

CAUTION

To prevent serious personal injury and/or property damage, operate all remotely controlled models in a responsible manner as outlined herein.

◆ Safety Precautions

- 1.1 This radio-controlled model is not a toy, it is designed for persons 14 years of age or older.
- 1.2 Do not operate your vehicle on unsafe terrain; always pay attention to your surroundings.
- 1.3 Never operate your vehicle on public roadways, around moving people, animals, or operating machinery.
- 1.4 Keep clear of power lines and high-powered radio equipment to minimize radio frequency interference.
- 1.5 Since this vehicle contains small components, it may be a choking hazard for small children. Keep the vehicle and any spare parts out of reach of small children.

◆ Inspect your radio-controlled model before operation

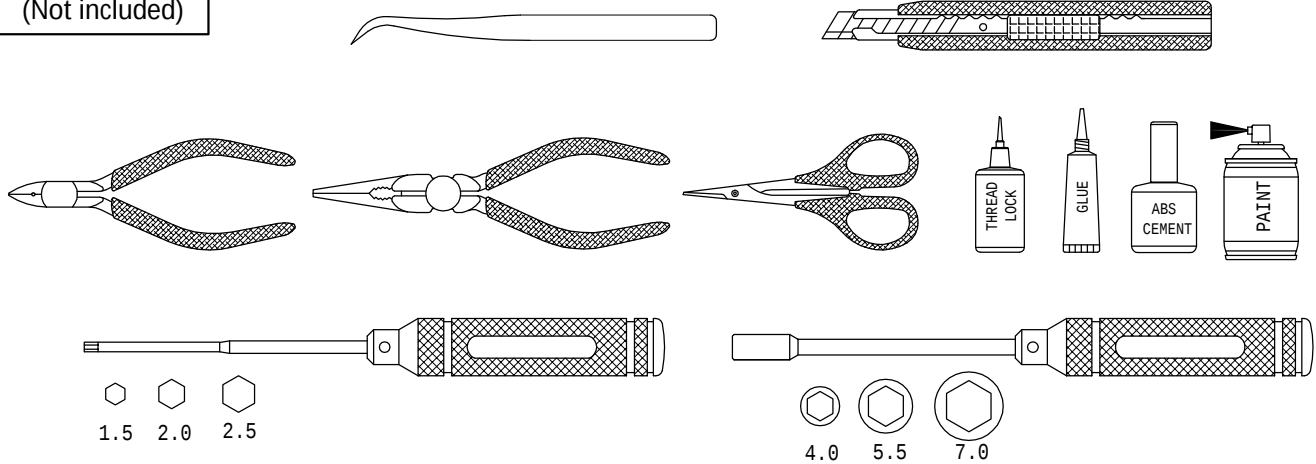
- 2.1 Ensure that all screws are properly tightened. Use thread-lock to secure any metal to metal contacts- especially for components designed to withstand torque (servo mounts, motor mount, drive shaft grub screws etc.).
- 2.2 Always check the battery voltage for both the transmitter and vehicle prior to operating your vehicle. Keep the batteries fresh in the transmitter and always begin your vehicle runs with a fully charged battery pack.
- 2.3 Always check that the motor and servo are operating smoothly and in the right direction prior to operation. If binding between components is observed, replace parts as necessary to reduce possibility of component or servo damage.
- 2.4 To turn on your vehicle, always power on your transmitter first, then power on your receiver.

