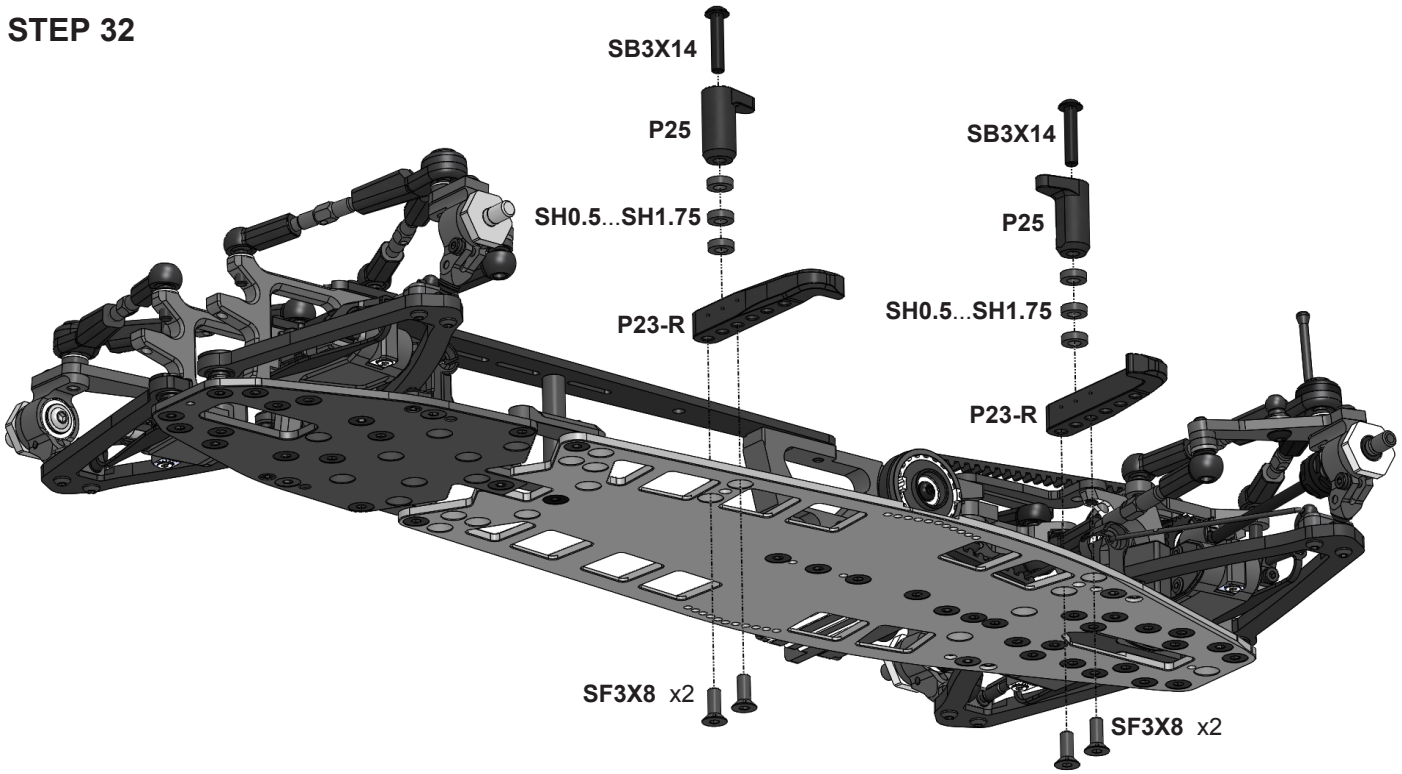
Snap the corresponding upper arms and rods on the **ST24** and **ST03** balls.





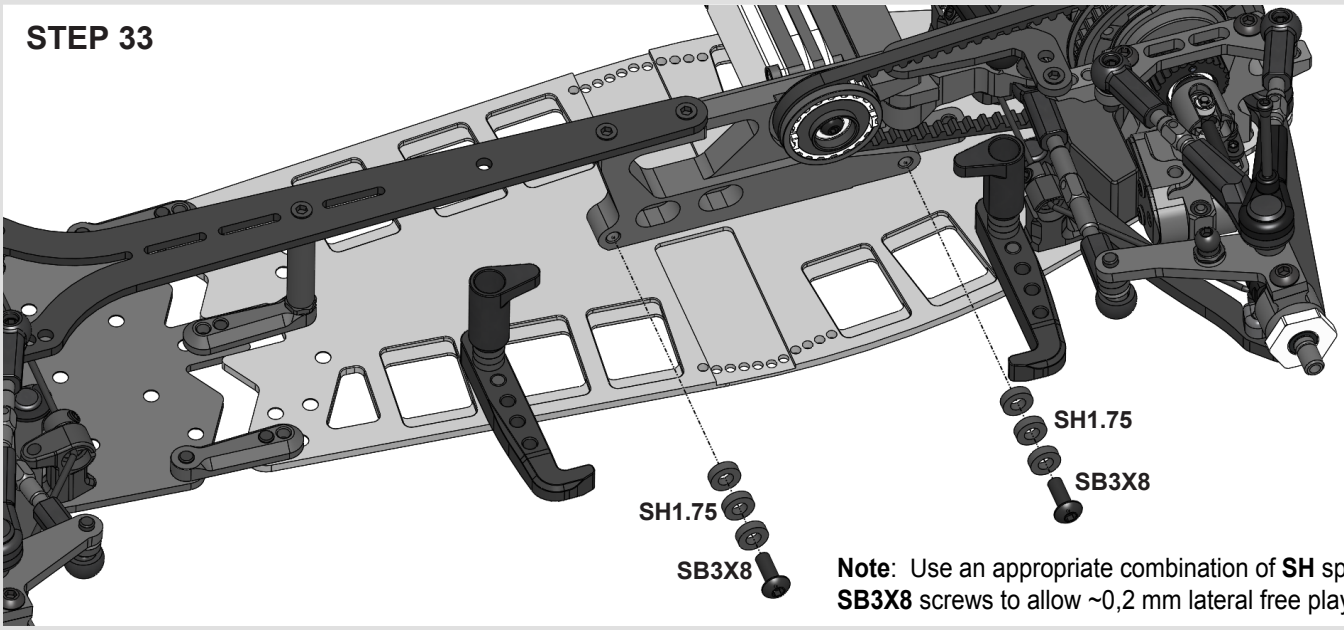
Snap all upper arms, front and rear steering rods.

STEP 32



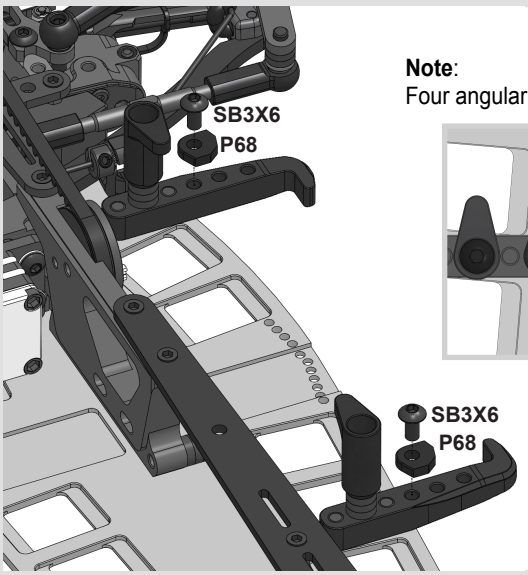
Note: Use an appropriate combination of **SH** spacers under **P25** clamps to allow ~0,3 mm vertical free play of the battery.

STEP 33

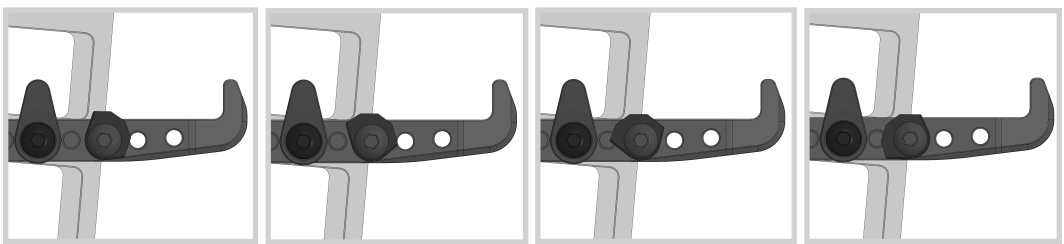


Note: Use an appropriate combination of **SH** spacers under **SB3X8** screws to allow ~0,2 mm lateral free play of the battery.

