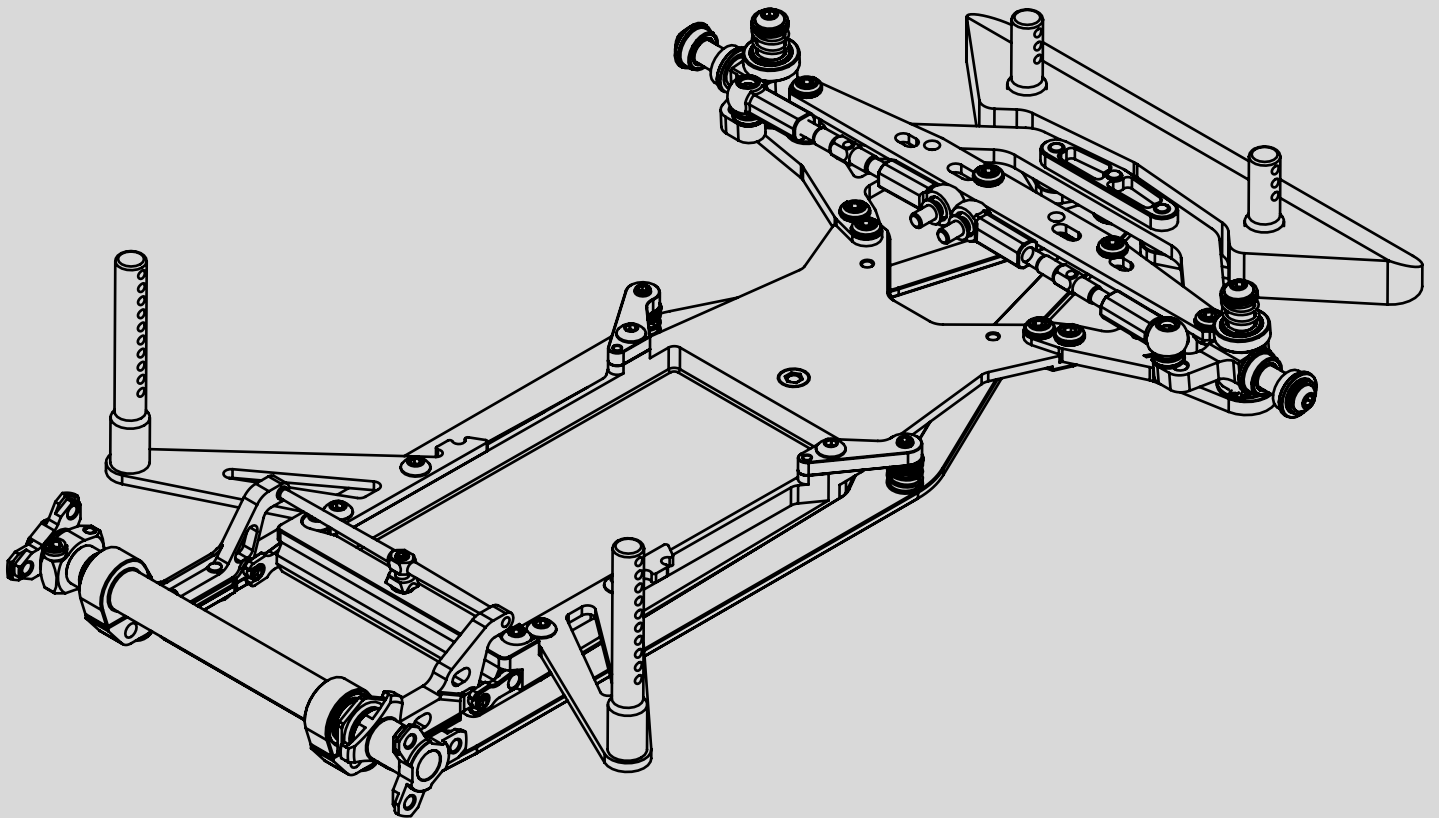


A12X

1/12-SCALE ELECTRIC ON-ROAD CAR



INSTRUCTION MANUAL

INTRODUCTION

Congratulations on purchasing your Awesomatix car!
The A12X car was produced by UAB Awesomatix company.

BEFORE YOU START

The A12X car is a high-quality, innovative 1/12-scale on-road car and should only be built by those with previous experience of building R/C model racing cars.

This is not a toy and is not intended for use by children without the direct supervision of a responsible, knowledgeable adult. Please read the instruction manual carefully and fully understand it before beginning assembly. If you encounter any problems or have any questions, please do not hesitate to contact the Awesomatix team at support@awesomatix.com.

Ensure that you are happy with your kit purchase and are committed to use of it prior to beginning the assembly of your A12X. Your car cannot be returned to UAB Awesomatix for a refund or exchange once it has been fully or partially assembled.

This kit is a radio controlled model racing product and could cause personal injury or harm if not used as intended. The A12X car is designed for use on r/c car race tracks; it should not be used in areas primarily intended for use by the general public. UAB Awesomatix accept no responsibility for any injury caused by making or using this product.

Due to our policy of continuous product development, the exact specifications of the kit may vary. UAB Awesomatix reserve all rights to modify or change product specifications without prior notice. All rights reserved.

ASSEMBLY NOTES

You can find useful tips for assembly of the A12X and an editable setup sheet on the Internet website:
<http://site.petitrc.com/reglages/awesomatix/setupa12/>

GENERAL PRECAUTIONS

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

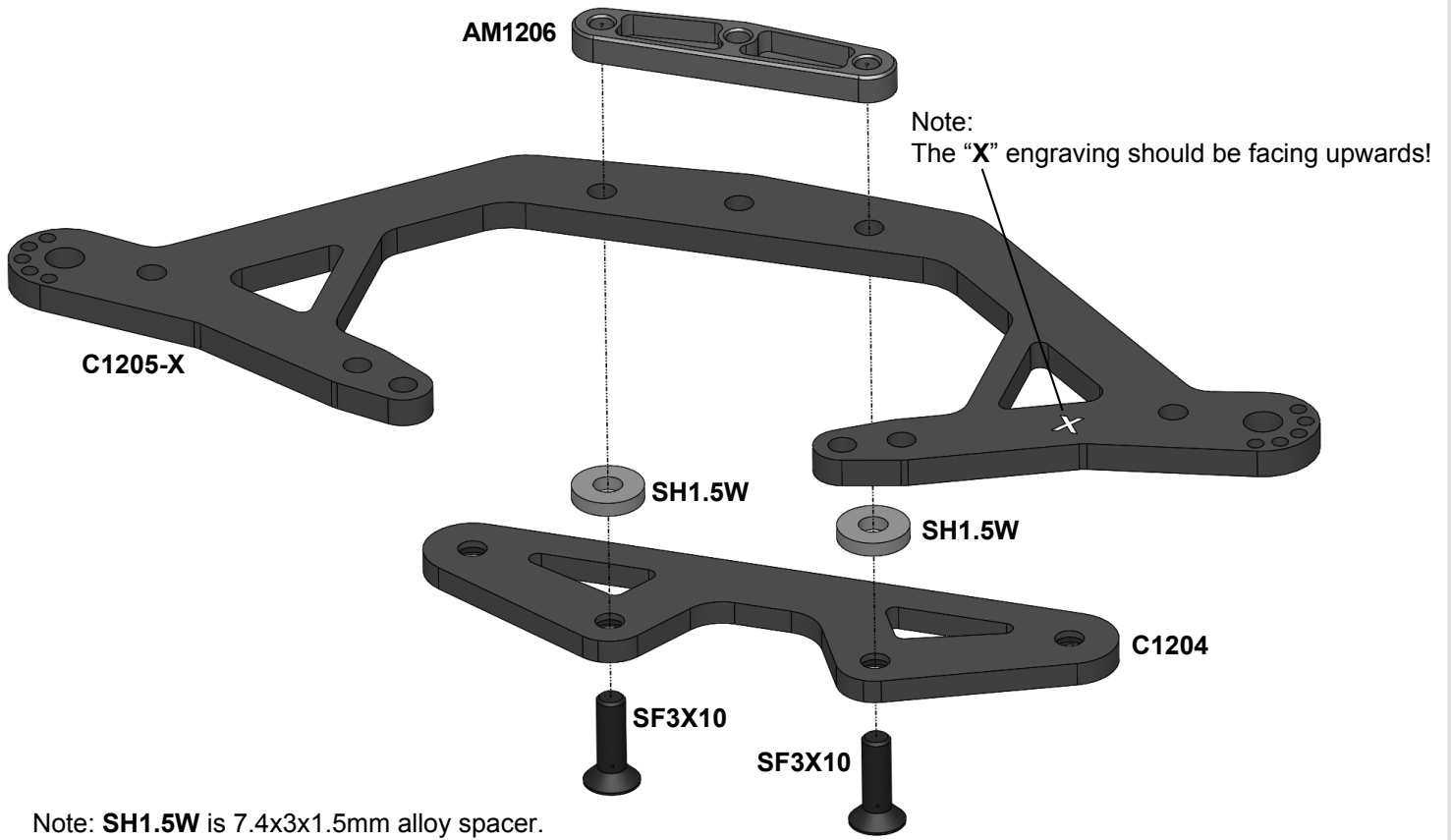
EQUIPMENT RECOMMENDED (NOT INCLUDED)

- Radio Transmitter
- Radio Receiver
- Electronic Speed Control
- Steering Servo
- Servo Saver
- Electric Motor
- Pinion Gear (64 or 48 Pitch)
- Spur Gear (64 or 48 Pitch)
- 1S Li-Po Battery
- 1/12 scale Body Shell
- 1/12 scale Wheels and Tires

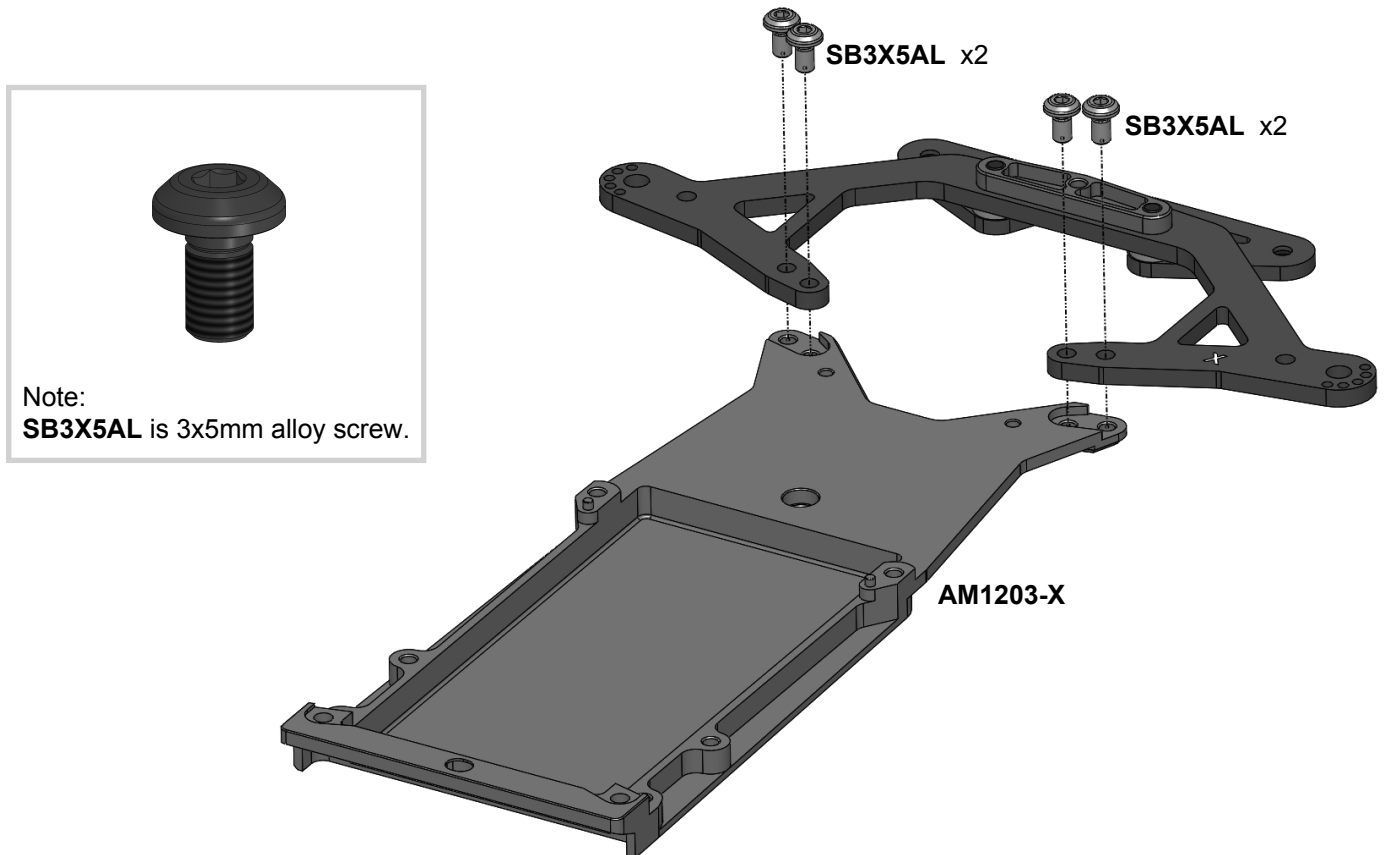
TOOLS RECOMMENDED (NOT INCLUDED)

- 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm Hex Drivers
- 12mm Wrench
- Sewing Needle or Sharp Pin
- Hobby Knife
- Ride Height Gauge
- Thin CA Glue
- Thread Lock
- Double Side Tape
- Silicone Grease
- Joint Grease

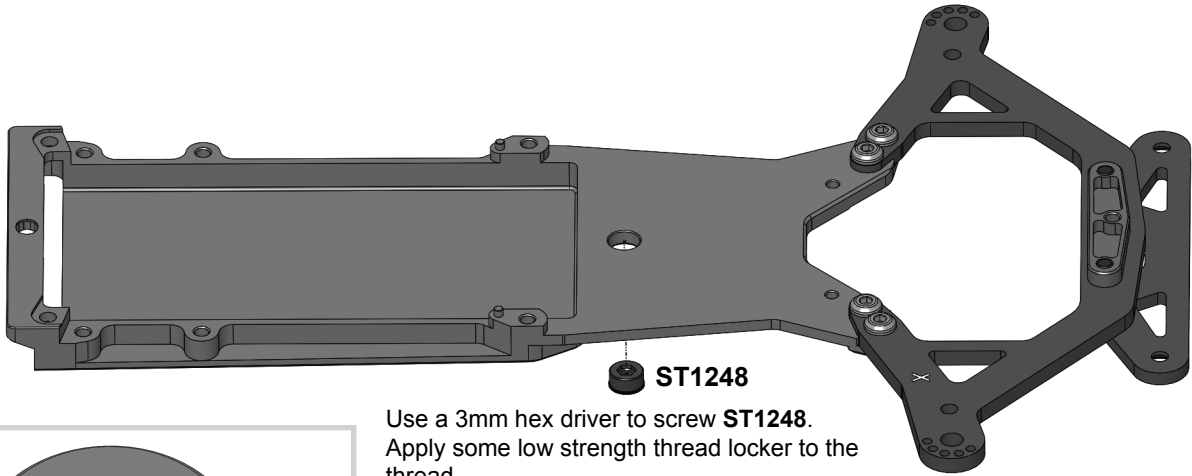
STEP 1



STEP 2

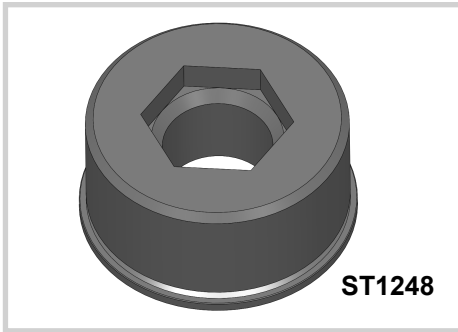


STEP 3

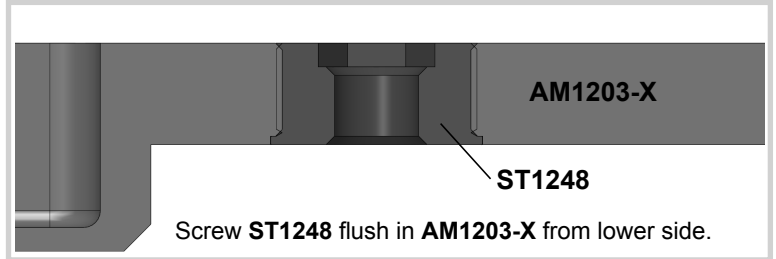


ST1248

Use a 3mm hex driver to screw **ST1248**.
Apply some low strength thread locker to the thread.