◆ After operating your radio-controlled model

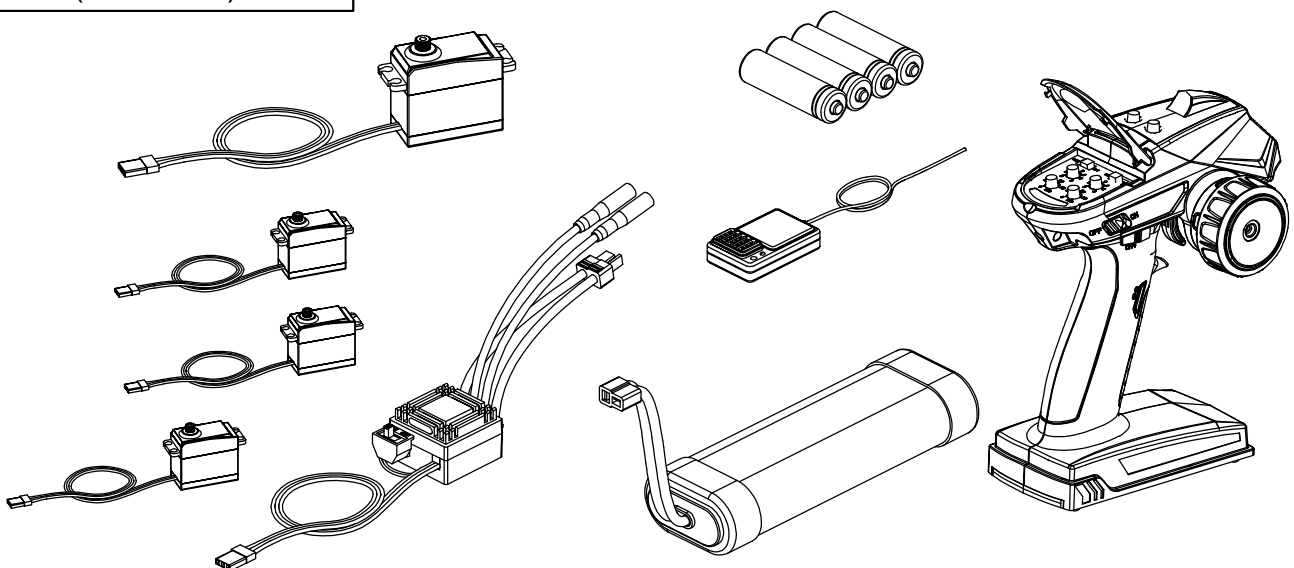
- 3.1 To turn off the vehicle, always power off your receiver prior to powering off your transmitter.
- 3.2 Use caution when handling the vehicle- components, especially the ESC and motor which will be hot after operation.
- 3.3 Never use battery packs which are dented or otherwise damaged. Ensure that the wire insulation is intact and that connectors are properly soldered. Lithium batteries can become fire hazards if mishandled.

TOOLS

(Not included)

**Electronic equipment**

(Not included)



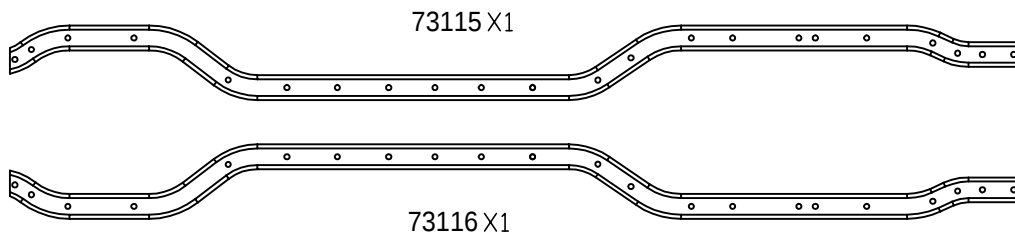
EMO X Assembly Remind

1. The spraying and bonding process to body shall be carried out in a ventilated place, and safety masks shall be worn.
2. Please conduct simulated assembly to determine the sequence of component before bonding or spraying.
3. For the wiring diagram of electronic equipment, please refer to the description on page 47 of the manual; Please conduct power commissioning when the wheels are suspended.
4. This product is a high-precision model. Please read this manual carefully before assembly and assemble in strict accordance with this manual.
5. Screw thread sealant shall be used during assembly. Please noted that the screw thread sealant shall not have any contact with the shell parts. The screw thread sealant and ABS materials will produce chemical reaction, which will embrittle and crack the shell.
6. It is recommended to use professional tools for installation. Please pay attention to the safety when use tools.