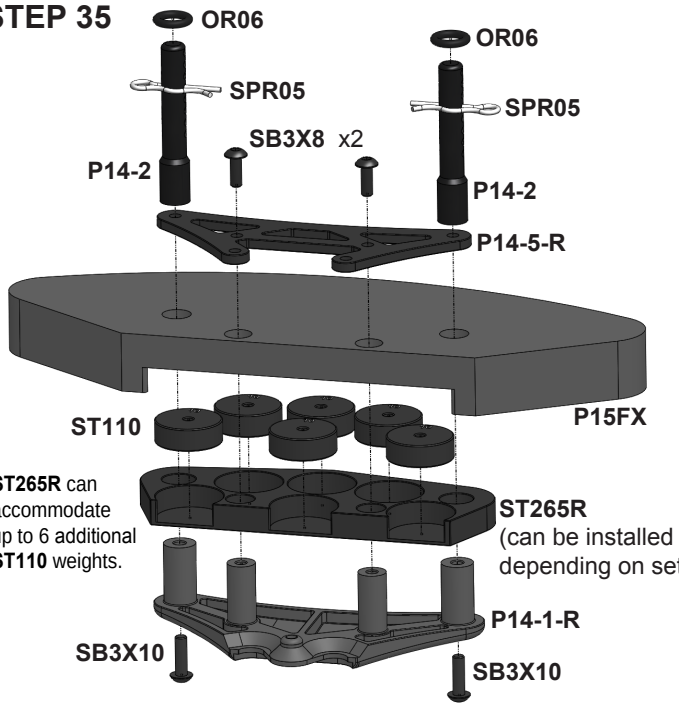
STEP 34



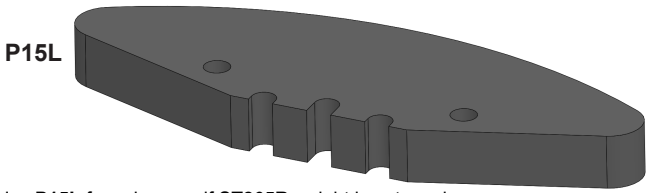
Note:
Four angular positions of **P68** adjuster provide 0,25..1,0 mm range to adjust the longitudinal free play of the battery.



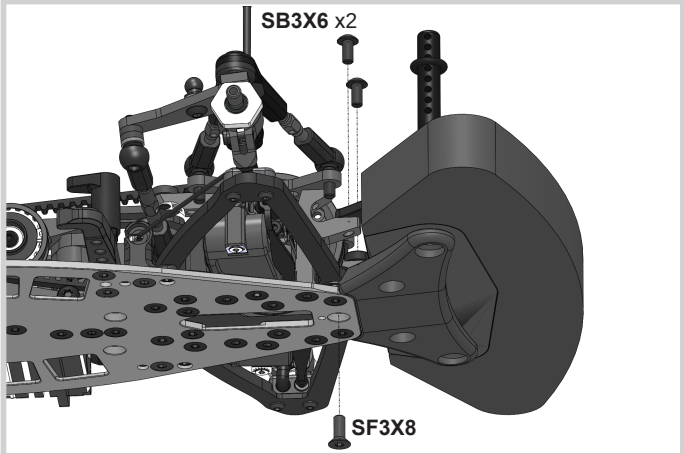
STEP 35



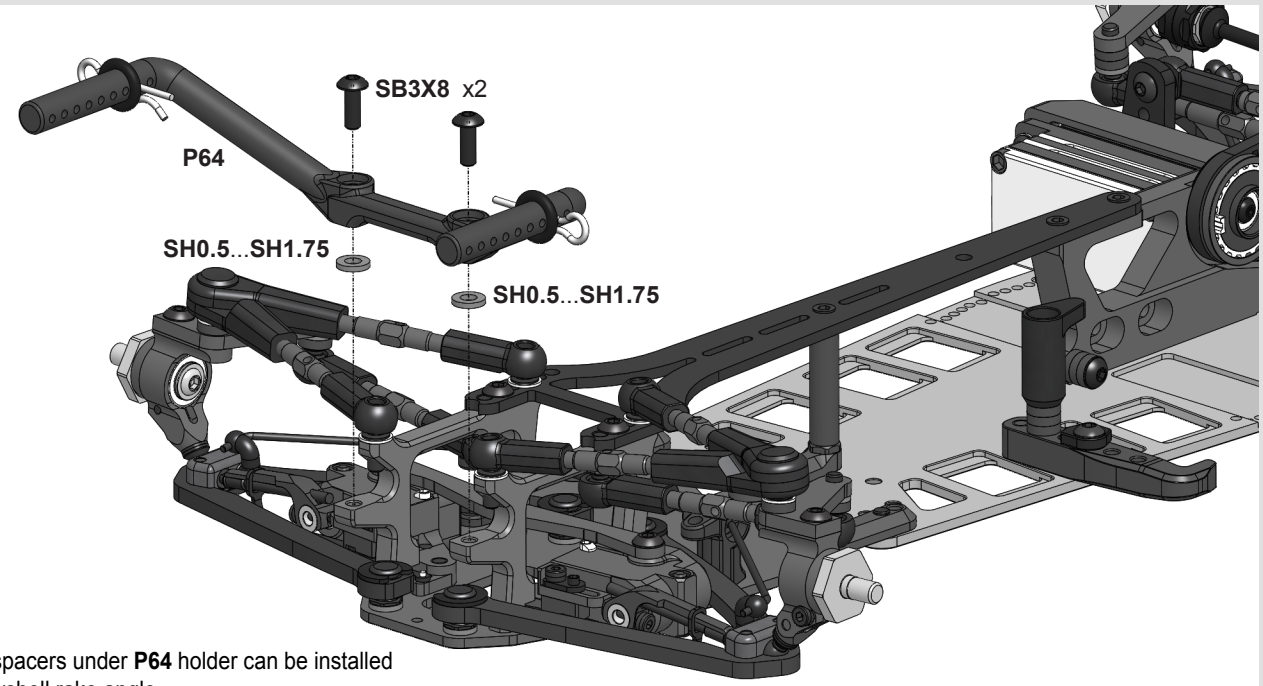
ST265R can accommodate up to 6 additional **ST110** weights.



Use **P15L** foam bumper if **ST265R** weight is not used.

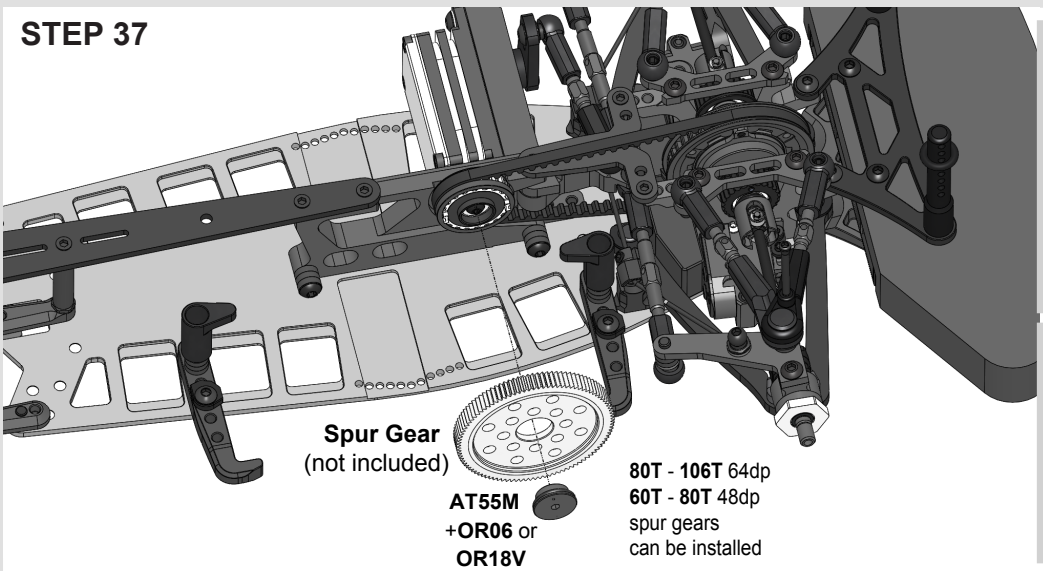


STEP 36

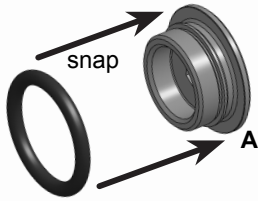


Note: **SH0.5**...**SH1.75** spacers under **P64** holder can be installed to adjust the bodyshell rake angle.