ST1248



AM1203-X

ST1248

Screw **ST1248** flush in **AM1203-X** from lower side.

STEP 4

ST1255
SH5.5X7.7X0.05

ST1256

AM1204X-ST

ST1254

ST1255
SH5.5X7.7X0.05
ST1257

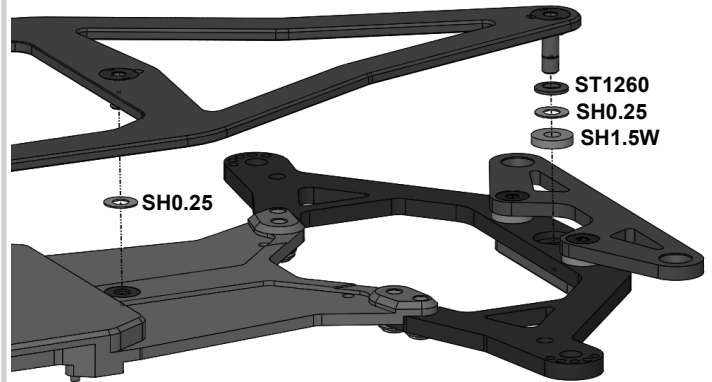
ST1254

Try to install the joints without **SH5.5X7.7X0.05** shims first. Add these shims only if **ST1256** and **ST1257** do not pivot freely. Initial polishing of **ST1256** and **ST1257** balls is recommended. Use **T03** tool when screwing **ST1255**.

Add some joint lube between **ST1254** and **ST1256/ST1257**. Apply some low strength thread locker to the thread.

TIP / Recommendation to use:
MAX-01-002 - MXLR Driveshaft & Gears Oil

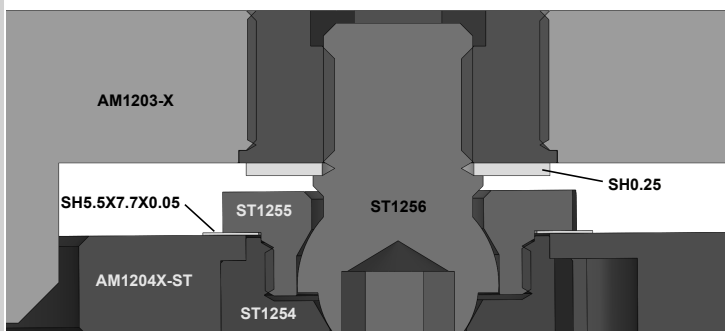
Note: The kit's rollcenter set is **LRC** (Low Roll Center) set. Optional rollcenter sets are available (not kit included):
ELRC - Extra Low Roll Center set (-1mm lower rollcenter)
HRC - High Roll Center set (+1mm higher rollcenter)
EHRC - Extra High Roll Center set (+2,8mm higher rollcenter)



Use a 2mm hex driver to screw **ST1256** and **ST1257**. Apply some low strength thread locker to the thread.

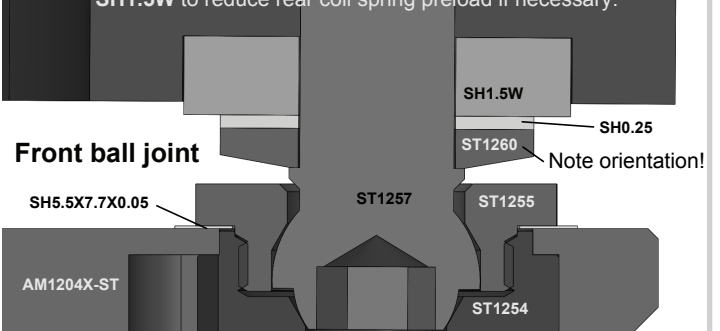
After assembly make sure that **AM1203-X** pivots freely relative to **AM1204X-ST**.

Rear ball joint Note: Two **SH0.25** shims can be installed under **ST1256** to reduce rear coil spring preload if necessary.



SH5.5X7.7X0.05 shim is used only if **ST1256** do not pivot freely.

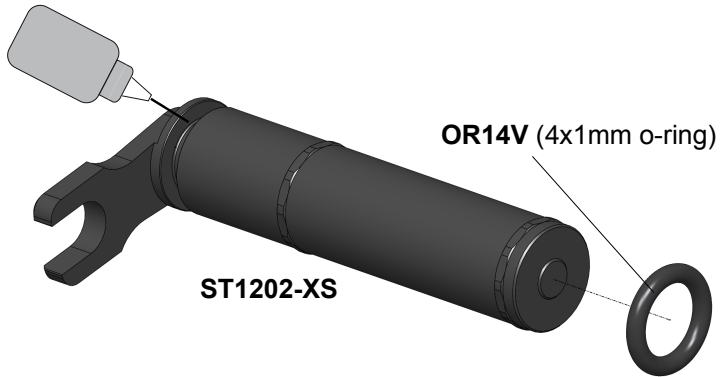
Note: 0,25 shim can be eliminated between **ST1260** and **SH1.5W** to reduce rear coil spring preload if necessary.



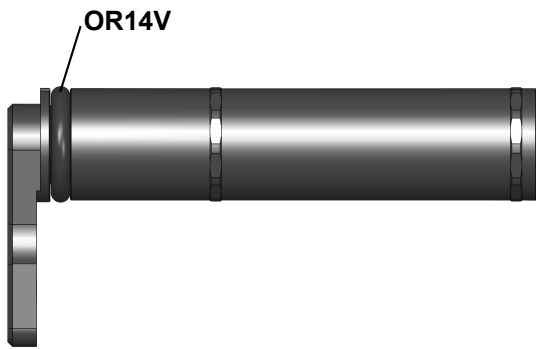
SH5.5X7.7X0.05 shim is used only if **ST1257** do not pivot freely.

STEP 5

Add a small amount of silicone oil into the groove of **ST1202-XS**.



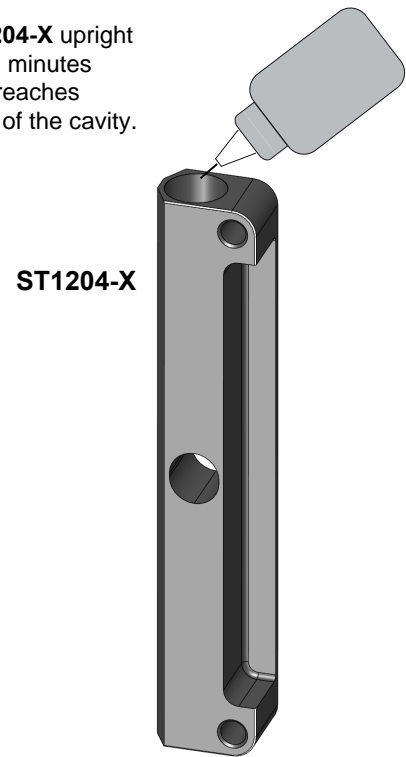
Lubricate **OR14V** using silicone oil. Stretch **OR14V** using fingers and place it into the groove on **ST1202-XS**.



STEP 6

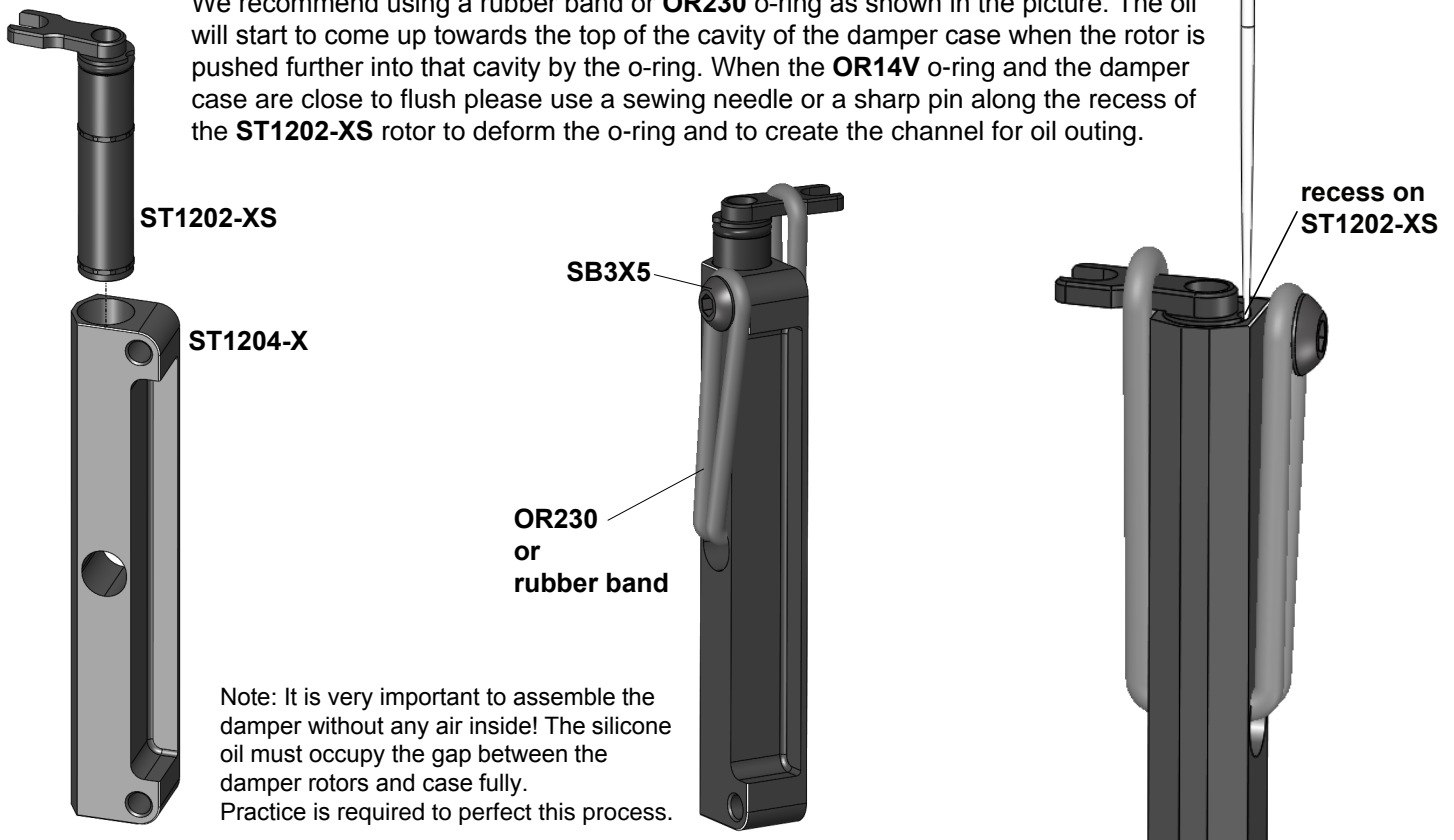
Add ~0,3 g of 50 000...100 000 cst silicone oil into the cavity of **ST1204-X** damper case.
We recommend 100 000 cst silicone oil as the base setup.

Keep **ST1204-X** upright for several minutes until all oil reaches the bottom of the cavity.



STEP 7

Insert **ST1202-XS** damper rotor into **ST1204-X** damper case slowly. After the lower face of the **ST1202-XS** reaches the oil in the bottom of the cavity an additional force will be needed to push the rotor fully into the deepest position. We recommend using a rubber band or **OR230** o-ring as shown in the picture. The oil will start to come up towards the top of the cavity of the damper case when the rotor is pushed further into that cavity by the o-ring. When the **OR14V** o-ring and the damper case are close to flush please use a sewing needle or a sharp pin along the recess of the **ST1202-XS** rotor to deform the o-ring and to create the channel for oil outing.

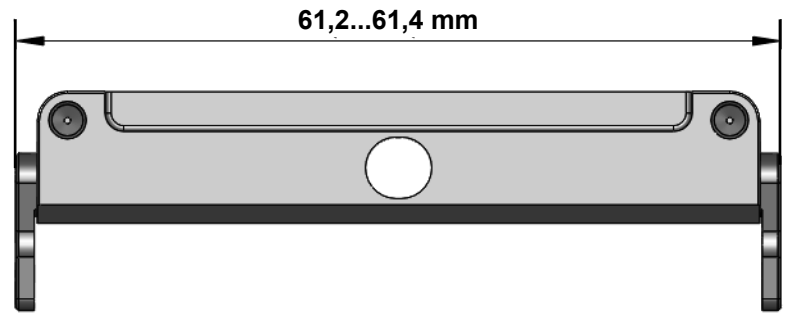
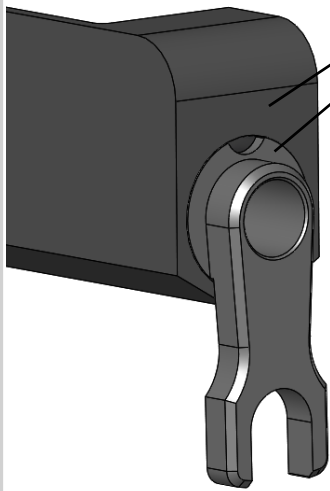


Note: It is very important to assemble the damper without any air inside! The silicone oil must occupy the gap between the damper rotors and case fully. Practice is required to perfect this process.

STEP 8

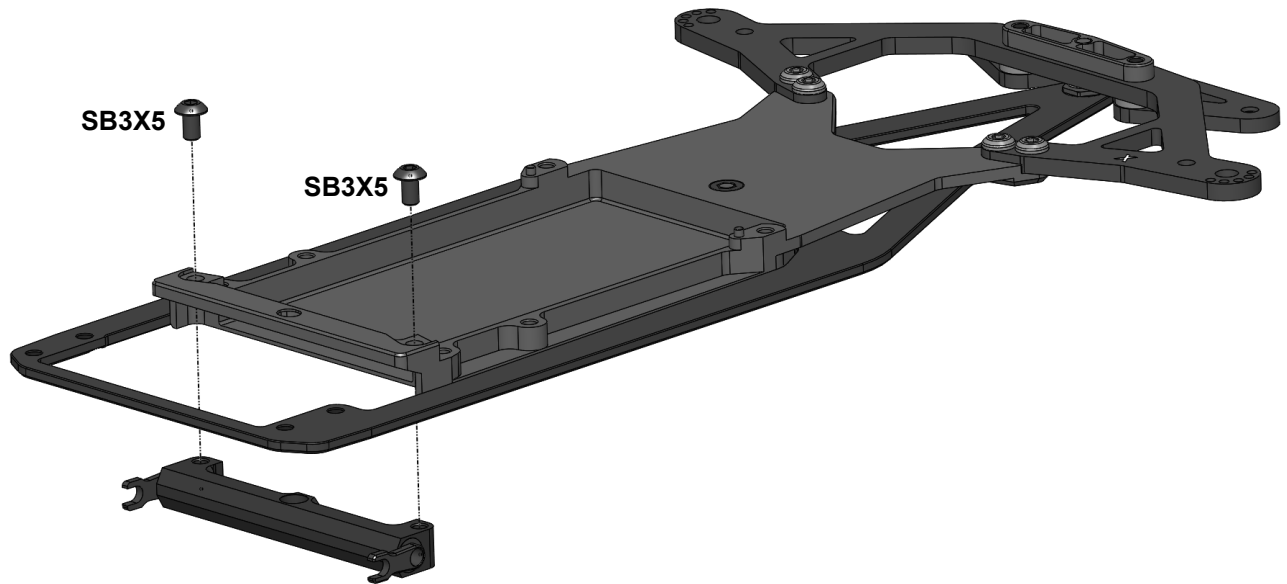
Repeat STEPS 5,6 &7 for other side of **ST1204-X** and check that both **ST1202-XS** rotors are correctly installed (flush with the **ST1204-X** face)

Note: These faces of **ST1204-X** and **ST1202-XS** should be flush.