Requirements and recommendations for electronic equipment:

Name	Specifications	Remarks
Remotes controller	6 channels or Up	Waterproof connector is recommended
Servo	Steering servo $\geq 25\text{KG}$	High pressure standard Servo in waterproof
	Shift servo $\geq 3\text{KG} \times 3$	For the size of medium Servo, please refer to the configuration drawing below
ESC	Continuous current $\geq 80\text{A}$	ESC BEC $> 3\text{A}$
Brush motor	Brush motor 560 25T or Up	The Max. Size: $\varnothing 39\text{mm} \times 80\text{mm}$ Installation hole spacing: 25mm
Brushless motor	$\leq 2200\text{KV}$	
Motor gear	M=0.8 Z=16T~20T	M=0.8 $\neq$ 32P

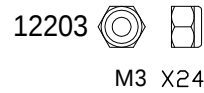
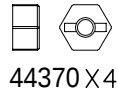
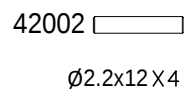
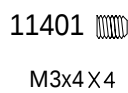
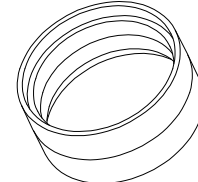
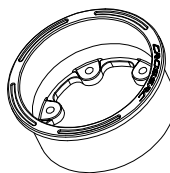
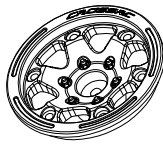
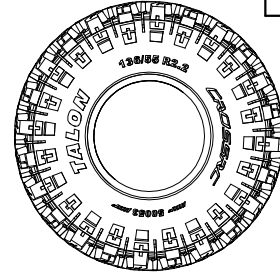
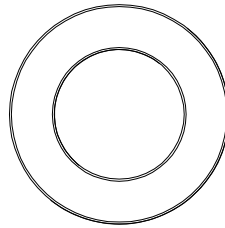
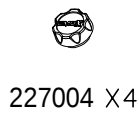
Battery box size	Motor gear	Total reduction ratio		Environment	
135*50*40	20T	High speed 1:17.8 Low speed 1:38.9	Suitable for crossing and climbing		
Gear reduction ratio range reference					
	16T	17T	18T	19T	20T
High speed	1:22.1	1:20.8	1:19.6	1:18.6	1:17.8
Low speed	1:48.3	1:45.4	1:42.9	1:40.6	1:38.9



91006 X1 91007 X1

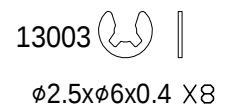
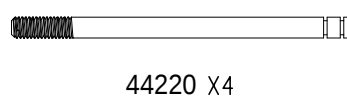
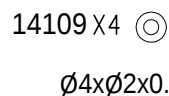
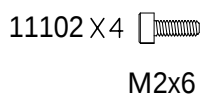
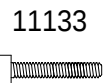
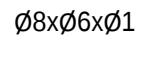
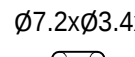
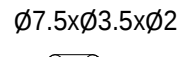
BAG(A)

EMOX4



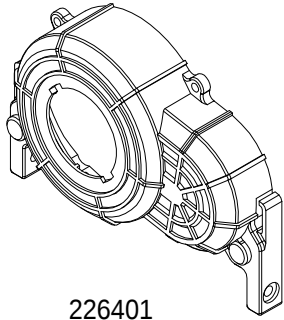
BAG(B)

EMOX4

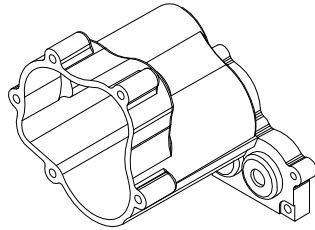


BAG(C)