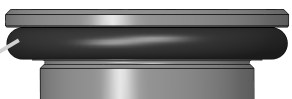
STEP 37



80T - **106T** 64dp
60T - **80T** 48dp
spur gears
can be installed

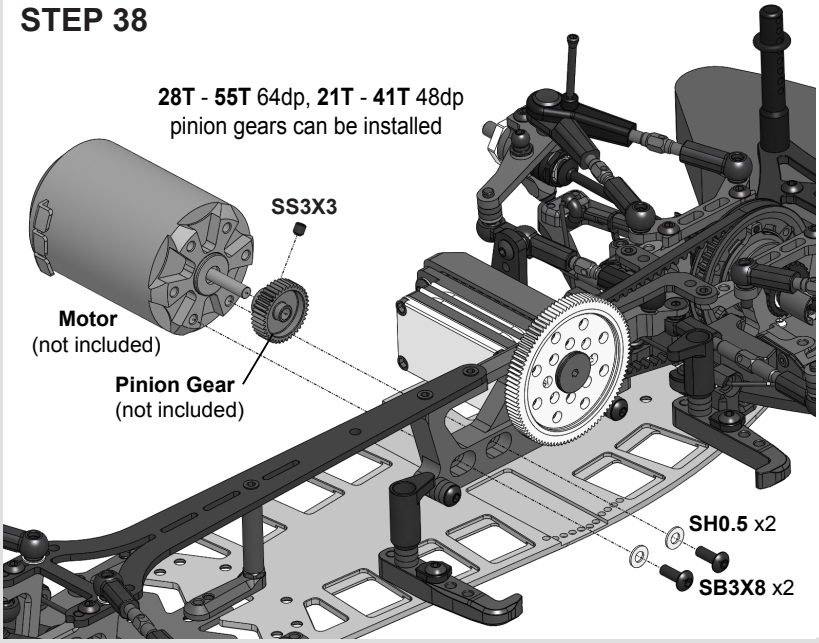


OR06
or
OR18V depending on the spur gear thickness

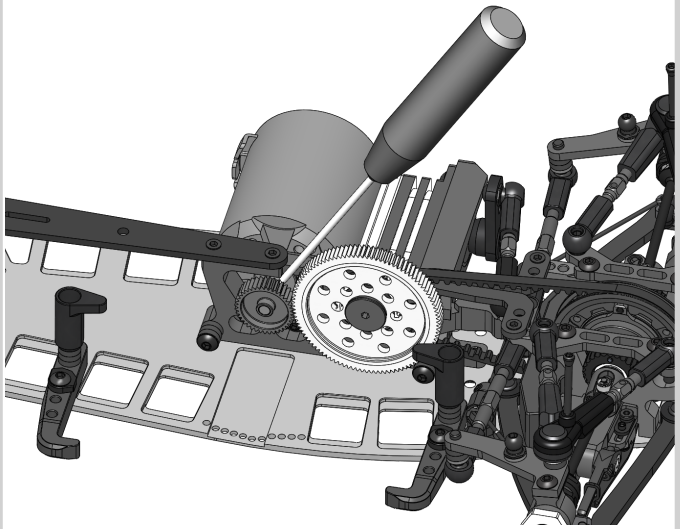


OR06
or
OR18V depending on the spur gear thickness

STEP 38

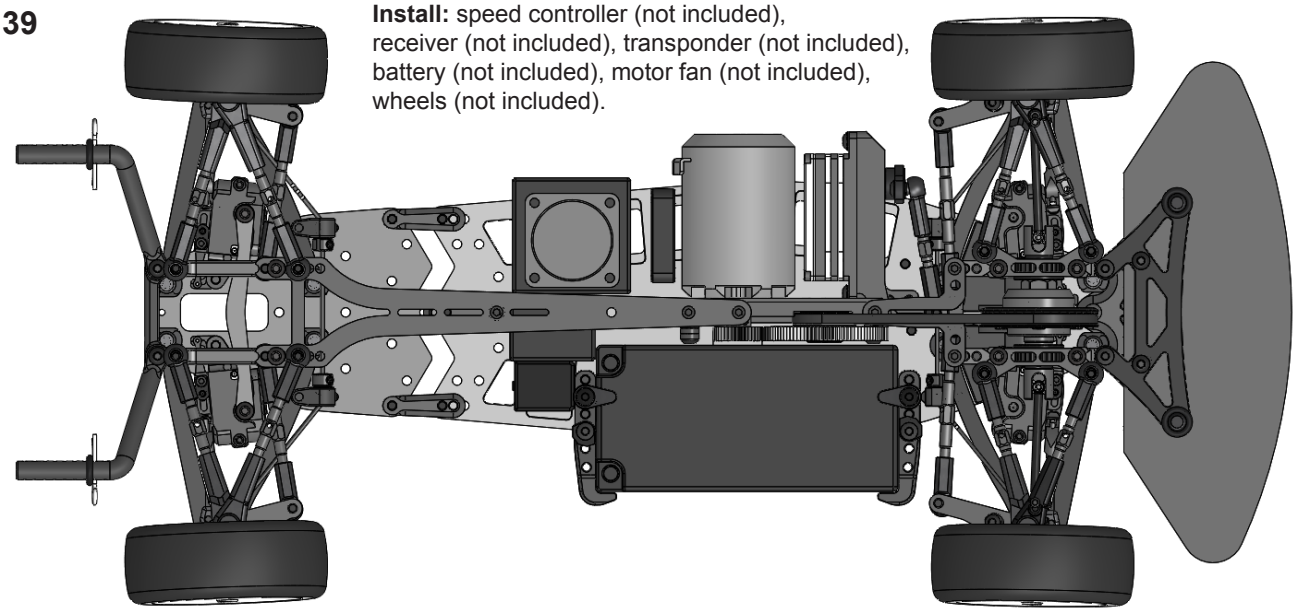


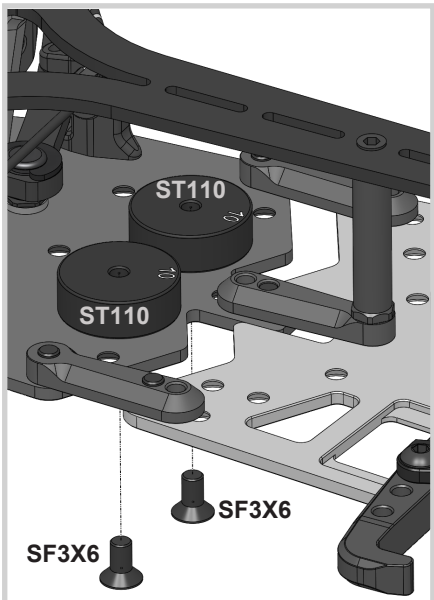
Note: This orientation of the hex driver should be used for tightening of the pinion gear set screw.



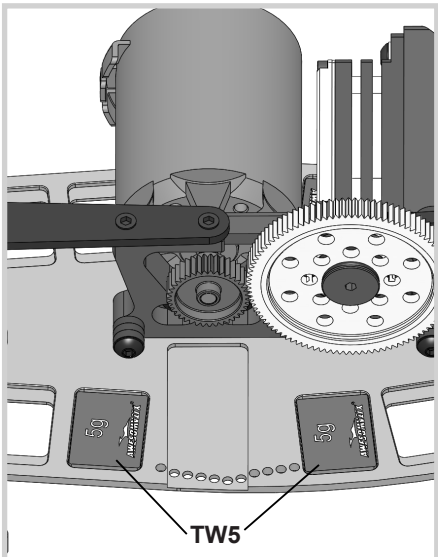
STEP 39

Install: speed controller (not included), receiver (not included), transponder (not included), battery (not included), motor fan (not included), wheels (not included).

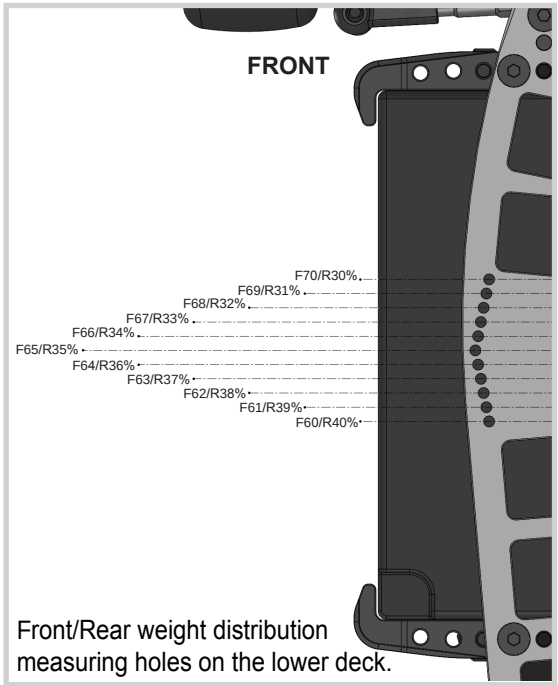




ST110 and ST105 weights can be used for balancing.