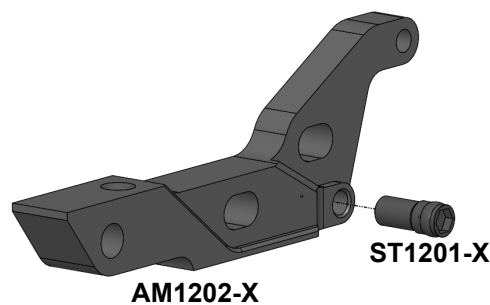
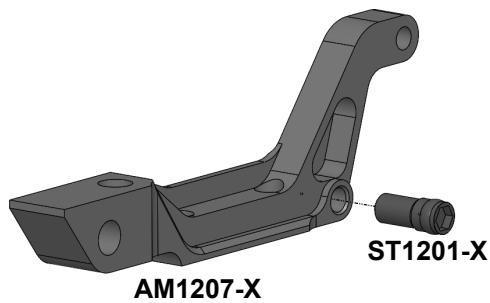


Note: Check this recommended size.

STEP 9



STEP 10



STEP 11

Note **ST1203-X** orientation!

ST1203-X
DT1210
ST1236

Tip: Use some low strength thread locker (blue) for **DT1210** plastic nut to ensure a bit more tight fit in the thread. Don't use thread locker between **ST1203-X** and **ST1236**!

Use the included 1,5 mm hex key to stop **ST1236** from turning when tightening **ST1238**.

The rear springs in the kit:
SPR12XR-C0.8 - Silver
SPR12XR-C1.0 - Black
SPR12XR-C1.2 - Copper

SPR12XR-C1.0
ST1238

Add some lube to the spring and **ST1238** for smoother operation.

Note **DT1210** nut orientation and alignment!

DT1210
ST1203-X
ST1236

ST1203-X
DT1210
ST1236

Initial position of **DT1210** nut and **ST1236** rod relative to **ST1203-X** brace.

~0,5 mm
~1,5 mm

STEP 12

Note the shoulder

ST112

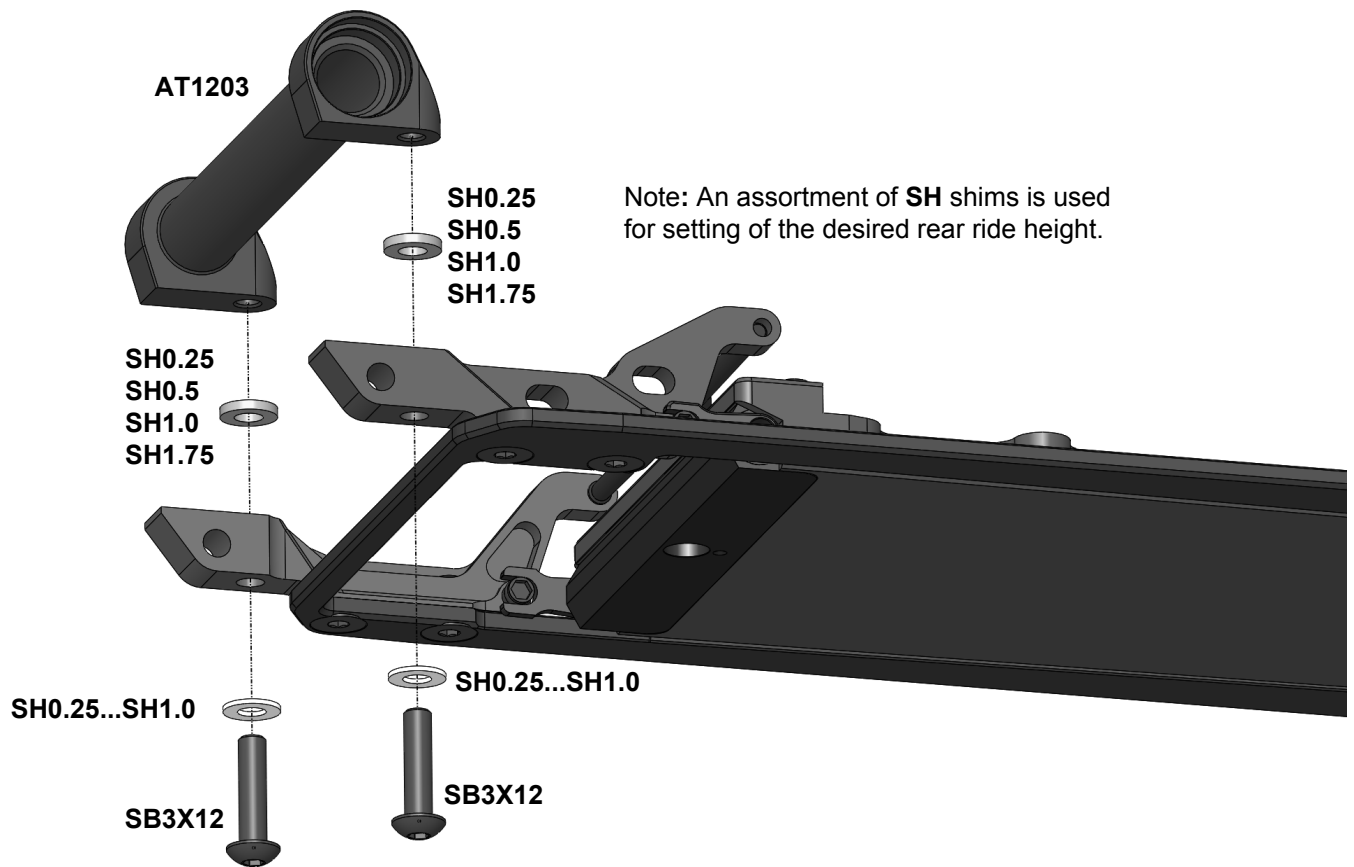
ST112 x2
ST112 x2

Note: **ST1201** ball studs should be placed into slots of **ST1202-XA** rotors.
The tips of **ST1203-X** brace should be placed into holes of **AM1202-X** and **AM1207-X**.

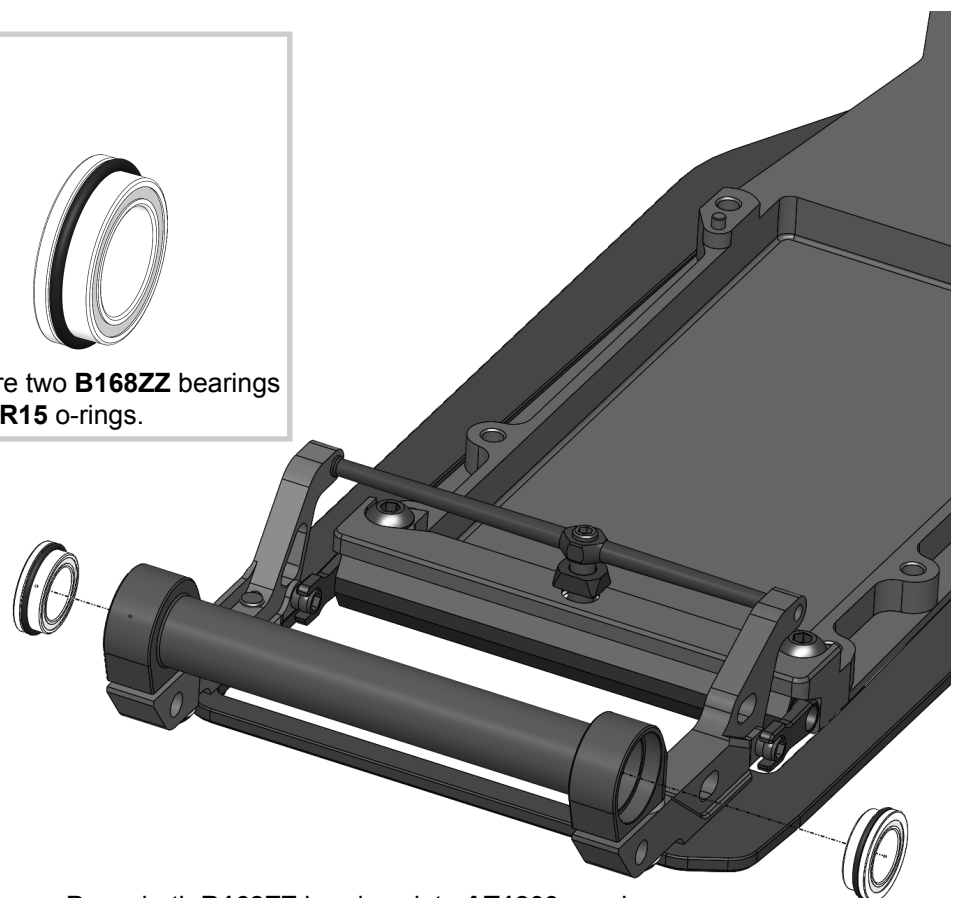
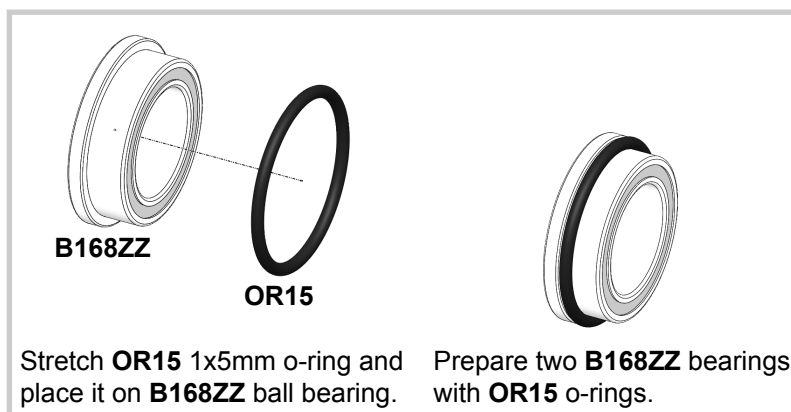
ST1238 holds the spring inside the damper case. To replace the spring unscrew **ST1238**.

ST1238

STEP 13



STEP 14

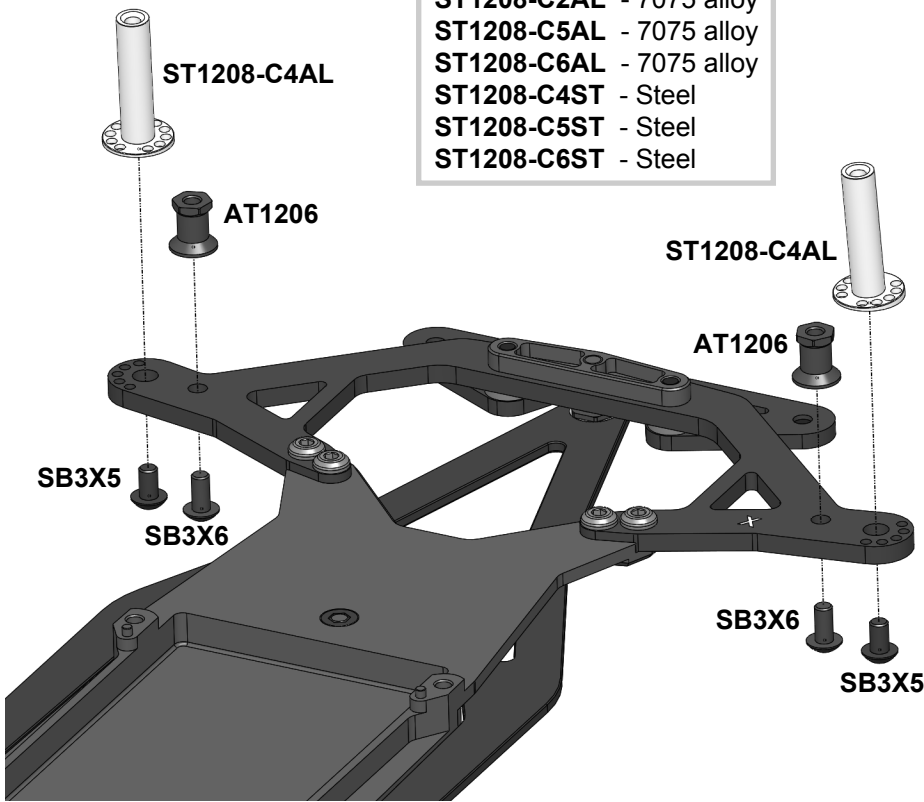


Press both **B168ZZ** bearings into **AT1203** rear beam.