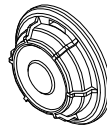
EMOX4



226401



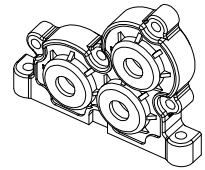
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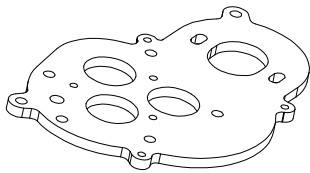
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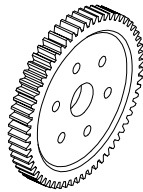
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226405



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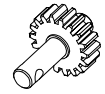
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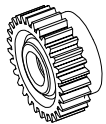
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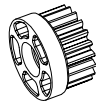
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41749 X2



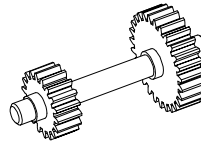
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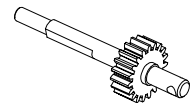
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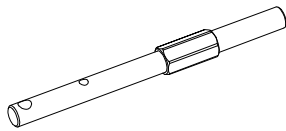
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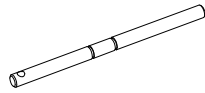
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42234



42235



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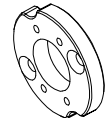
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44214



74016



44314

13001

 $\varnothing 3 \times \varnothing 7.8 \times 0.5$ X2

42236

 $\varnothing 5.1 \times \varnothing 7.5 \times 2.5$ X1

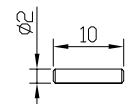
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 $\varnothing 5.1 \times \varnothing 8 \times 1.5$ X2

72007

 $\varnothing 5 \times \varnothing 8 \times 0.3$ X11

14102

 $\varnothing 3 \times \varnothing 7 \times 0.5$ X2

41209 X1

11217



M2.5x10 X6

11216



M2.5x6 X3

11205



M3x6 X6

11207



M3x10 X7

11107



M3x10 X2

11401



M3x4 X1

11315



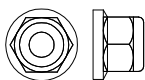
M2.5x6 X3

11331



M4x10 X2

12304



M4 X1



41834 X1



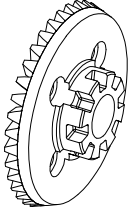
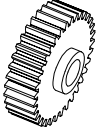
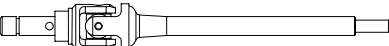
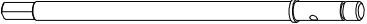
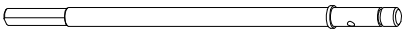
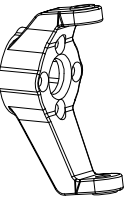
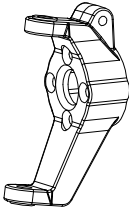
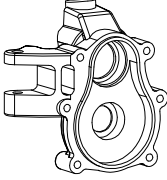
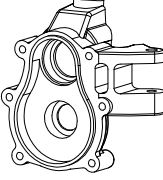
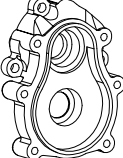
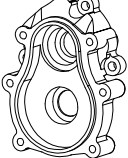
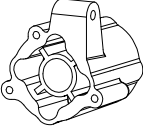
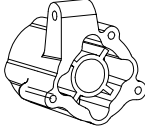
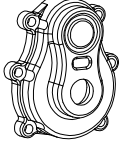
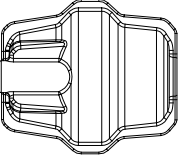
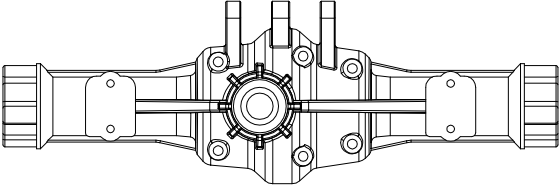
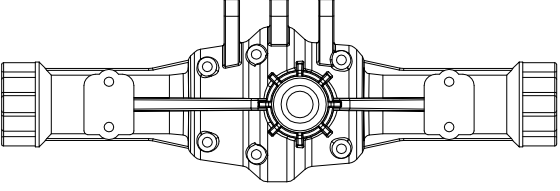
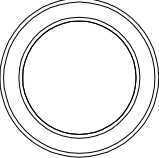
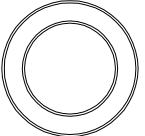
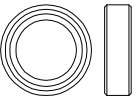
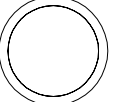
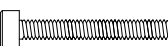
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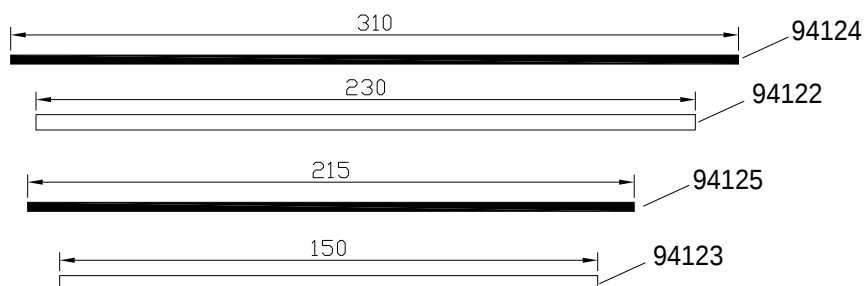
 $\varnothing 5 \times \varnothing 10 \times 4$ X11