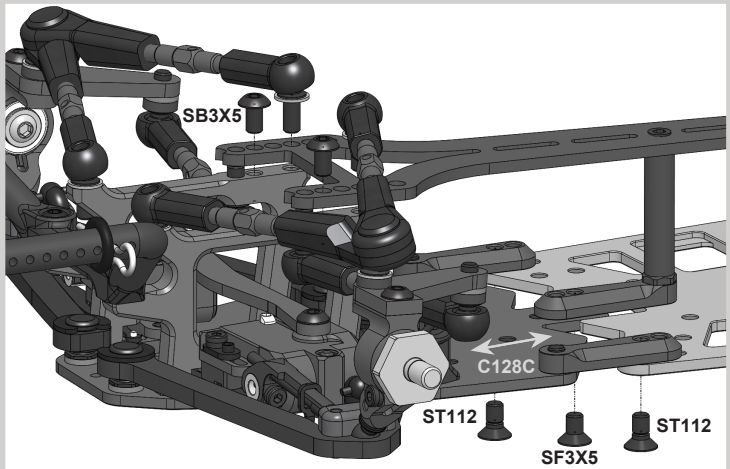


Optional **TW5** tungsten weights in the special recesses of the lower deck can be used for balancing.

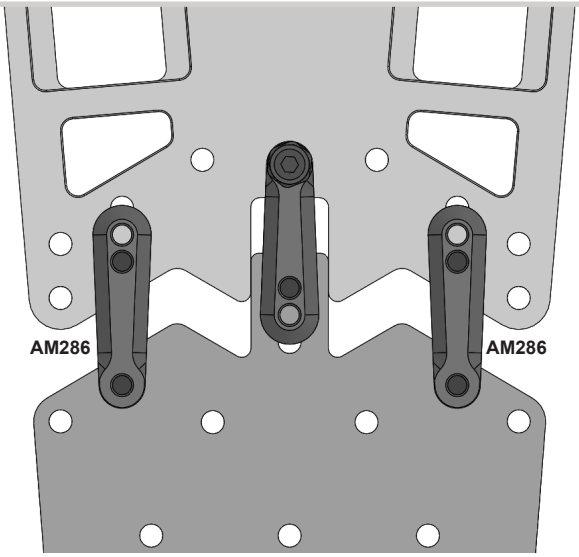


Front/Rear weight distribution measuring holes on the lower deck.

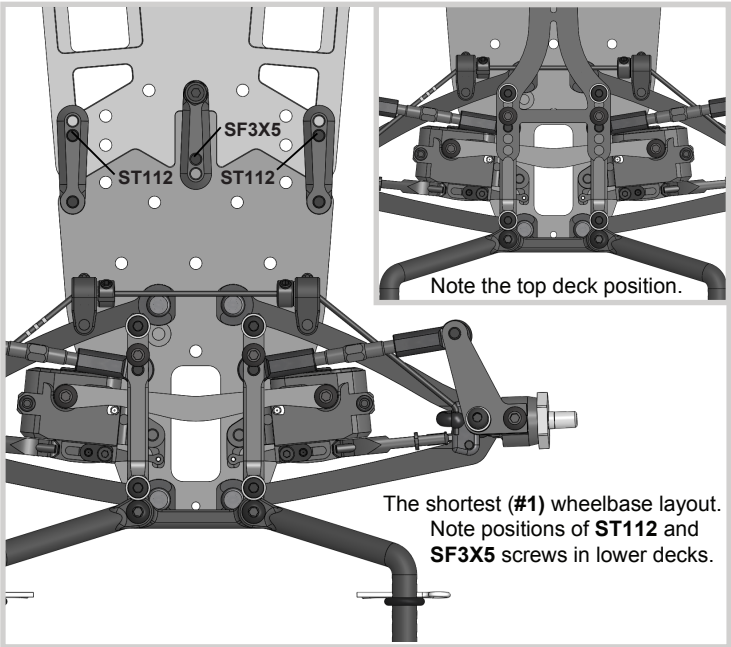
WHEELBASE SETTING



Unscrew only 7 things for a wheelbase change: two **ST112**, one **SF3X5**, two **SB3X5** screws and two **ST24** ballstuds.
Then bend the top deck up a little and slide **C128C** rear lower deck back or forward. **C128C** rear lower deck can be installed in 4 positions, allowing for wheelbase adjustments of up to 10.5mm in 3.5mm increments.

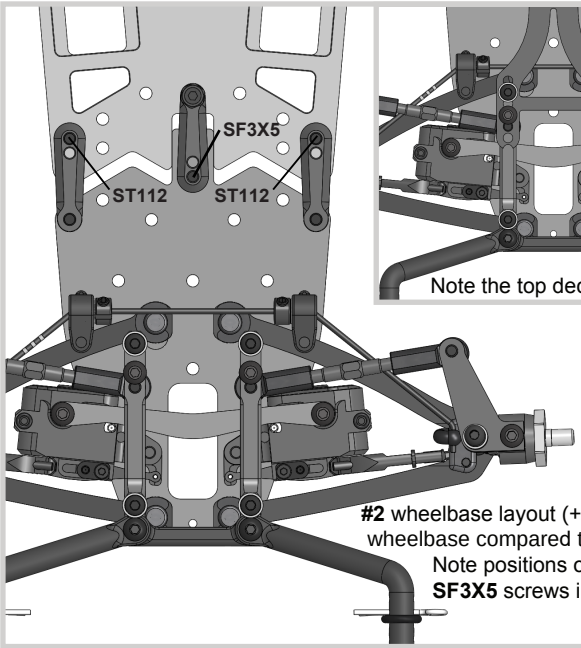


AM286 links can be mounted in narrow position to increase rear chassis flex.



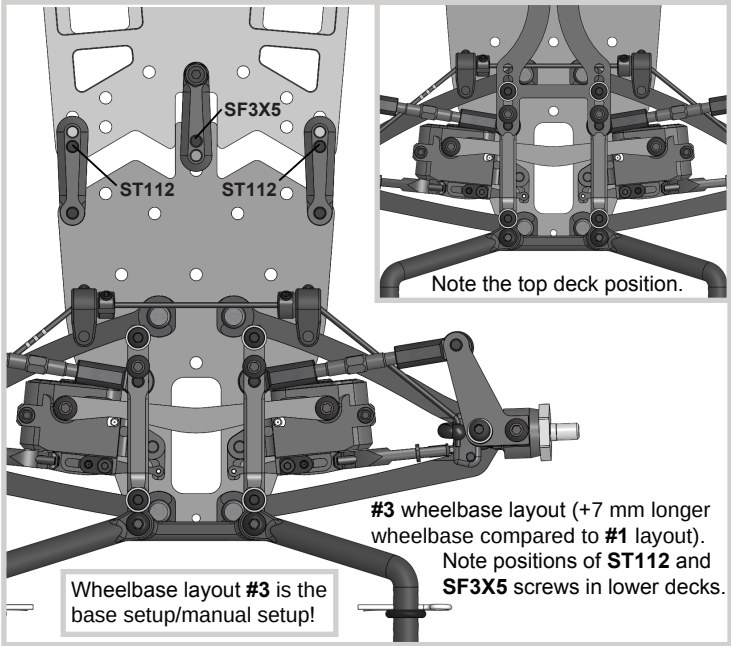
Note the top deck position.

The shortest (**#1**) wheelbase layout. Note positions of **ST112** and **SF3X5** screws in lower decks.



Note the top deck position.

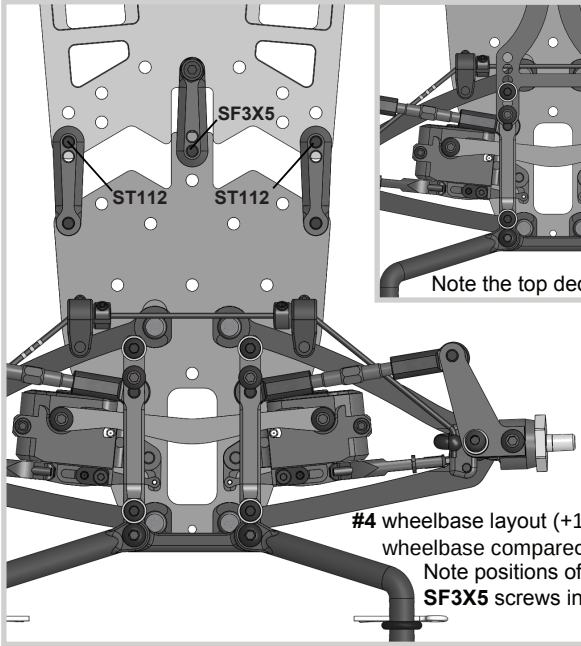
#2 wheelbase layout (+3,5 mm longer wheelbase compared to **#1** layout). Note positions of **ST112** and **SF3X5** screws in lower decks.



Note the top deck position.

#3 wheelbase layout (+7 mm longer wheelbase compared to **#1** layout). Note positions of **ST112** and **SF3X5** screws in lower decks.

Wheelbase layout **#3** is the base setup/manual setup!