STEP 15

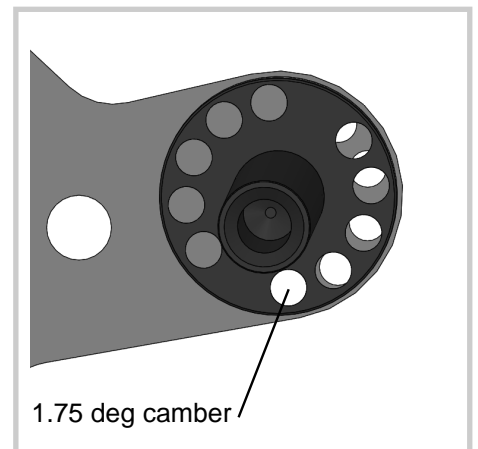
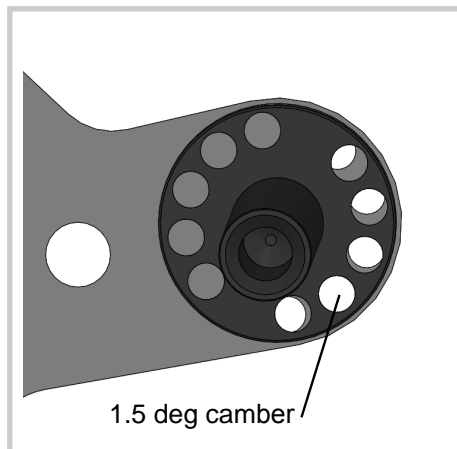
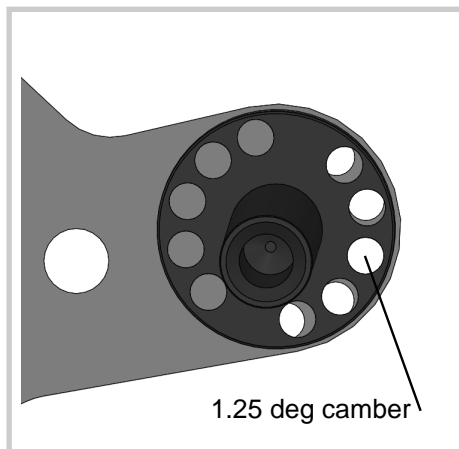
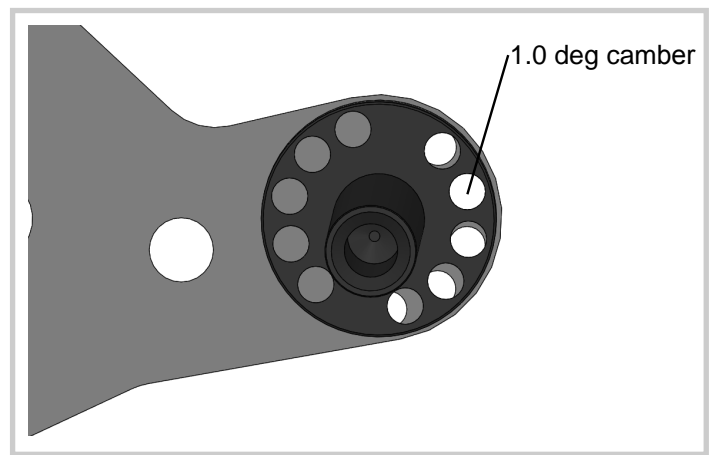
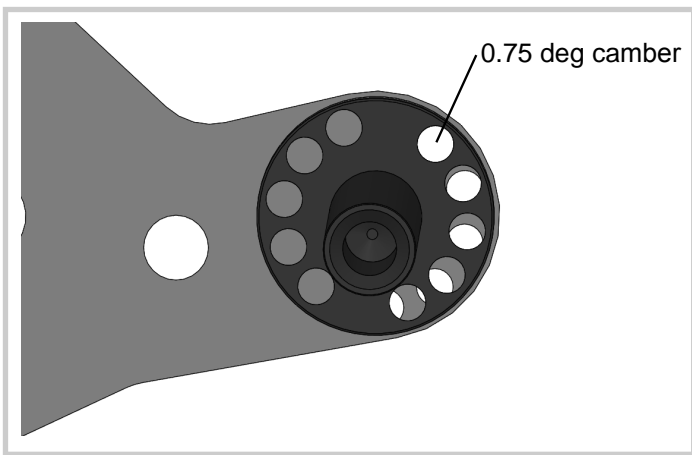
Note: **ST1208-C4AL** steering block posts provide 4 deg caster.

- Available optional posts:**
ST1208-C2AL - 7075 alloy
ST1208-C5AL - 7075 alloy
ST1208-C6AL - 7075 alloy
ST1208-C4ST - Steel
ST1208-C5ST - Steel
ST1208-C6ST - Steel

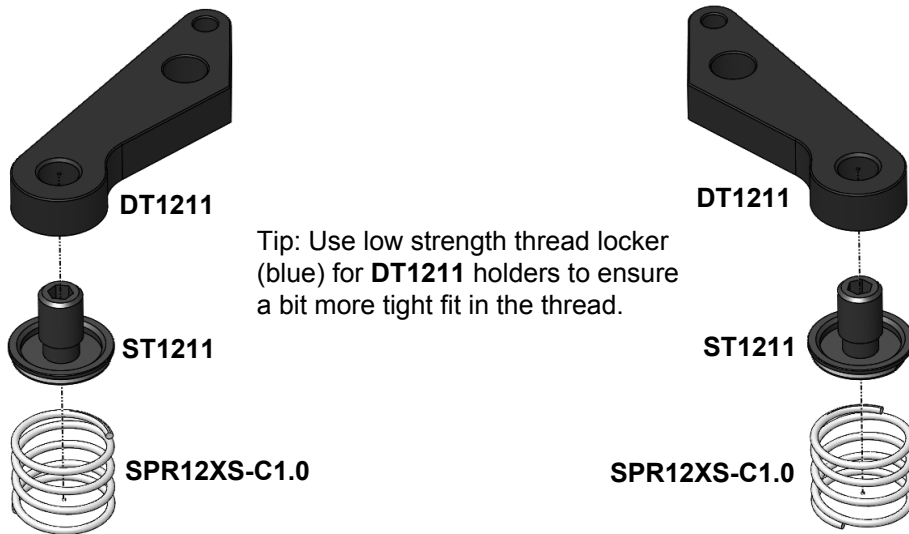


The tip of 1,5mm hex driver or optional **RHG 4.2** probe is used for alignment of the appropriate holes between **ST1208-C4AL** and **C1205-X**.

Alignment of the appropriate holes between **ST1208-C4AL** and **C1205-X** for camber settings.

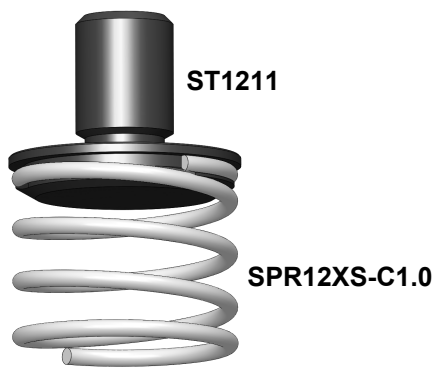


STEP 16



Tip: Use low strength thread locker (blue) for **DT1211** holders to ensure a bit more tight fit in the thread.

The side springs in the kit:
SPR12XS-C0.8 - Silver
SPR12XS-C1.0 - Black
SPR12XS-C1.2 - Copper

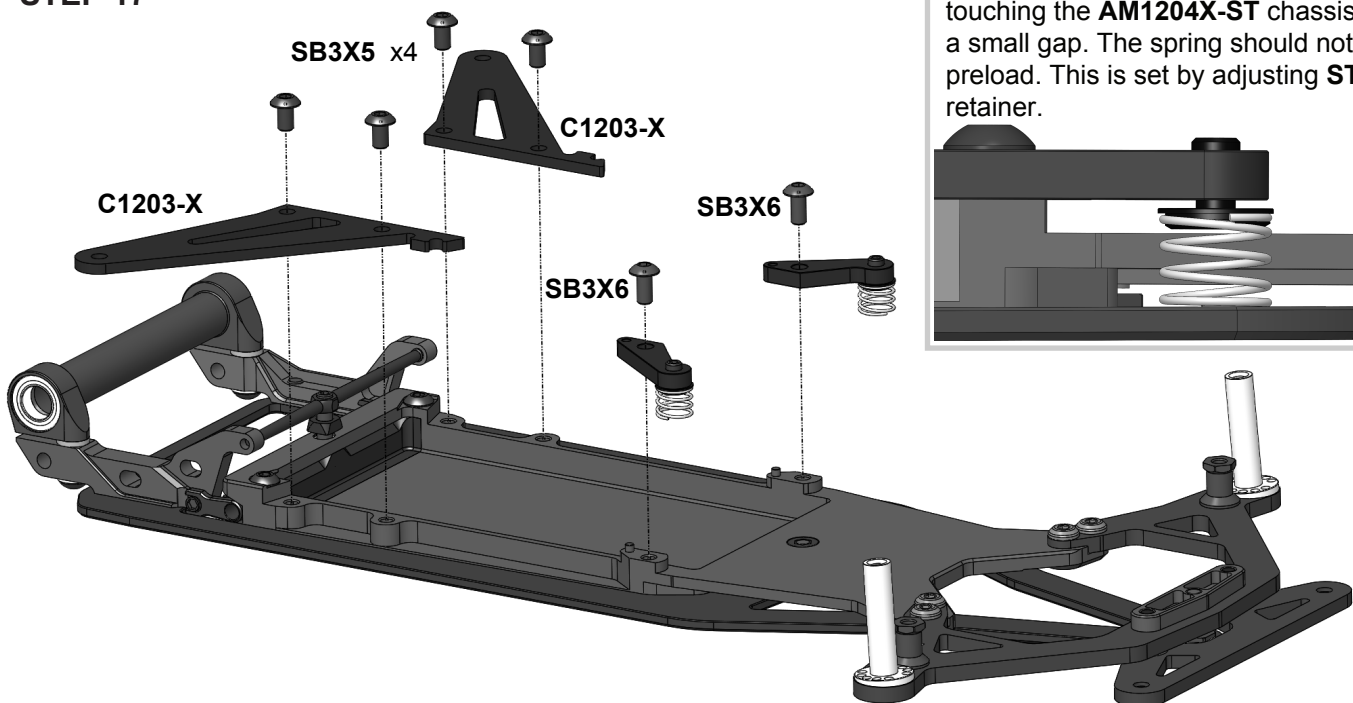


Snap the spring into the groove on **ST1211** retainer and rotate the spring to find the position that provides a perfect alignment of the spring and retainer.

Initial vertical position of the side spring - the **ST1211** spring retainer should be seated fully against **DT1211**.



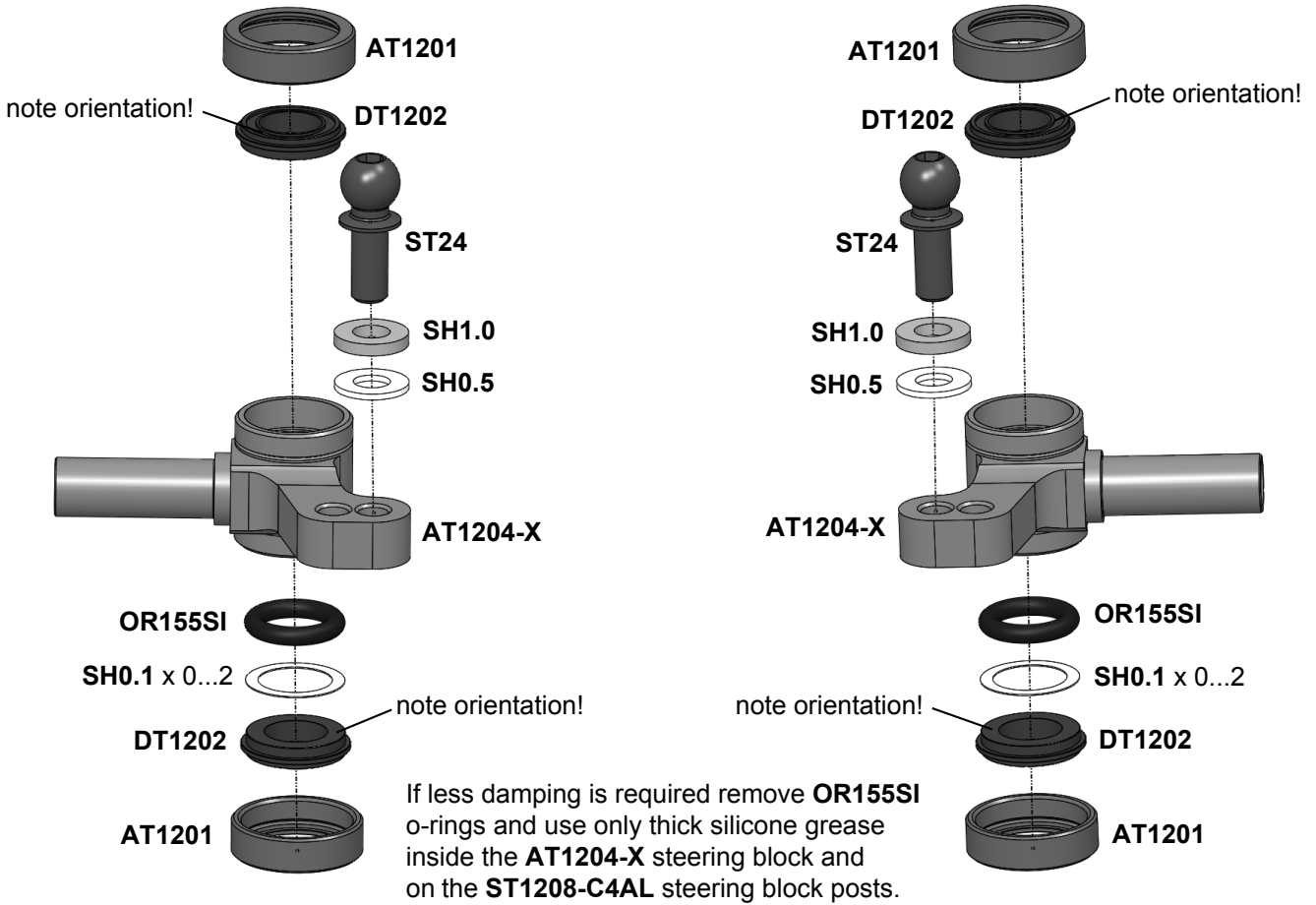
STEP 17



The side springs should be either just touching the **AM1204X-ST** chassis, or have a small gap. The spring should not have any preload. This is set by adjusting **ST1211** retainer.

Note: Optional long springs **SPR12S0.4**, **SPR12S0.5**, **SPR12S0.6** can be used with additional **SH0.5** or **SH1.0** spacers installed under the **DT1211** holders. The left and right long side springs - both must always contact the **AM1204X-ST** chassis during side roll. The effective anti-roll rate of these long side springs is 2 times the specified spring rate. For example, the effective anti-roll rate of **SPR12S0.4** long springs is actually equal to **0.8**.

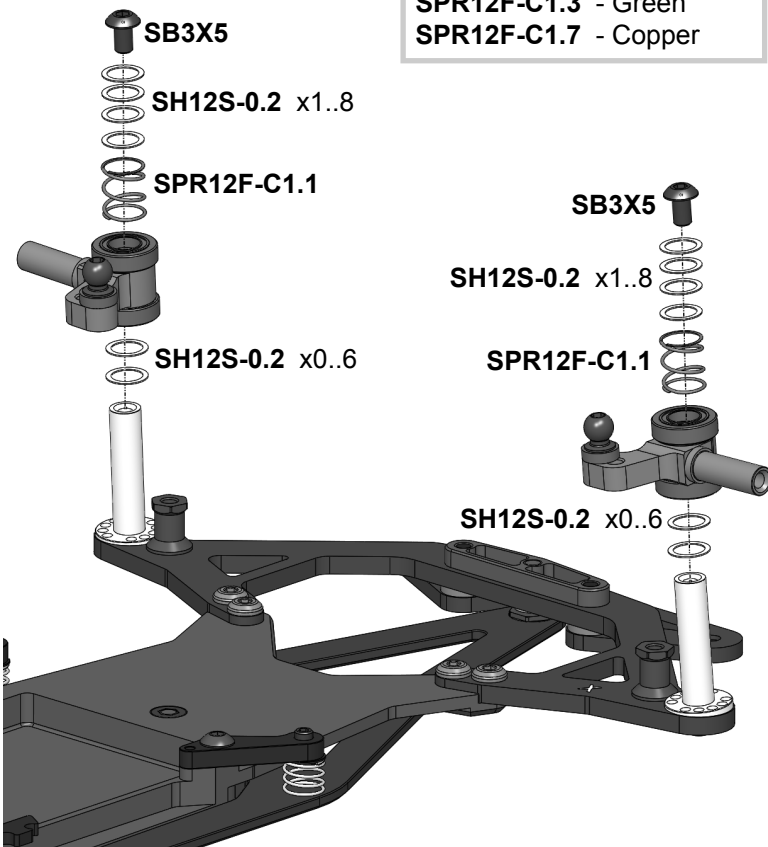
STEP 18



STEP 19

Available optional springs:

- SPR12F-C0.7 - Pink
- SPR12F-C0.9 - Black
- SPR12F-C1.3 - Green
- SPR12F-C1.7 - Copper



Attention! When installing **SH12S0.2** shims above the spring, make sure all shims surround **ST1208-C4AL** but are not in the gap between **ST1208-C4AL** top face and **SB3X5** screw head.