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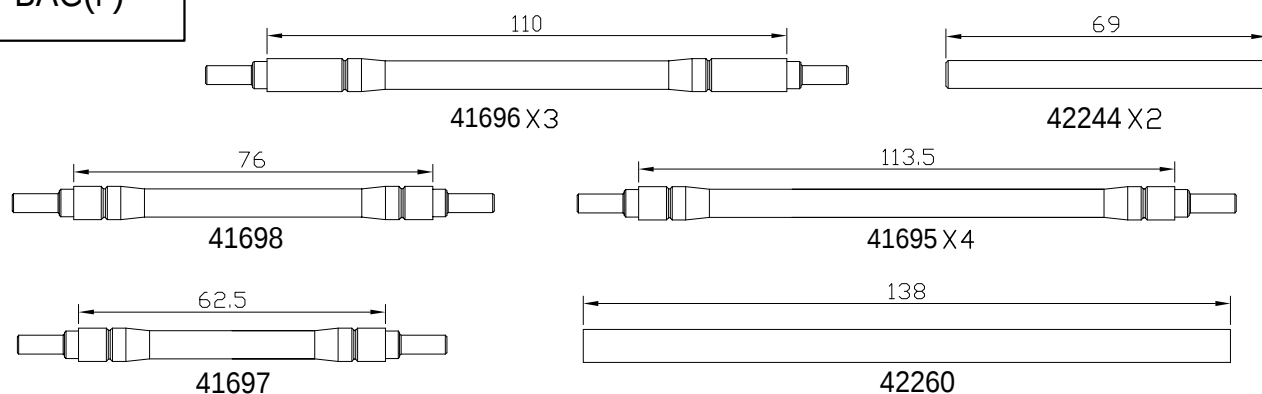
 $\varnothing 5 \times \varnothing 8 \times 2.5$ X4

BAG(D)	EMOX4							
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 95091	 95092	 42241	 42242	 42243 X2	 42223 X4	 44369 X4		
 226701	 226702	 226703	 226704	 226705	 226706			
 226707	 226708	 226709 X4	 226710 X4	 226711 X2	 226602 X2			
 226601				 226603				
 15015 Ø15xØ21x4 X2	 15016 Ø12xØ18x4 X2	 15018 Ø8xØ12x3.5 X2	 15012 Ø5xØ10x4 X14	 15022 Ø7xØ13x4 X4	 75026 Ø12xØ15x0.2 X2	 72007 Ø5xØ8x0.3 X2		
 13002 Ø3.8xØ9.2x0.6 X6	 11227 M2.5x8 X8	 11316 M2.5x10 X18	 11125 M2.5x10 X38	 11120 M2.5x20 X12	 42208 M3x10 X4	 75023 Ø2x14 X2	 41259 Ø2x7.5 X8	