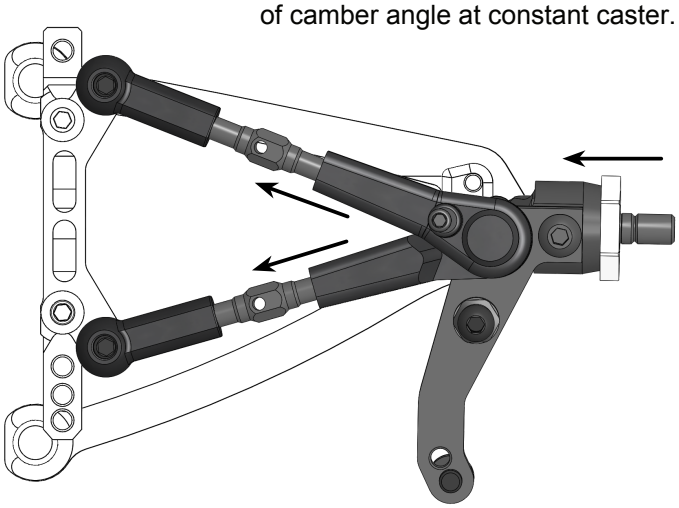


Note the top deck position.

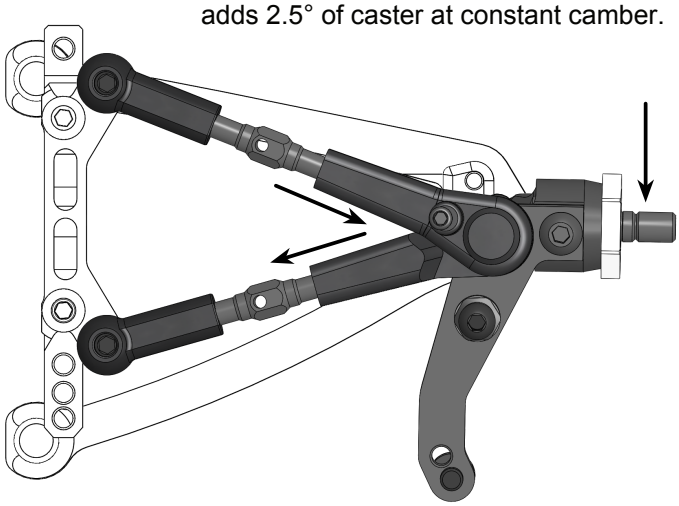
#4 wheelbase layout (+10,5 mm longer wheelbase compared to **#1** layout). Note positions of **ST112** and **SF3X5** screws in lower decks.

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.

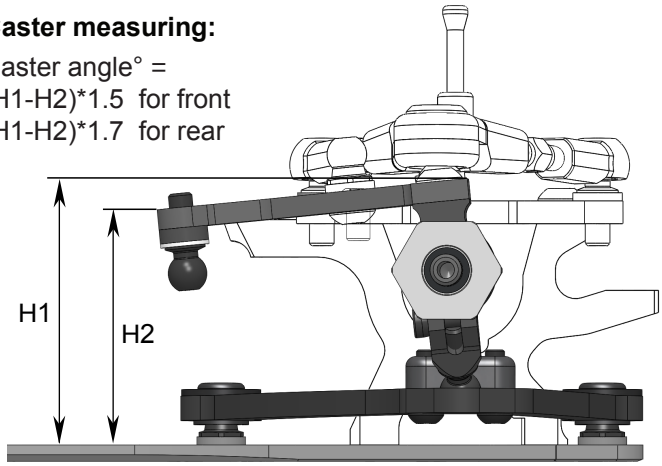


Caster adjustment rule: Simultaneous front upper rod 0.5mm elongation and rear upper rod 0.5mm shortening adds 2.5° of caster at constant camber.



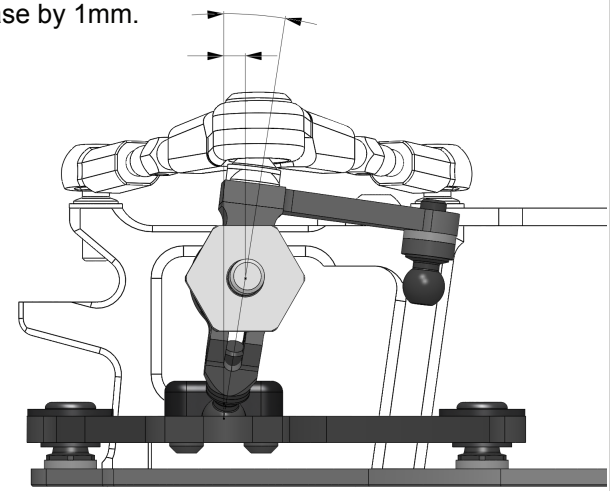
Caster measuring:

Caster angle° =
(H1-H2)*1.5 for front
(H1-H2)*1.7 for rear

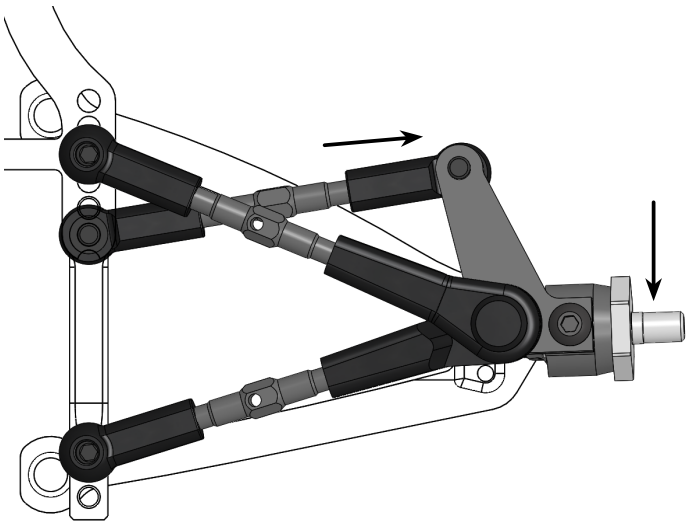


TIP / Recommendation to use
MAX-02-001 - MXLR Awesomatix Caster Tool

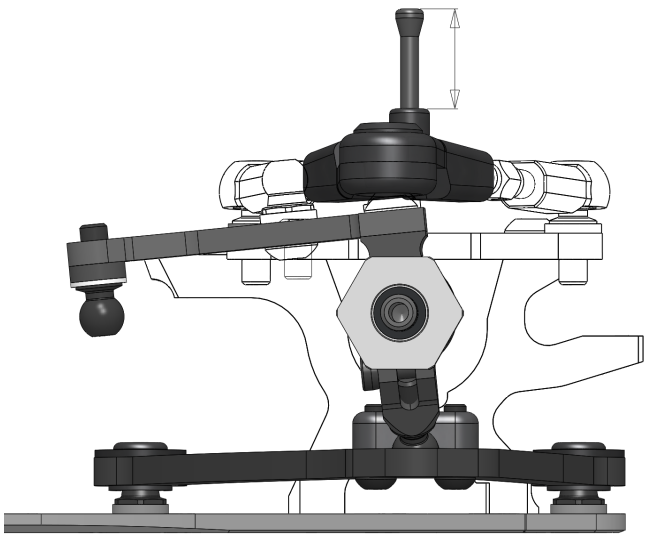
Wheelbase fine adjustment: Use rear suspension caster change for this adjustment. Adding 4°caster shortens wheelbase by 1mm.



Rear suspension toe-in adjustment:
Rear rod 0.5mm elongation reduces the toe-in by 1.0°

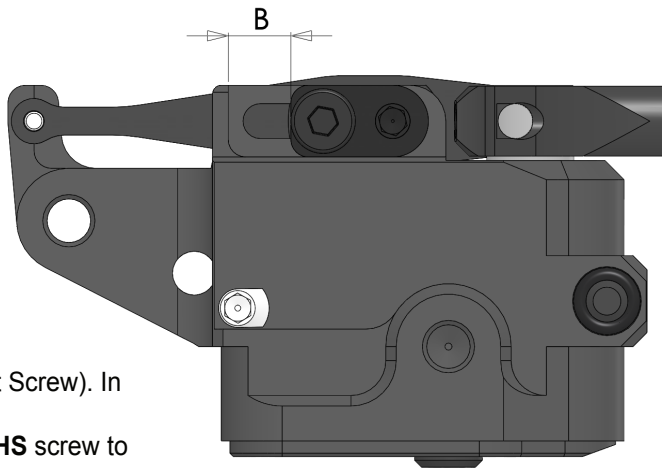


Body shell front end downtravel adjustment:
Use **SC2X22** screws to adjust bodyshell down travel limit.