Top **SH12S-0.2** shims are used to set the front ride height.

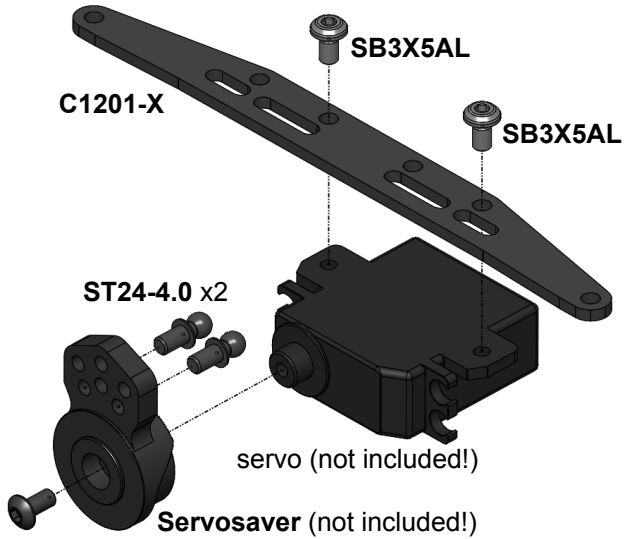
Put the desirable silicone grease into this cavity.

Bottom **SH12S0.2** shims are used to set the front droop.

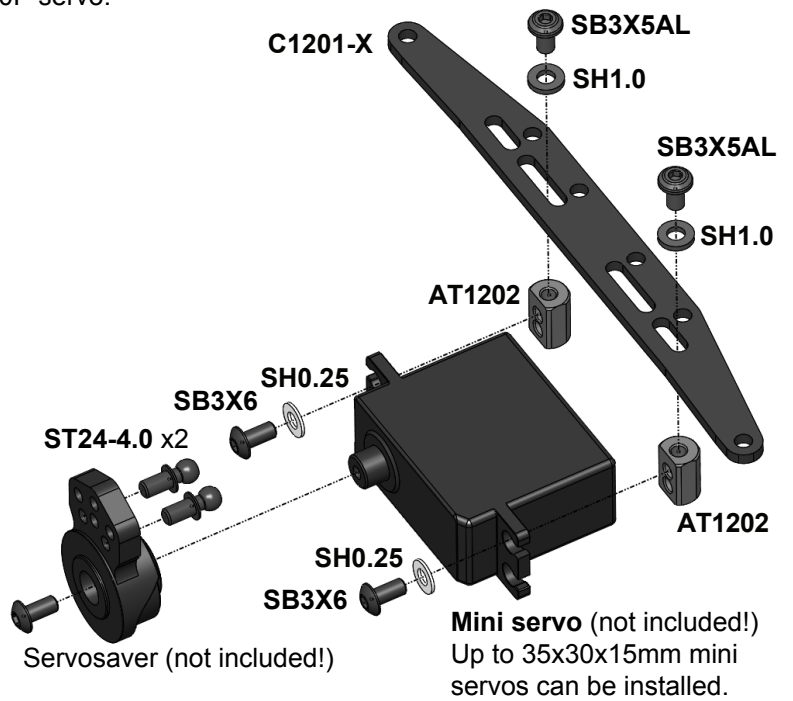
SH12S-0.2 0.2mm thickness shims are used to set the front ride height and the front droop.

STEP 20

Installation of the SANWA SRG and MKS HV50P servo.



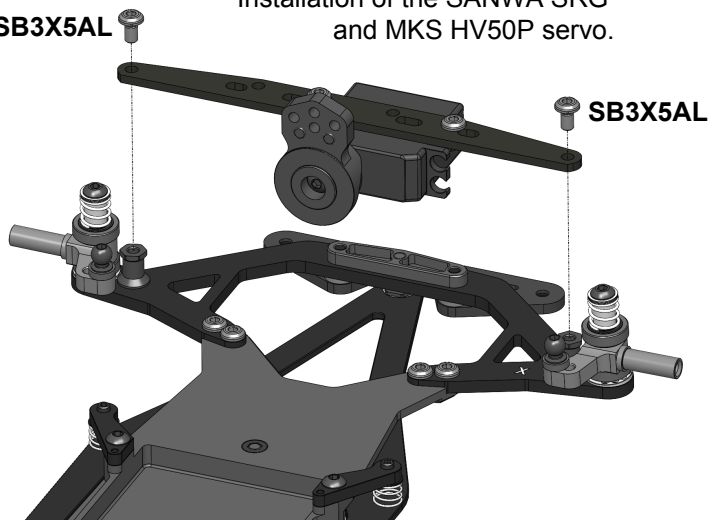
Installation of the standard mini servo.



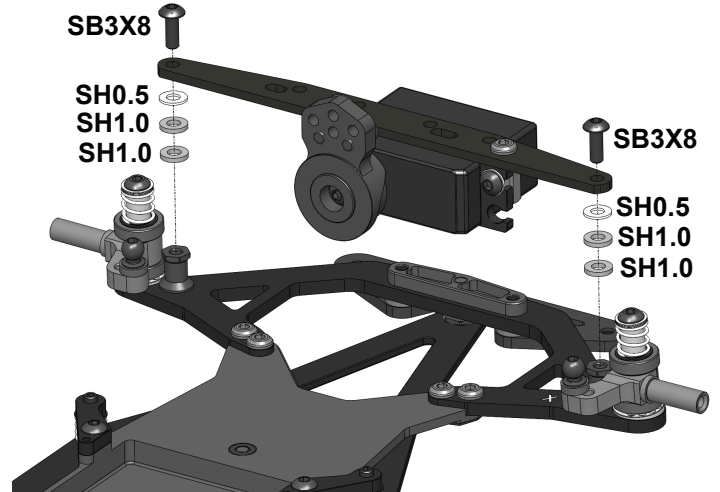
Note: **ST24-4.0** are 4.0mm ball studs. **ST24-4.0** fit **P1213** 4.0mm ball cups.

STEP 21

Installation of the SANWA SRG and MKS HV50P servo.



Installation of the 15mm thick mini servo.

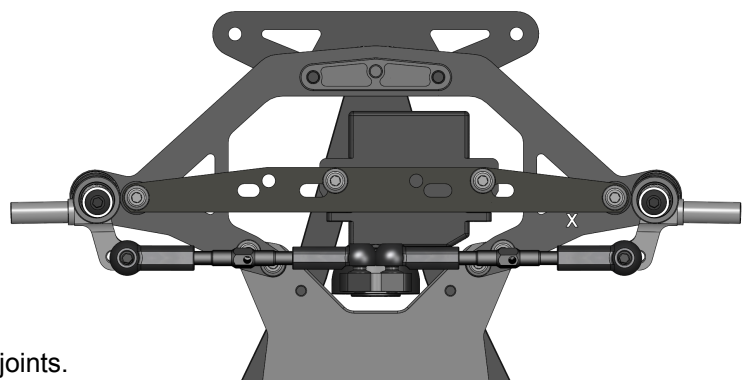


STEP 22

Install both steering links.

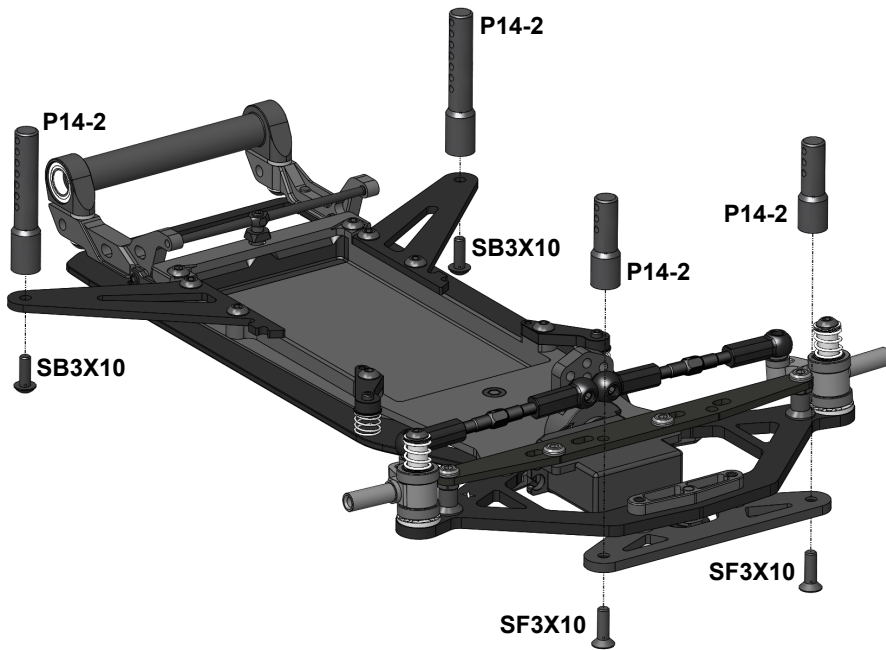
Left steering link

Right steering link

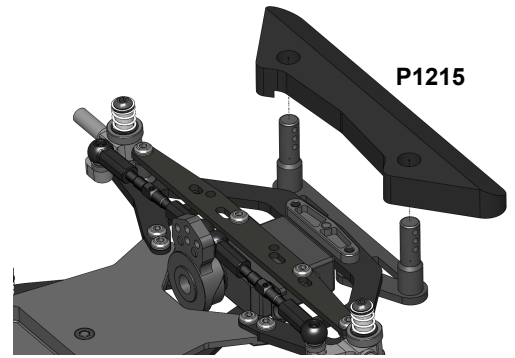


Note: **P1213** 4.0mm ball cups are used for the inner steering joints.

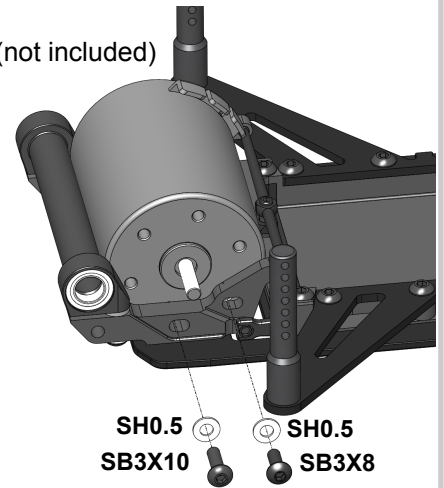
STEP 23



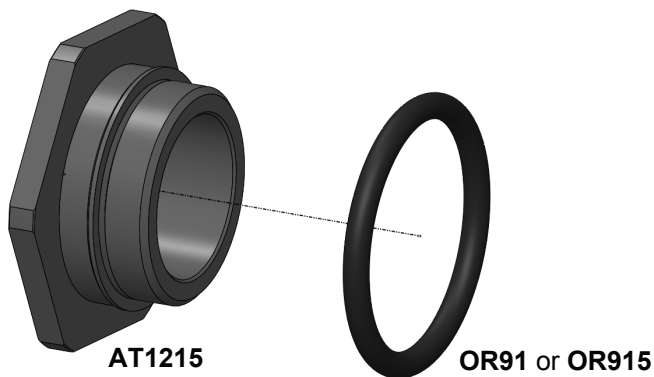
Note: Use thin double sided tape to secure the **P1215** foam bumper onto the **C1204** bumper plate.



Motor (not included)



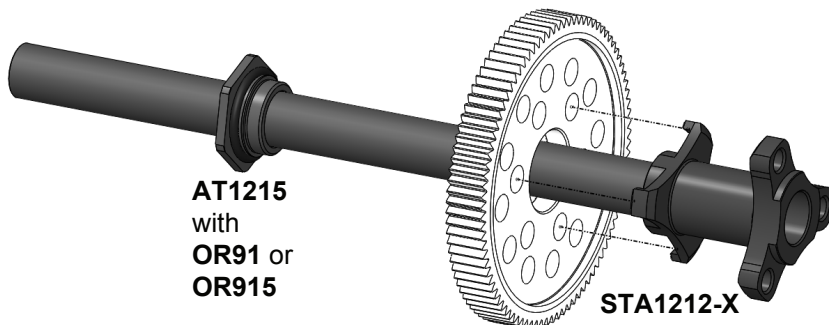
STEP 24



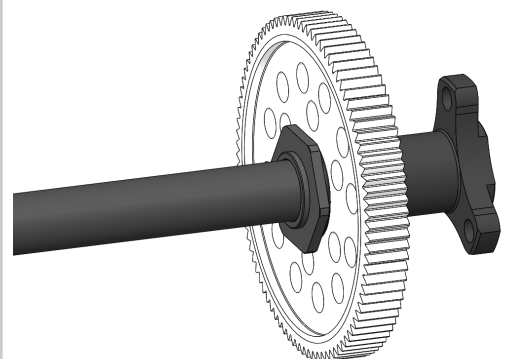
Note: Use **OR91** 9x1mm o-ring with the thick spur gears. Use **OR915** 9x1.5mm o-ring with the thinner spur gears (TC-style spur gears).



Spur gear (not included)

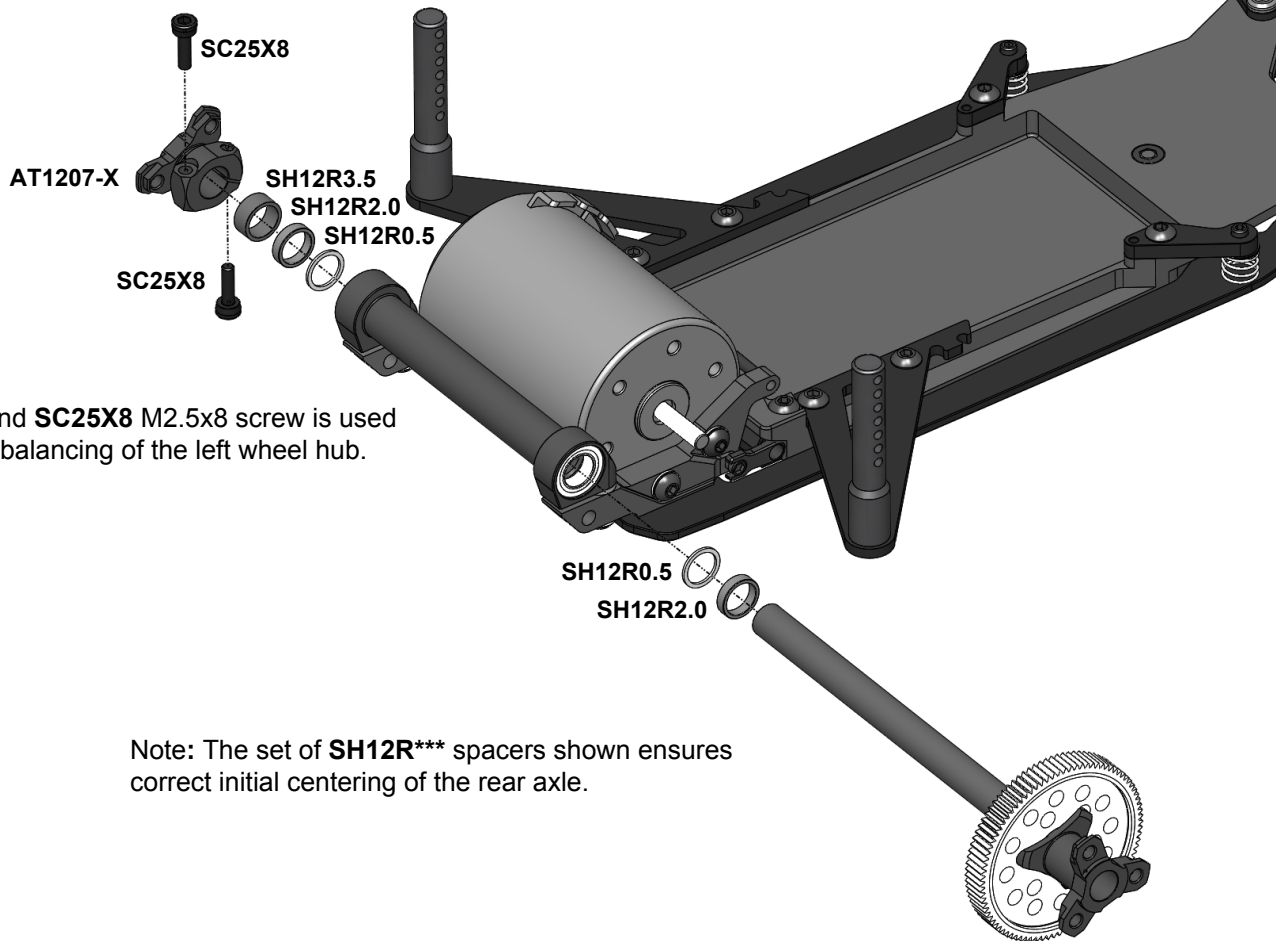


Note: Tighten **AT1215** nut using 12mm wrench. Please do not over-tighten the **AT1215** nut!