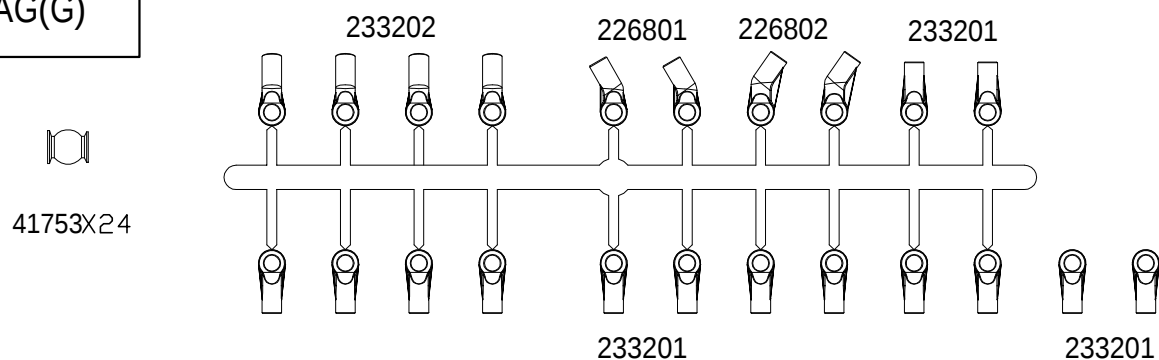
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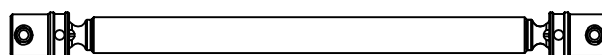
BAG(F)



BAG(G)



BAG(H)

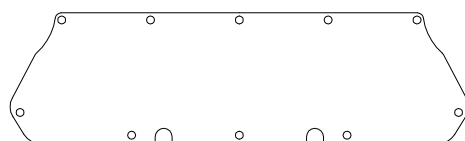


95076 X2

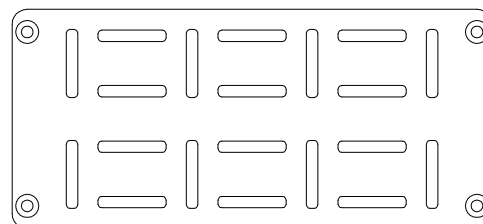
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73096 X2

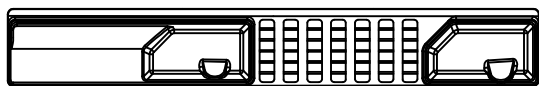


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BAG(J)



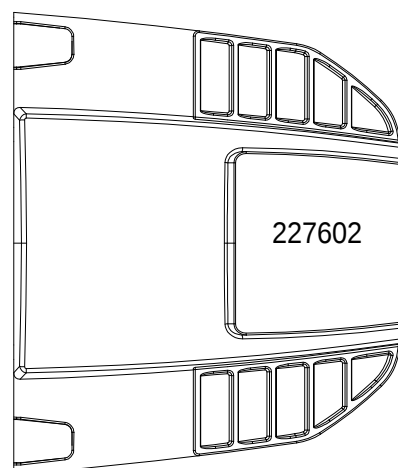
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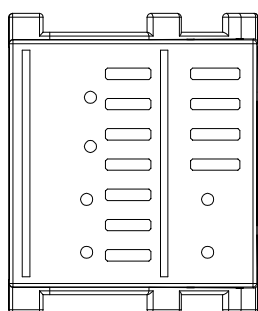


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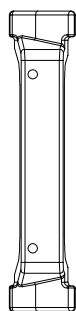