D4 dampers setting technique

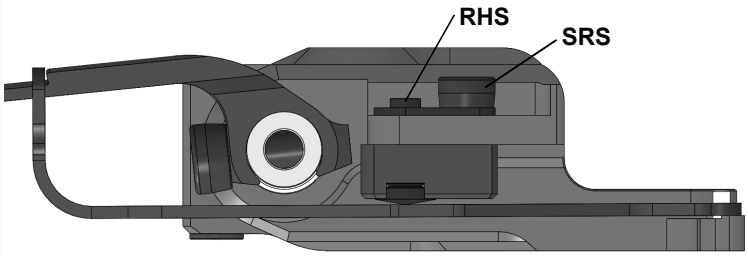
Attention! **D4** dampers allow to adjust the damping level, spring rate and progressivity of damping without replacing of the shock's oil and spring and without disassembling the damper.



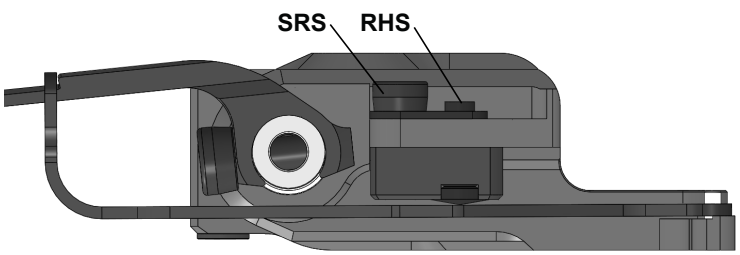
1. Damping and Shock Spring rate setting
Increase **B** distance (slide **AT119R / NAT119X** holder outward) to increase the spring rate. Reduce **B** distance (slide **AT119R / AT119X** holder inward) to reduce the spring rate. Use **SRS** (Spring Rating Screw) to unlock **AT119R / AT119X** holder and to lock it at the desirable position

2. Shock Spring preload setting
Spring preload and ride height of the car is adjusted via **RHS** (Ride Height Screw). In A800FXR kit **ST69-00-R / ST69X-00** screw is used as **RHS** screw.
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.

3. SRS/RHS Screws arrangements

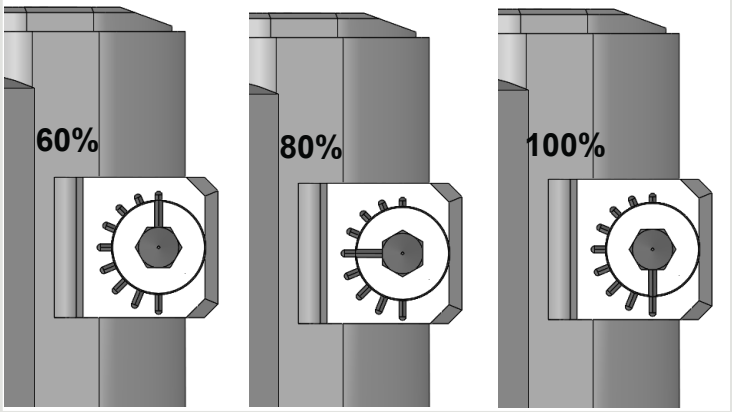


SRS/RHS screws arrangement I

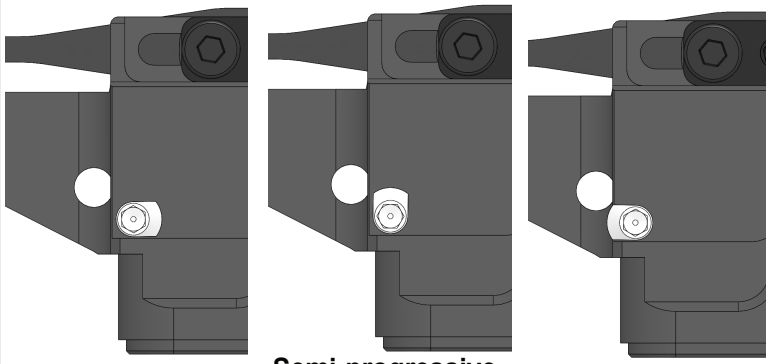


SRS/RHS Screws arrangement II

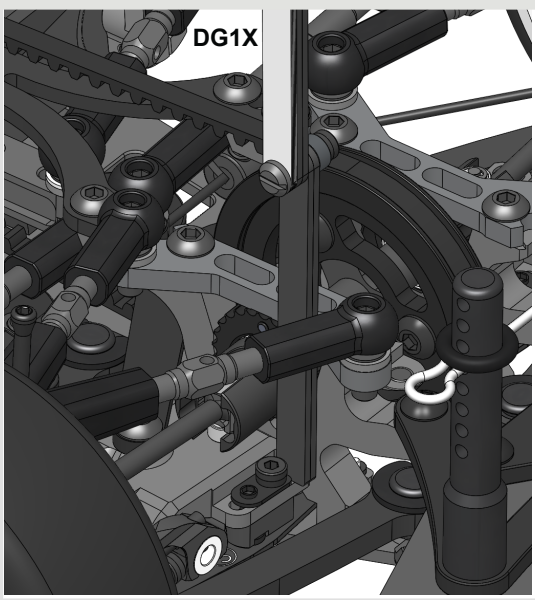
4. Damping level setting
ST143 valve angular position indicates the damping level from 60% to 100% in 5% increment.



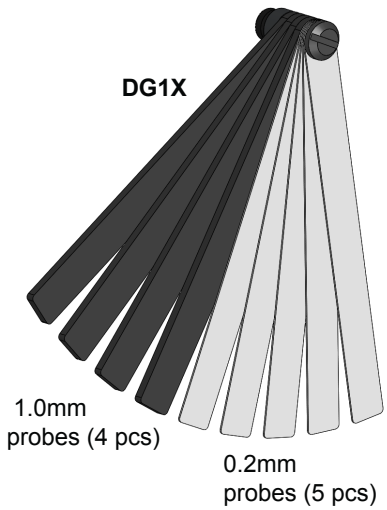
5. Damping progressivity setting
ST225 valve angular position indicates one of three possible damping progressivity levels.

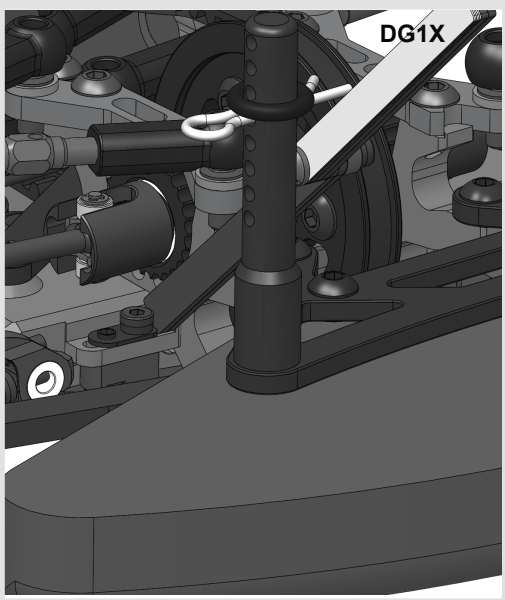


Linear mode | **Semi-progressive mode** | **Progressive mode**



6. DG1X gauge using





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
28																											7,19
29																										6,88	6,94
30																									6,59	6,65	6,71
31																								6,31	6,37	6,44	6,50
32																							6,06	6,12	6,18	6,23	6,29
33																						5,82	5,87	5,93	5,99	6,05	6,10
34																					5,64	5,64	5,70	5,76	5,81	5,87	5,92
35																				5,37	5,43	5,48	5,54	5,59	5,65	5,70	5,75
36																			5,17	5,23	5,28	5,33	5,38	5,44	5,49	5,54	5,59
37																		4,98	5,03	5,08	5,14	5,19	5,24	5,29	5,34	5,39	5,44
38																	4,80	4,85	4,90	4,95	5,00	5,05	5,10	5,15	5,20	5,25	5,30
39																4,63	4,68	4,73	4,77	4,82	4,87	4,92	4,97	5,02	5,07	5,12	5,16
40															4,47	4,51	4,56	4,61	4,66	4,70	4,75	4,80	4,85	4,89	4,94	4,99	5,04
41														4,31	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
42													4,16	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
43												4,02	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
44											3,89	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	
45										3,76	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		
46									3,63	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			
47								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				
48							3,40	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					
49						3,30	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						
50					3,19	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							
51				3,09	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								
52			3,00	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									
53		2,90	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										
54	2,85	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											
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												

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
21																					7,24
22																				6,82	6,91
23																			6,44	6,53	6,61
24																		6,10	6,18	6,25	6,33
25																	5,78	5,85	5,93	6,00	6,08
26																5,48	5,55	5,63	5,70	5,77	5,85
27															5,21	5,28	5,35	5,42	5,49	5,56	5,63
28														4,95	5,02	5,09	5,16	5,23	5,29	5,36	5,43
29													4,72	4,78	4,85	4,91	4,98	5,04	5,11	5,18	5,24
30												4,497	4,56	4,62	4,69	4,75	4,81	4,88	4,94	5,00	5,07
31											4,29	4,35	4,41	4,47	4,54	4,60	4,66	4,72	4,78	4,84	4,90
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
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	
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		
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			
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				
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					
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						
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							
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								
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									