Note: The sum of the 64DP spur+pinion teeth should be within the range 112-120.

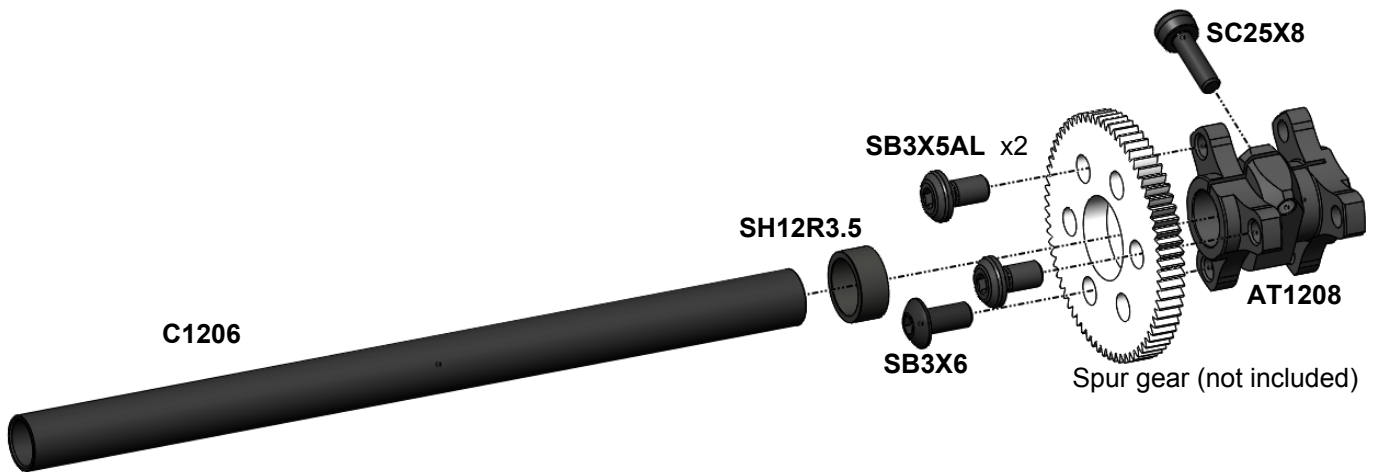
STEP 25



Note: The second **SC25X8** M2.5x8 screw is used for perfect axle balancing of the left wheel hub.

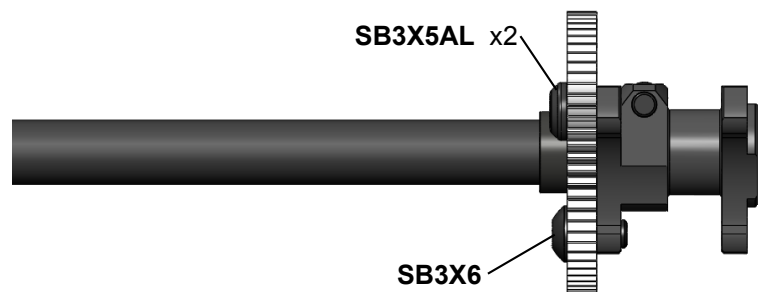
Note: The set of **SH12R***** spacers shown ensures correct initial centering of the rear axle.

Carbon Spool set **CS-1** (optional).

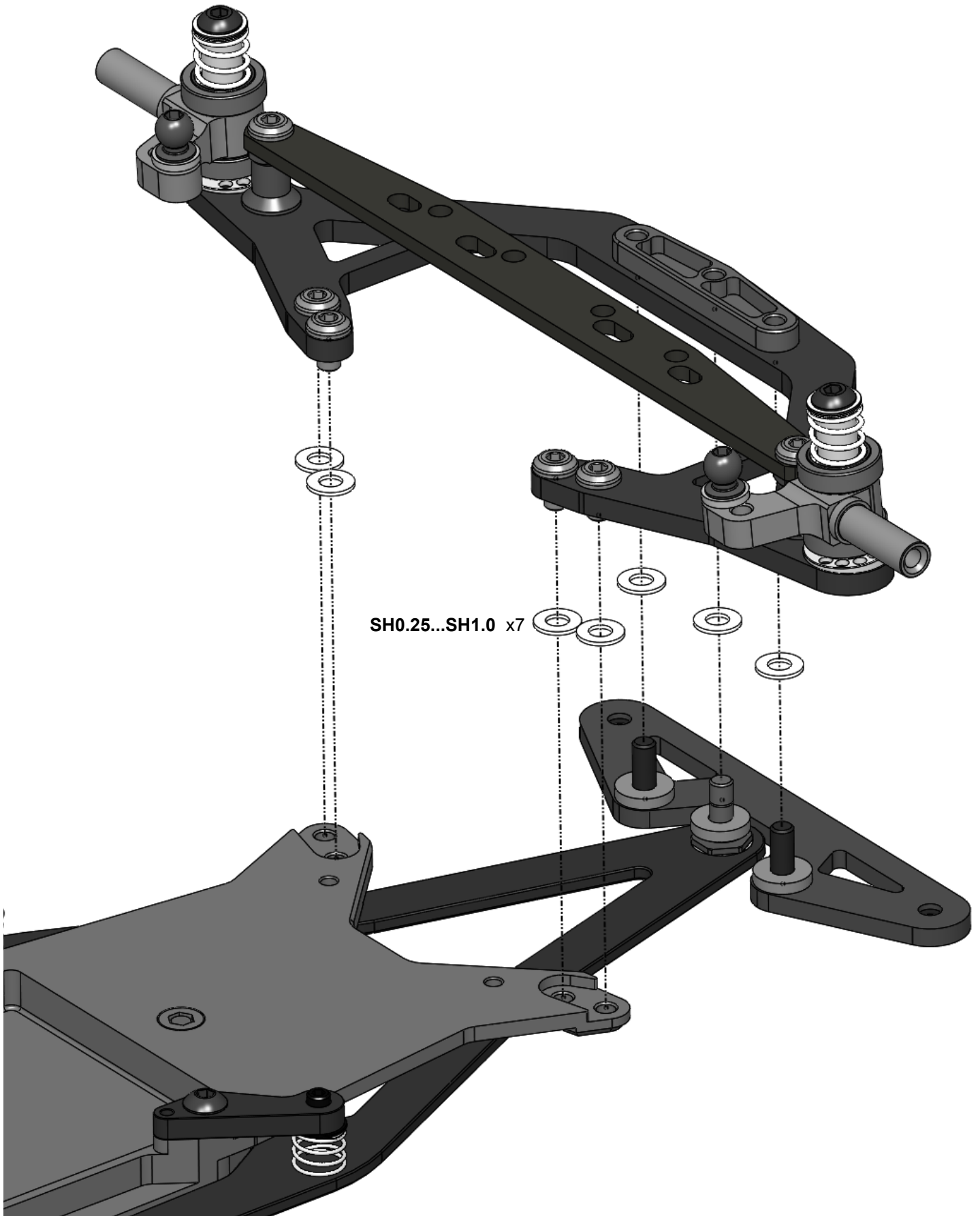


Note: Optional **ST1212** steel axle can be used instead of **C1206** carbon axle.

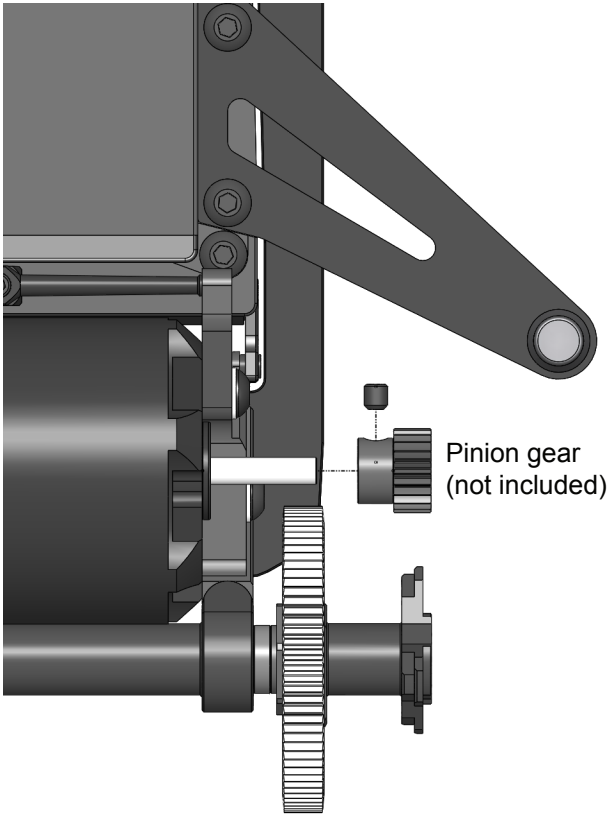
Note: Two **SB3X5AL** M3x5 alloy screw with one **SB3X6** M3x6 steel screw are used for perfect axial balancing of the right wheel hub.



Note: When using larger diameter tires, it may be necessary to use spacers under the **C1205-X** to obtain the desired ride height. Adjusting the number or thickness of shims under and above the steering block will not be sufficient to lower the ride height to a desirable setting.



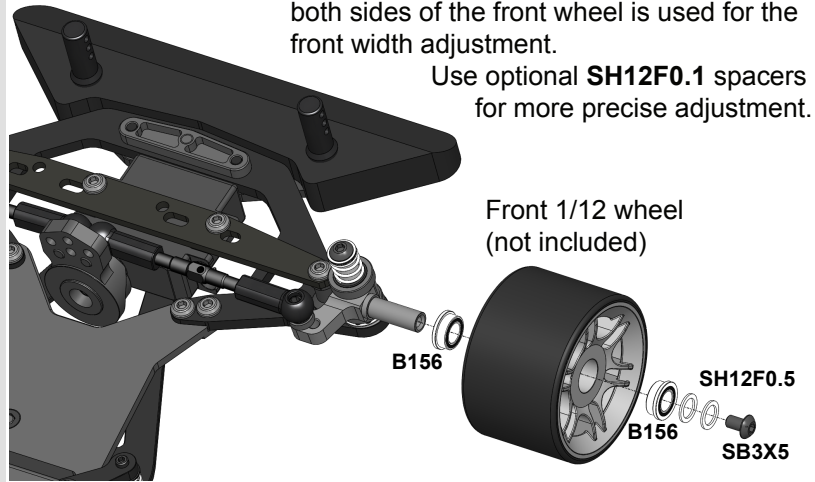
STEP 26



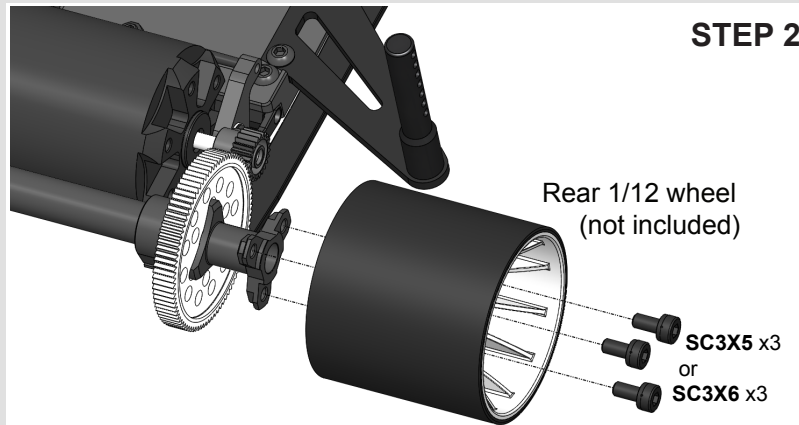
Note: The sum of the 64DP spur+pinion teeth should be within the range 112-120.

STEP 27

Note: Combination of **SH12F0.5** spacers on both sides of the front wheel is used for the front width adjustment.
Use optional **SH12F0.1** spacers for more precise adjustment.



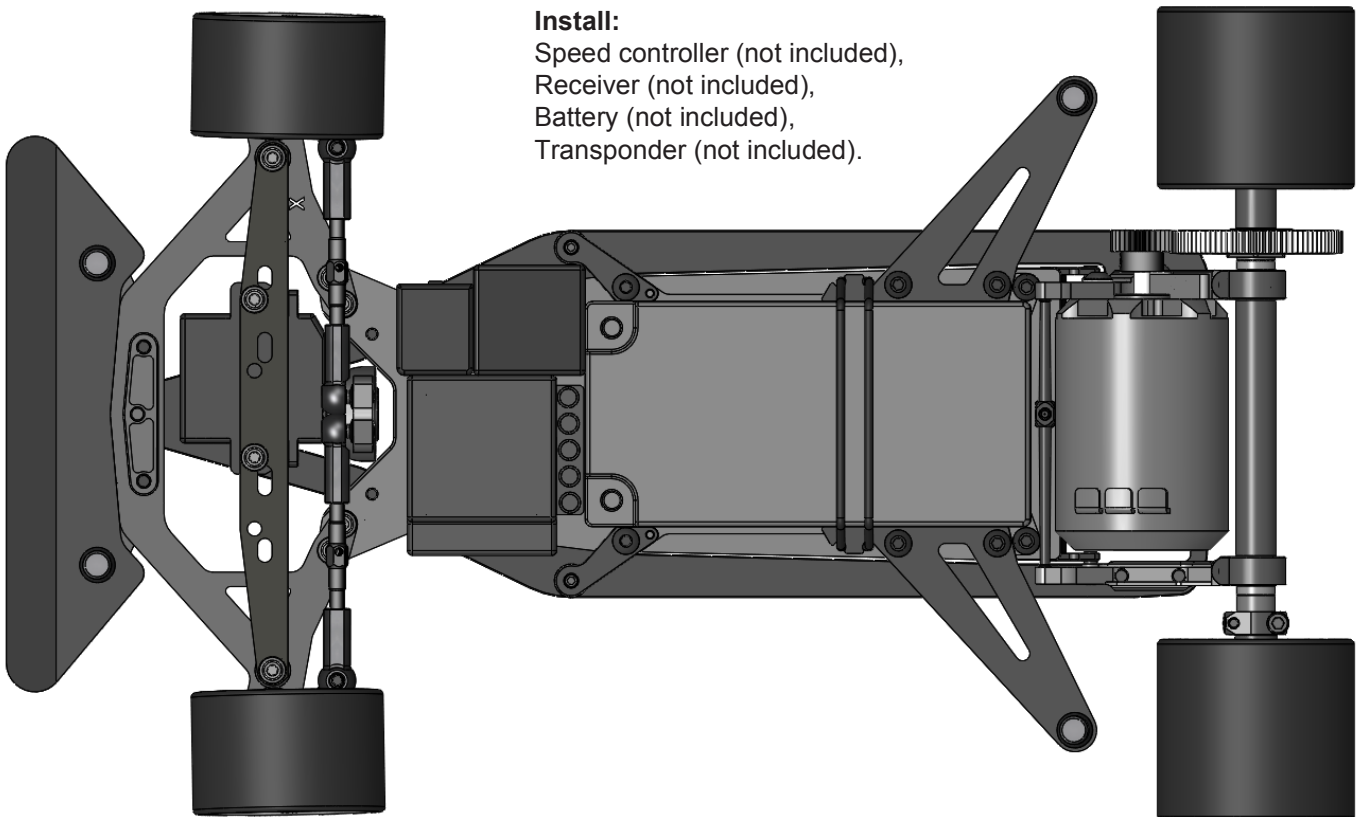
STEP 28



Note: Use **SC3X5** or **SC3X6** depending of the rear rims chosen. Some rims may need optional 3x8 mm screws (not included).