AWESOMATIX A800FXR

SETUP SHEET

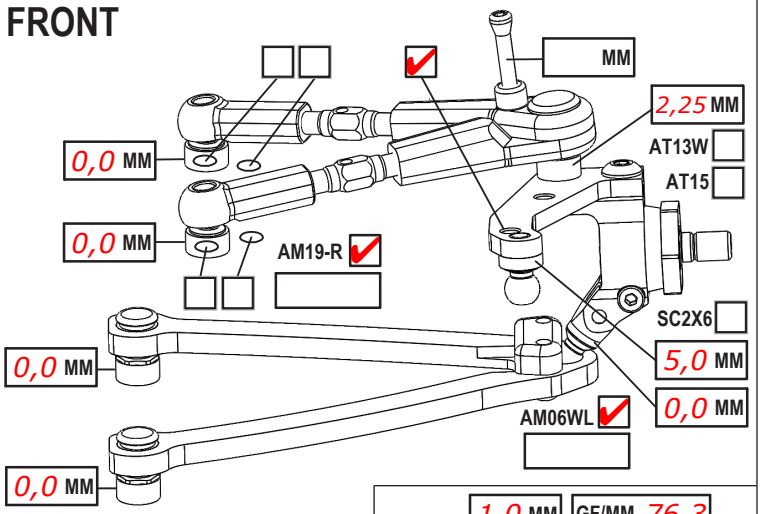
NAME BASE / KIT SETUP | DATE 2025 | TEMP. °C AIR / TRACK /

RACE | TRACK SURFACE ASPHALT ☐ CARPET ☐

TRACK | TRACK LAYOUT TECHNICAL ☑ MIXED ☑ FAST ☑

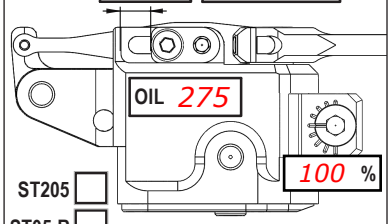
COUNTRY | CLASS 17.5T | TRACTION LOW ☑ MEDIUM ☑ HIGH ☑

FRONT



CAMBER ANGLE / °	2,0
CASTER ANGLE / °	6,0
TOE ANGLE / °	1,0 per side
RIDE HEIGHT / MM	5,2
DOWNSTOP / MM	6,0
UPSTOP / MM	/
ANTI-ROLL BAR Ø / MM	1,0
ARB STIFFENER 1/4 ☐ 1/2 ☐ 3/4 ☐ 1 ☐	
LOWER ARM EXTENSION	0 MM
STEER. ARM AM14FX ☑	
WHEEL SPACER / MM	0
DRIVE SPOOL ☐ DIFF ☑	
DRIVE POSITION UP ☐ DOWN ☐	
DIFF OIL 100k	DIFF SHIMS kit

1.0 MM | GF/MM 76.3

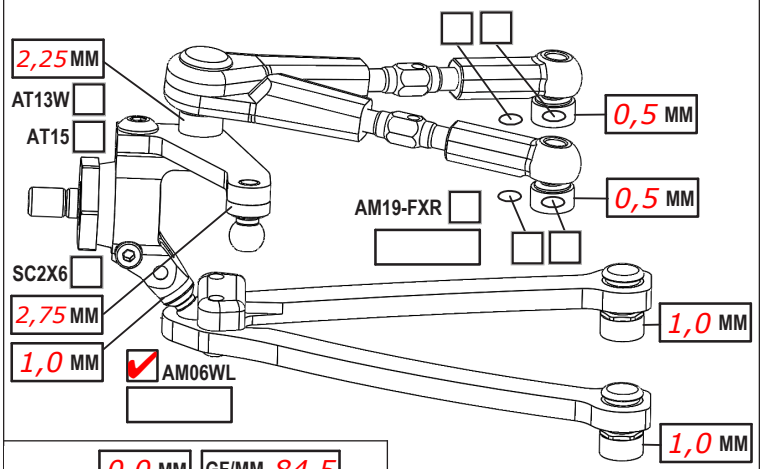


ST205 ☐ ST05-R ☐

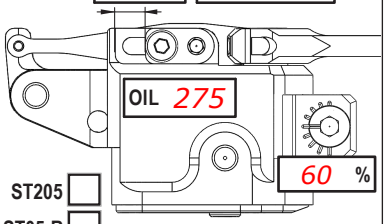
SHOCKS SETUP

DAMPER	D4 ☑		
ROTOR	2 HOLES ☑		
SPRING	STD ☑	S ☐	
SRS/RHS ARR.	I ☑	II ☐	
PSS SETUP	30% ☐	25% ☐	15% ☐
DAMPING	LINEAR ☐	P1 ☐	P2 ☐
DAMPER SPACER / MM	0		

REAR



0.0 MM | GF/MM 84.5



ST205 ☐ ST05-R ☐

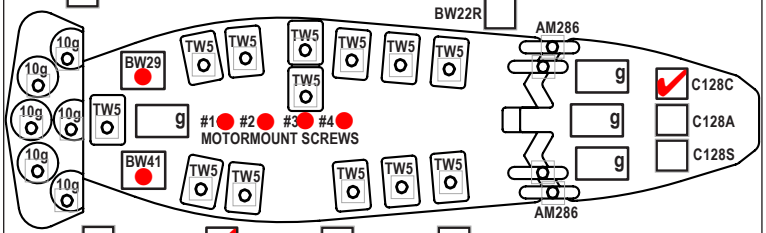
SHOCKS SETUP

DAMPER	D4 ☑		
ROTOR	2 HOLES ☑		
SPRING	STD ☑	S ☐	
SRS/RHS ARR.	I ☑	II ☐	
PSS SETUP	30% ☐	25% ☐	15% ☐
DAMPING	LINEAR ☐	P1 ☐	P2 ☐
DAMPER SPACER / MM	0		
C45FXR	YES ☑	NO ☐	

CAMBER ANGLE / °	2,0
CASTER ANGLE / °	-4 (short)
TOE ANGLE / °	2,0
RIDE HEIGHT / MM	5,4
DOWNSTOP / MM	4,3
UPSTOP / MM	/
ANTI-ROLL BAR Ø / MM	1,3
ARB STIFFENER 1/4 ☐ 1/2 ☐ 3/4 ☐ 1 ☐	
LOWER ARM EXTENSION	0 MM
STEER. ARM AM23-1 ☑	
WHEEL SPACER / MM	0
WHEEL BASE #1 ☐ #2 ☐ #3 ☑ #4 ☐	

ST265R ☐

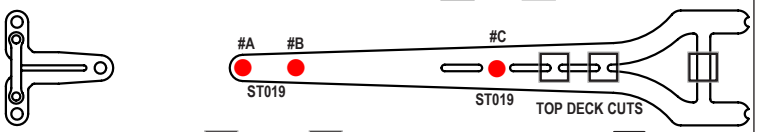
CHASSIS FLEX AND WEIGHT SETTINGS



AM220FXR ☐ C01FXR-A ☑ C01FXR-C ☐ C01FXR-S ☐

☐ BUMPER TOP PLATE CUT | BUMPER TOP PLATE P14-5-R ☐ C07R ☐ C07RF ☐

☐ AM288 | FRONT BUMPER P15FX ☐ P15L ☐ OTHER



FRONT TOP DECK C107FXG ☐ C107FXC ☐ REAR TOP DECK 27FXR ☑

SINGLE TOP DECK C27FXR-L ☐

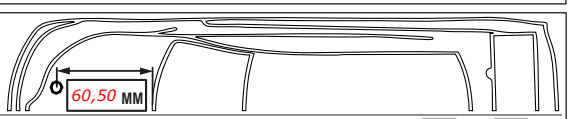
TIRES	
INSERTS	
SIDE WALLS GLUE Ø / MM F R	
ADDITIVE	TIME MIN. F R
TOTAL WEIGHT	WEIGHT DISTRIBUTION % F 65 R 35

NOTES:

MOTOR LATERAL SHIFT / MM	SERVO
MOTOR	SERVOHORN / HEIGHT MXLR / 16,00mm
SPUR PINION 1 RATIO 0.00	STEER TRAVEL IN 23° OUT
BODY ZooRacing Gorilla MAX	BATTERY
WING Std.	RECEIVER
ESC	RADIO
ESC SETTING	
BEST LAPTIME	QUALIF./FINAL POSITION /

BODY POSITIONS

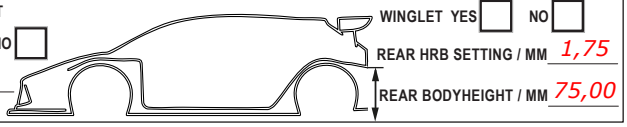
MIDDLE HOLE <--> BOTTOM WINDOW LINE



FRONT BODY POST

ORING YES ☐ NO ☐

HOLE # 7



WINGLET YES ☐ NO ☐

REAR HRB SETTING / MM 1,75

REAR BODYHEIGHT / MM 75,00

COMMENTS:

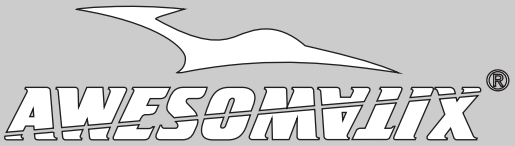
Standard Spare Parts

Parts#	Description
AM06WL	Steering Block
AM14FX	Steering Arm
AM19-R	Upper Arm Holder
AM23-1	Rear Steering Arm
AM24FX	Central Servo Holder
AM77FX	Motor Mount FWD
AM180FX	Bellcrank
AM240-D4	Damper Cover
AM242R-D4	Damper Body R
AM242L-D4	Damper Body L
AM278-FXR	Bulkhead
AM285	Rear Bulkhead
AM286	Link
AT13	Wheel Hex
AT13FX	Rear Wheel Hex FWD
AT14	Turnbuckle
AT21ST-A	Pivot Ball
AT25	Turnbuckle Long
AT25-44	Turnbuckle Long 44 mm
AT55M	Spur Nut
AT119R	Spring Screw Holder
AT120-FX	20T Alloy Pulley FWD
AT123B	GD2B Case1
AT124B	GD2B Case2
AT142	Sway Bar Stopper
AT160	Strut FXR
AT241	Damper Rotor
AT243-D4	Progression Damper Plate
AT247	Damper Piston Probe
ST01	Front Axle
ST03	Ball Stud
ST05-R	Shock Rod
ST69-00-R	Linear Spring Screw
ST113	IFJ Universal Bone
ST116	IFJ/IRJ Cross
ST16	U-Joint Cross
ST17-1	Universal Ring
ST019	Top Deck Screw
ST23X	IRJ Outdrive
ST24	4,8x6 mm Ball Stud
ST24M	4,8x8 mm Ball Stud
ST31-1	GD2 Output Axle
ST38	Universal Nut
ST68	Flanged Wheel Nut
ST102R	Damper Rod Guide Rear
ST102F	Damper Rod Guide Front
ST105	Round Weight 5g
ST110	Round Weight 10g
ST112	Centering Screw
ST122-1	Damper Screw
ST143	Damper Valve
ST225	Progression Valve
ST265R	Bumper Weight FX 60 g
G07	GD2 Satellite Gear
G08	GD2 Bevel Gear
P01	Ball Joint-1
P01X	Ball Joint
P02	Ball Joint-2
P03X	Arm Ball Cap
P04	Arm Hasp
P05	Sway Bar Joint
P07	Arm Clip
P12X	Sway Bar Holder
P12FXR	Sway Bar Holder
P13X	Ball End
P14X	Bumper Set
P15FX	Foam Bumper FWD
P15L	Foam Bumper
P16	Lock Ring
P23-R	Outer Battery Holder
P25	Battery Clamp
P39	GD2 Cross Pin
P46R	Diff Piston
P56	Antenna Holder
P63-R	Damper piston
P67-D4	Dampers Stand Plate

Parts#	Description
P68	Battery Adjuster
P110	Bearing Housing
P138A	38T Pulley
C01FXR-A	Front Lower Deck Alloy
C27FXR	Rear Top Deck
C45FXR	Damper Brace Rear
C107FXG	Front Top Deck
C128C	Rear Lower Deck Carbon
C204R	Suspension Arm
C204L	Suspension Arm
BW29	Front Weight 29 g
BW41	Front Weight 41 g
SWB-R-1.0	Sway Bar 1,0 mm
SWB-R-1.1	Sway Bar 1,1 mm
SWB-R-1.2	Sway Bar 1,2 mm
SWB-R-1.3	Sway Bar 1,3 mm
SPR01	Shock Spring
SPR23-R	Shock Pointer
SPR05	Body Clip
SPR07	E-Ring
SH3X5X0.5	3x5x0.5 mm Shim
SH0.5	6x3x0,5 mm Spacer (silver)
SH1.0	6x3x1,0 mm Spacer (gray)
SH1.75	6x3x1,75 mm Spacer (black)
SH12X1.5	4x12x1,5 mm Spacer
SH3X5X0.1	3x5x0,1 mm Shim
WA02	3x5x0,2 mm Washer
WA03	5x15x0,3 mm Washer
PIN01	1,5x7,8 Pin
PIN02	1,5x5,8 Pin
OR13V	1x13 mm O-ring
OR05V	GD O-Ring Medium
OR0876V	7,6x0,8 mm O-Ring Viton
OR1010V	1,0x1,0 mm O-Ring
OR2010V	2,0x1,0 mm Oring Viton
OR2005V	2,0x0,5 mm Oring Viton
OR1005V	1,0x0,5 mm Oring Viton
OR06	5 mm O-RING
OR52V	5x2 mm O-Ring Viton
OR155V	Damper O-Ring
OR18V	1x8 mm O-ring Viton
B106RS	MR106RS Bearing
B85	MR85 Bearing
B84SS	MR84ZZ Bearing
B63SS	MR63ZZ Bearing
B415	B415ZZ Bearing
SC2X4	M2x4 Cap Head Screw
SC2X6	M2x6 Cap Head Screw
SC2X8	M2x8 Cap Head Screw
SB2.5X8	M2,5x8 Button Head Screw
SS3X3	M3x3 Set Screw
SS3X4	M3x4 Set Screw
SS3X5	M3x5 Set Screw
SB3X4F	M3x4 Flange Head Screw
SB3X5	M3x5 Button Head Screw
SB3X6	M3x6 Button Head Screw
SB3X8	M3x8 Button Head Screw
SB3X10	M3x10 Button Head Screw
SB3X14	M3x14 Button Head Screw
SF3X5	M3x5 Flat Head Screw
SF3X6	M3x6 Flat Head Screw
SF3X8	M3x8 Flat Head Screw
SF3X10	M3x10 Flat Head Screw
BEL225B	Belt 225 mm Bando
DG1XM	Damper Guage Set
STS-A800FXR	A800FXR Stickers Sheet

Optional Parts

Parts#	Description
C01FXR-C	Front Lower Deck Carbon
C27FXR-L	Top Deck Long
C107FXR	Front Top Deck Carbon
C128A	Rear Lower Deck Alloy
C204R+1	Suspension Arm + 1 mm
C204L+1	Suspension Arm + 1 mm
C204R-1	Suspension Arm - 1 mm
C204L-1	Suspension Arm - 1 mm
C27FXR-G	Rear Top Deck
C26	Top Stiffener
C27FX-L	Top Deck Long
C107	Front Top Deck FX
C07-R	Carbon Bumper
C07-RF	Flex Carbon Bumper
ST03-Ti	Ball Stud Titanium
ST205	Damper Rod
ST24L	4,8x10 mm Ball Stud
ST24S	4.8x5 mm Ball Stud
ST24-Ti	4,8x6 mm Ball Stud Titanium
ST24M-Ti	4,8x8 mm Ball Stud Titanium
ST24S-Ti	4,8x5 mm Ball Stud Titanium
ST69-15	Progressive Spring Screw
ST69-25-R	Progressive Spring Screw
ST123	M2.5x7 mm Screw
ST147	PS Retainer
ST237	Damper Spacer
ST265	Bumper Weight FX 115 g
AT06	Alloy Antenna Holder
AT13W	Wheel Hex Wide
AT15	Bearing Spacer
AT21R	Pivot Ball
AT143	ARB Stiffener
AT144	ULCG Battery Clamp
AM288	Top Deck Stiffener
DT10+1.0	Bearing Housing
P40F	Servo Arm (Futaba)
P40K	Servo Arm (KO)
P74	Progressive Spring Holder set
P138LFA	38T Pulley Low Friction
SB3X5AL	M3x5 Alloy Button Head Screw
SH0.1	6x8x0.1 mm Shim
SH0.25	3x6x0.25 mm Shim
SH5.9X0.4	5.9x0.4 mm Spacer
SPR14-R	Center Spring
SPR-P1	Progressive Spring
SPR-P2	Progressive Spring
T01	5.5/4 mm Wrench
T02	Wrench
TW5	Tungsten Weight 5 g.
ABH	Adjustable Battery Holder set
PSSX	Progressive Spring System
SCC-FXR	Steel Chassis Conversion set
OR1306V	Damper Case O-Ring
AT119X	Spring Screw Holder
ST69X-00	Linear Spring Screw



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