STEP 29

Install:
Speed controller (not included),
Receiver (not included),
Battery (not included),
Transponder (not included).

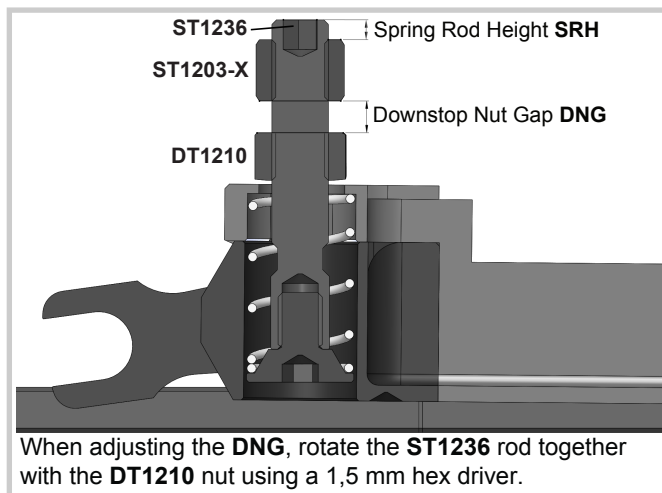
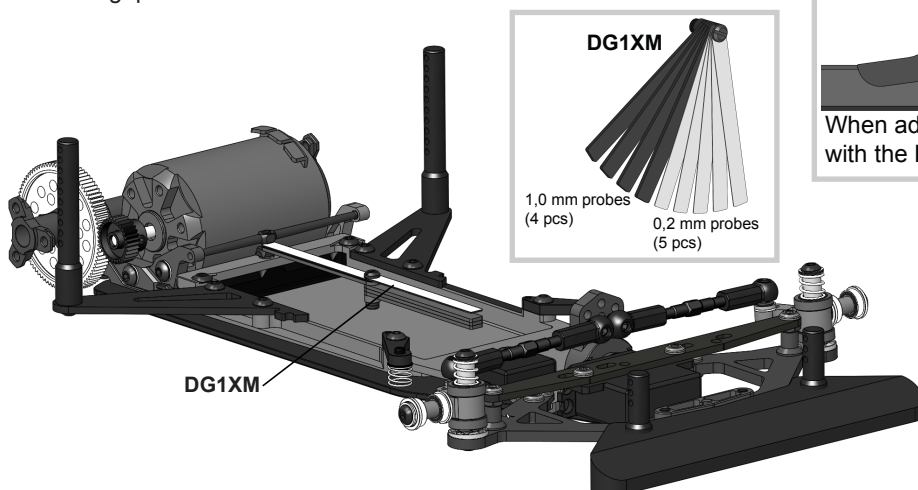


Setting of the Rear Downstop (RD).

Rear Downstop - the **RD** value in the A12X car indicates how far the motor pod can drop below the bottom surface of the rear damper. In the A12X car the **RD** directly depends on the gap between the nut **DT1210** and the rod **ST1203-X** - Downstop Nut Gap **DNG**. Therefore, to determine **RD**, it is necessary to measure the **DNG** value.

Equation for the Rear Downstop **RD**: $RD = 3 \text{ mm} - DNG$.

When measuring the Downstop Nut Gap **DNG**, insert the **DG1XM** gauge into the gap between the brace **ST1203-X** and the nut **DT1210**.



Setting of the Gap Under Damper (GUD).

Gap Under Damper - the **GUD** value indicates how far the bottom surface of the rear damper is above the chassis level.

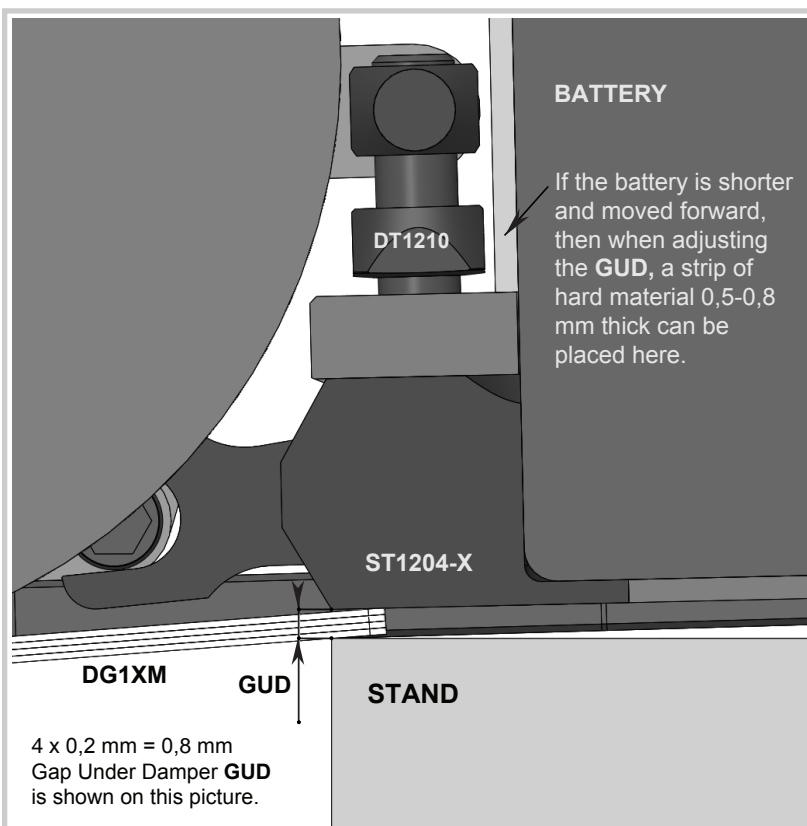
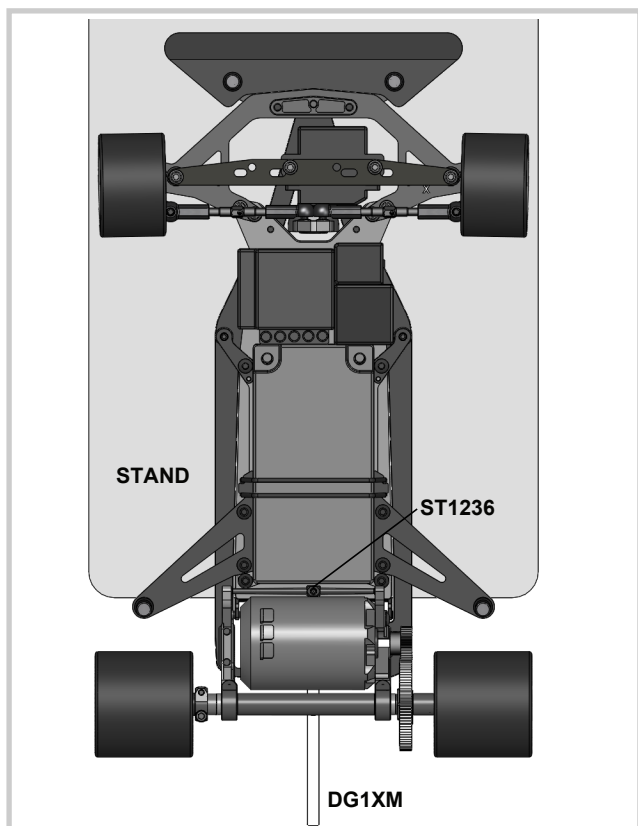
We strongly recommend installing the **GUD** after installing the rear downstop **RD**!!!

The **GUD** value can be measured using the **DG1XM** gauge when the fully equipped car is placed on the flat stand like on the picture. When measuring the **GUD**, insert the **DG1XM** gauge in the gap between the **ST1204-X** body and the stand.

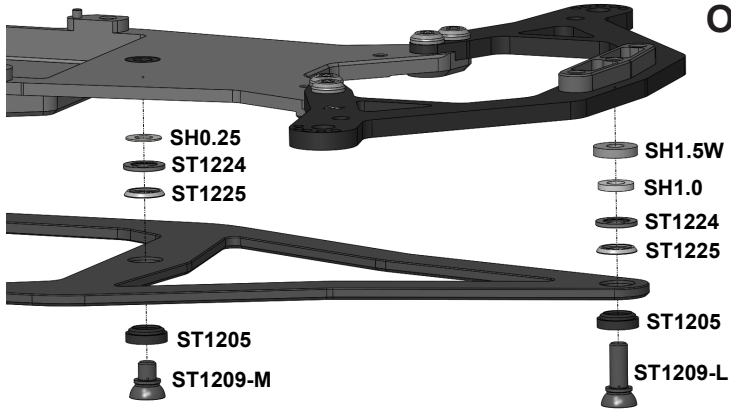
The **GUD** is set via preload of the rear spring **SPRXR**. Rotate the rod **ST1236** using 1,5 mm hex driver; turn clockwise to reduce the rear spring preload and to decrease the **GUD**; turn counterclockwise to increase the rear spring preload and to increase **GUD**.

The battery prevents the **DT1210** nut from rotating in most cases and the previously set rear downstop setting is not changed.

Note: If the battery case is slightly shorter, always secure the battery in the rearmost position or place a strip of hard material (plastic, metal) 0,5-0,8 mm thick between the battery and the **DT1210** nut to prevent the **DT1210** nut from turning when adjusting the **GUD**.

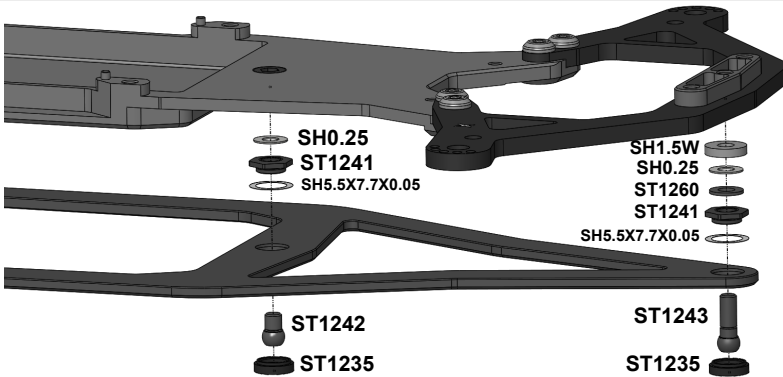
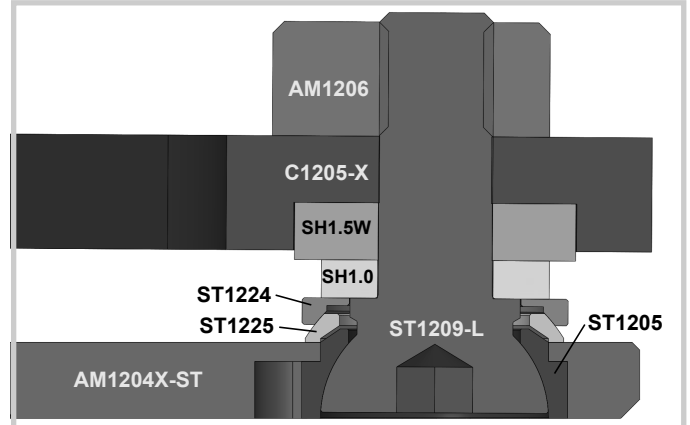
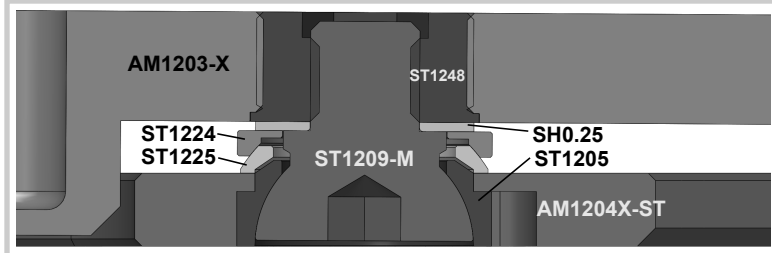


Optional roll centers sets.



ELRC Set

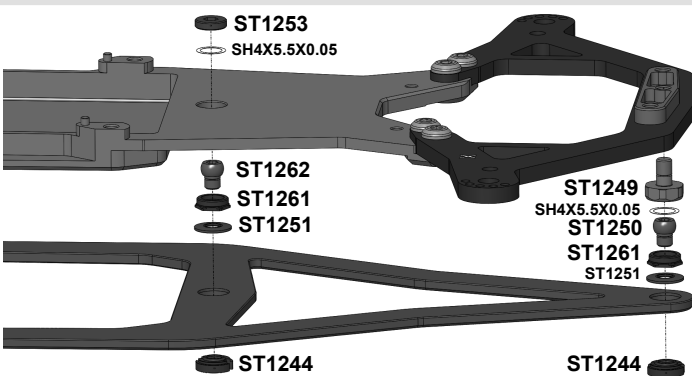
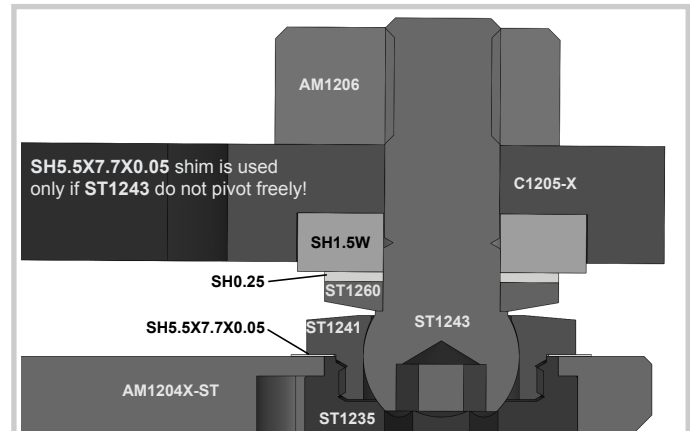
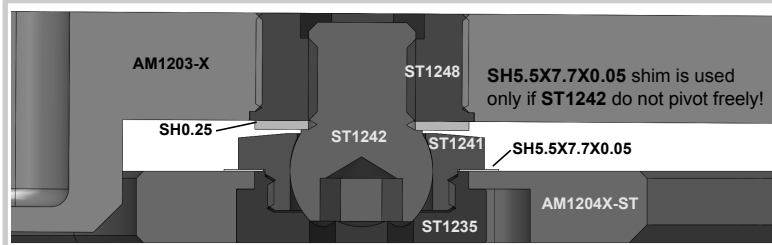
ST1205	- 2 pcs
ST1209-M	- 1 pcs
ST1209-L	- 1 pcs
ST1224	- 2 pcs
ST1225	- 2 pcs



HRC Set

ST1235	- 2 pcs
ST1241	- 2 pcs
ST1242	- 1 pcs
ST1243	- 1 pcs
SH5.5X7.7X0.05	- 2 pcs

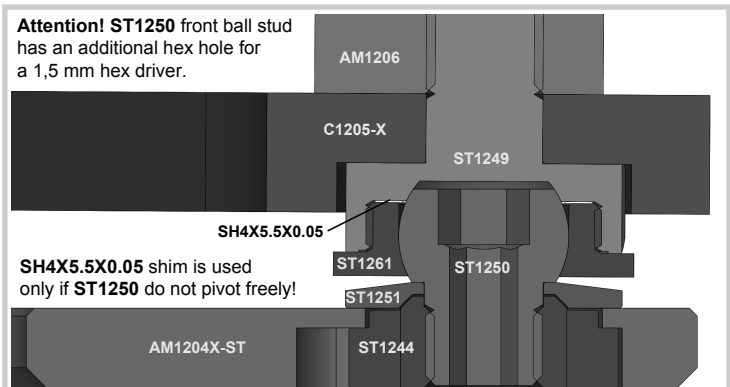
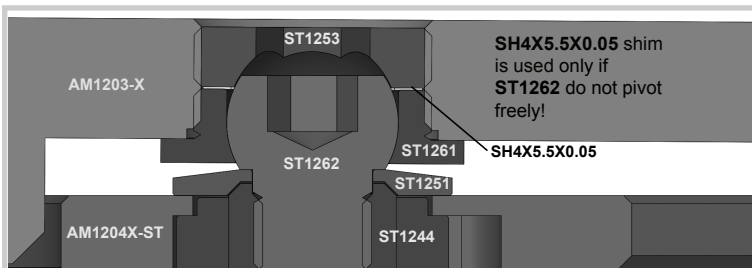
Try to install the joints without **SH5.5X7.7X0.05** shims first. Add these shims only if **ST1242** and **ST1243** do not pivot freely. Use **T03** tool when screwing **ST1241**.



EHRC Set

ST1244	- 2 pcs
ST1249	- 1 pcs
ST1250	- 1 pcs
ST1251	- 2 pcs
ST1261	- 2 pcs
ST1262	- 1 pcs
ST1253	- 1 pcs
SH4X5.5X0.05	- 2 pcs

Try to install the joints without **SH4X5.5X0.05** shims first. Add these shims only if **ST1250** or **ST1262** do not pivot freely. Use **T03** tool when screwing **ST1261**. Use 1,5 or 2 mm hex driver when screwing **ST1250** and **ST1262**. Use the 1,5 mm Allen key in the recess of **ST1204-ST** to secure **ST1244** when tightening or unscrewing **ST1250** and **ST1262**. Use 2,5 mm hex driver when screwing **ST1253**.

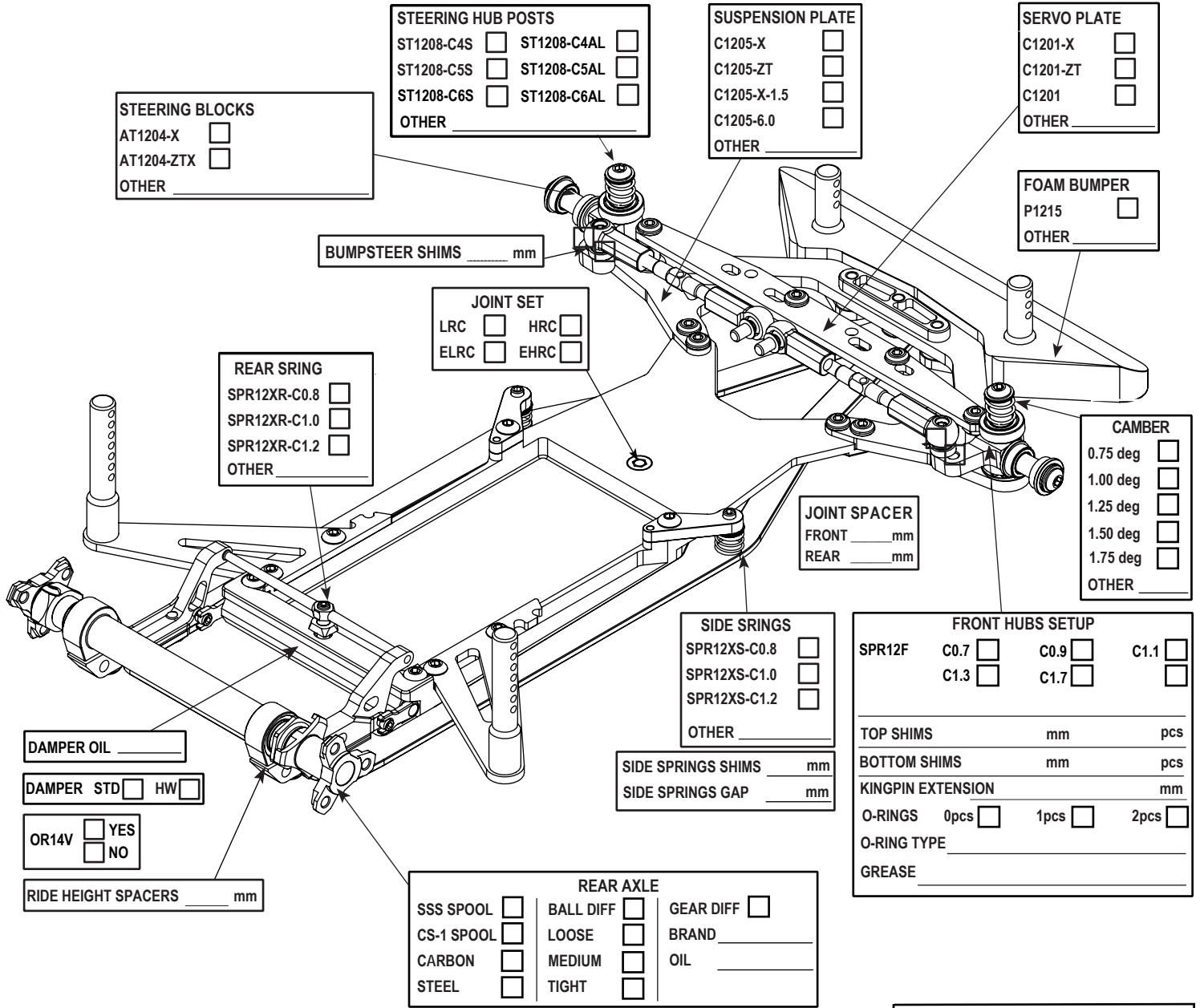


NAME _____ DATE _____ TEMPERATURE AIR / TRACK °C / °C

COUNTRY _____ ASPHALT OUTDOOR INDOOR CARPET

RACE _____ TRACK CONDITION BUMPY FLAT TECHNICAL MIXED FAST

TRACK _____ TRACTION LOW MEDIUM HIGH



STEERING BLOCKS

AT1204-X

AT1204-ZTX

OTHER _____

STEERING HUB POSTS

ST1208-C4S ST1208-C4AL

ST1208-C5S ST1208-C5AL

ST1208-C6S ST1208-C6AL

OTHER _____

SUSPENSION PLATE

C1205-X

C1205-ZT

C1205-X-1.5

C1205-6.0

OTHER _____

SERVO PLATE

C1201-X

C1201-ZT

C1201

OTHER _____

FOAM BUMPER

P1215

OTHER _____

BUMPSTEER SHIMS _____ mm

JOINT SET

LRC HRC

ELRC EHRC

REAR SPRING

SPR12XR-C0.8

SPR12XR-C1.0

SPR12XR-C1.2

OTHER _____

JOINT SPACER

FRONT _____ mm

REAR _____ mm

CAMBER

0.75 deg

1.00 deg

1.25 deg

1.50 deg

1.75 deg

OTHER _____

SIDE SPRINGS

SPR12XS-C0.8

SPR12XS-C1.0

SPR12XS-C1.2

OTHER _____

FRONT HUBS SETUP

SPR12F C0.7 C0.9 C1.1

C1.3 C1.7

DAMPER OIL _____

DAMPER STD HW

OR14V YES NO

RIDE HEIGHT SPACERS _____ mm

SIDE SPRINGS SHIMS _____ mm

SIDE SPRINGS GAP _____ mm

TOP SHIMS _____ mm _____ pcs

BOTTOM SHIMS _____ mm _____ pcs

KINGPIN EXTENSION _____ mm

O-RINGS 0pcs 1pcs 2pcs

O-RING TYPE _____

GREASE _____

REAR AXLE

SSS SPOOL BALL DIFF GEAR DIFF

CS-1 SPOOL LOOSE BRAND _____

CARBON MEDIUM OIL _____

STEEL TIGHT

FRONT RIDE HEIGHT (FRH)	mm	FRONT DROOP (FD)	mm
REAR RIDE HEIGHT (RRH)	mm	REAR DOWNSTOP (RD)	mm
GAP UNDER DAMPER (GUD)	mm	TRACK WIDTH	
DOWNSTOP NUT GAP (DNG)	mm	FRONT	mm
SPRING ROD HEIGHT (SRH)	mm	REAR	mm

BATTERY		SERVO	
BATTERY PLUGS	FRONT <input type="checkbox"/> BACK <input type="checkbox"/>	SERVOSAVER	
SERVO POSITION	LEFT <input type="checkbox"/> RIGHT <input type="checkbox"/>	SHIMS ON SERVOSAVER _____ mm	
ESC POSITION	LEFT <input type="checkbox"/> RIGHT <input type="checkbox"/>	TOE OUT _____ °	
		STEER. TRAVEL IN _____ ° OUT _____ °	

TIRES	FRONT	REAR	TIRE TREAD DIAGRAM			
BRAND			[Tread Diagram]			
TYPE			[Tread Diagram]			
DIAMETER	mm	mm	FRONT		REAR	
ADDITIVE			TIME	min	TIME	min

MOTOR	TOTAL WEIGHT	g
SPUR PINION ROLLOUT	F/R WEIGHT DISTRIBUTION %	
ESC	RECEIVER	
ESC SETTING	RADIO	
BODY	REAR BODY HEIGHT (SIDE DAMS) mm	
BEST LAP TIME	QUALIF. / FINAL POSITION /	

COMMENTS:

Spare parts

Parts #	Description	Parts #	Description
AM1202-X	Motor Mount	SPR12XR-C1.0	Rear Spring C1.0
AM1203-X	Battery Plate	SPR12XR-C0.8	Rear Spring C0.8
AM1204X-ST	Chassis Plate	SPR12XR-C1.2	Rear Spring C1.2
AM1206	Front Nut	SPR05	Body Clip
AM1207-X	Left Bulkhead	B156	3/16x5/16x1/8 Flanged Bearing
AT1201	Steering Block Nut	B168	1/4x3/8x1/8 Flanged Bearing
AT1202	Servo Post	SH12S-0.2	Spring Shim 0.2mm
AT1203	Rear Beam	SH12F0.5	Front Axle Spacer 0.5mm
AT1204-X	Steering Block	SH12R0.5	Rear Axle Spacer 0.5mm
AT1206	Servo Plate Post	SH1.5W	7.4x3x1.5mm Spacer
AT1207-X	Left Hub	SH12R2.0	Rear Axle Spacer 2.0mm
AT1215	Spur Nut	SH12R3.5	Rear Axle Spacer 3.5mm
AT25-2	Turnbuckle 39mm	SH0.1	6x8x0.1mm Shim
DT1202	Steering Washer	SH0.25	6x3x0.25mm Spacer
DT1211	Side Spring Holder	SH0.5	6x3x0.5mm Spacer (Silver)
DT1210	Downstop Nut	SH1.0	6x3x1.0mm Spacer (Gray)
ST1201-X	3mm Ball Stud	SH5.5X7.7X0.05	5.5x7.7x0.05mm Shim
ST1202-XS	Damper Rotor	OR155SI	1.5x5mm O-Ring Silicone
ST1203-X	Downstop Rod	OR230	2x30mm O-Ring
ST1204-X	Damper Case	OR14V	1x4mm O-Ring Viton
ST1236	Rear Spring Rod	OR15	1x5mm O-Ring
ST1238	Rear Spring Seat	OR91	9x1mm O-Ring
ST1208-C4AL	Steering Block Post	OR915	9x1.5mm O-Ring
ST1248	Battery Plate Nut	SC25X8	M2.5x8 Cap Head Screw
ST1254	LRC Seat	SC3X5	M3x5 Cap Head Screw
ST1255	LRC Nut	SC3X6	M3x6 Cap Head Screw
ST1256	LRC Rear Ball	SB3X5	M3x5 Button Head Screw
ST1257	LRC Front Ball	SB3X6	M3x6 Button Head Screw
ST1211	Spring Retainer	SB3X8	M3x8 Button Head Screw
ST24-4.0	4.0mm Ball Stud	SB3X10	M3x10 Button Head Screw
ST24	4.8x6mm Ball Stud	SB3X12	M3x12 Button Head Screw
ST1260	Tapered Spacer	SF3X10	M3x10 Flat Head Screw
P1215	Foam Bumper	SB3X5AL	M3x5 Alloy Screw
P13-4	Ball Cup	ST112	Centering Screw
P1213	Ball Cup 4.0 mm	STS-A12	A12 Stickers Sheet
P14-2	Body post	SIO100K	100k Silicone Oil
C1201-X	Servo Plate	STA1212-X	Composite Axle
C1203-X	Body Holder	DG1XM	DG1XM Gauge
C1204	Bumper Plate	T03	6/7 mm Wrench
C1205-X	Suspension Plate	AK1.5	1.5 mm Allen Key
SPR12F-C1.1	Front Spring C1.1		
SPR12XS-C1.0	Side Spring C1.0		
SPR12XS-C0.8	Side Spring C0.8		
SPR12XS-C1.2	Side Spring C1.2		

Optional parts

Parts #	Description	Parts #	Description
RHG 4.2X	Ride Height Gauge	C1205-6.0	Suspension Plate
CS-1	Carbon Spool Set	C1201-6.0	Servo Plate
AT1204-ZTL	Steering Block Zero Trail	C1201	Servo Plate
ST1208-C5AL	Steering Hub Post 5 Deg	C1205-ZT	Suspension Plate Zero Trail
ST1208-C6AL	Steering Hub Post 6 Deg	C1205-X-1.5	Suspension Plate
ST1208-C2AL	Steering Hub Post 2 Deg	C1201-ZT	Servo Plate Zero Trail
ST1208-C6	Steering Hub Post 6 Deg	AM1204WC	Chassis Plate
ST1216	Balance Weight 5 g	ST1208-C2ST	Steering Hub Post 2 Deg
ST1212	Spring Steel Axle	ST1208-C4ST	Steering Hub Post 2Deg
C1206	Carbon Axle	ST1208-C5ST	Steering Hub Post 5 Deg
OR155PU	1.5x3mm O-Ring PU	ST1208-C6ST	Steering Hub Post 6 Deg
SH12R5.5	Rear Axle Spacer 5.5mm	SPR12S-C0.4	Side Spring Long C0.4
SC25X7AL	2.5x7 Cap Head Screw Alloy	SPR12S-C0.5	Side Spring Long C0.5
AT1208	Right Hub	SPR12S-C0.6	Side Spring Long C0.6
SPR12F-C1.7	Front Spring C1.7	ELRC	Extra Low Roll Center Set
SPR12F-C1.3	Front Spring C1.3	HRC	High Roll Center Set
SPR12F-C0.9	Front Spring C0.9	EHRC	Extra High Roll Center Set
SPR12F-C0.7	Front Spring C0.7	SH12F0.1	Front Axle Spacer 0.1mm