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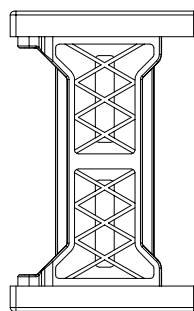
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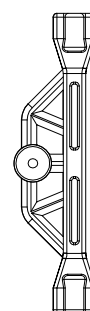
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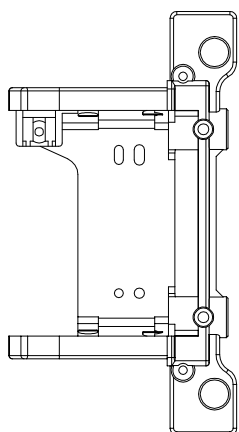
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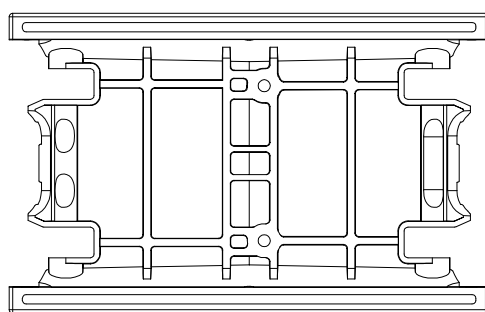
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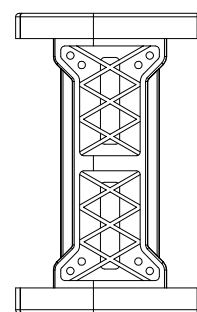
234405



234302

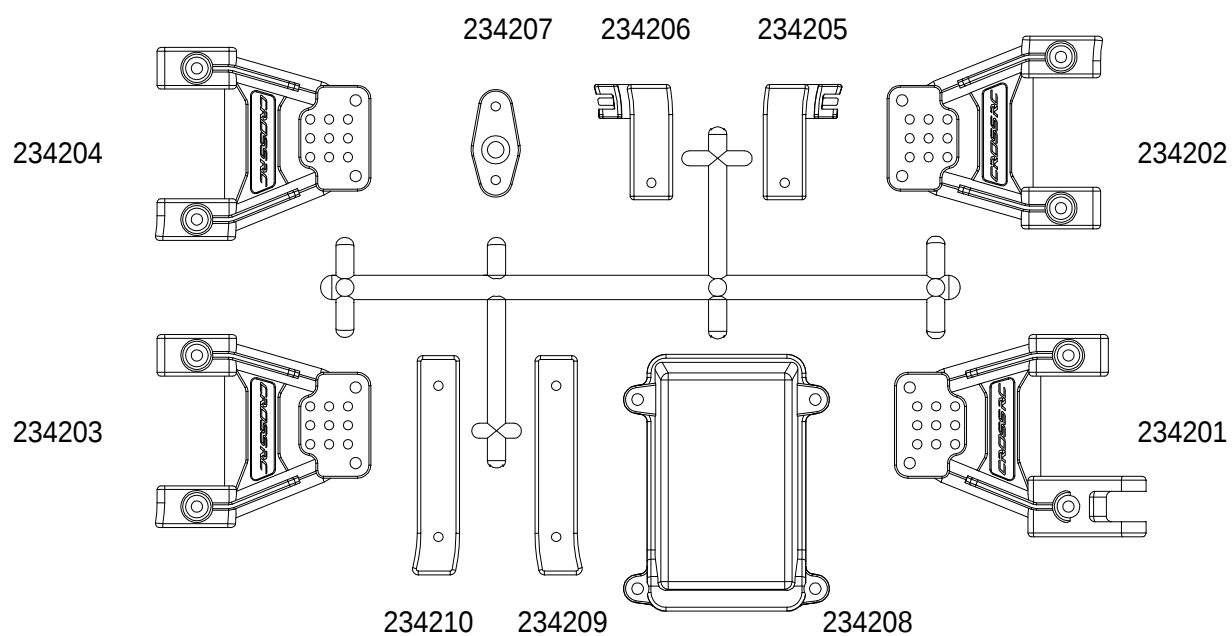


235902

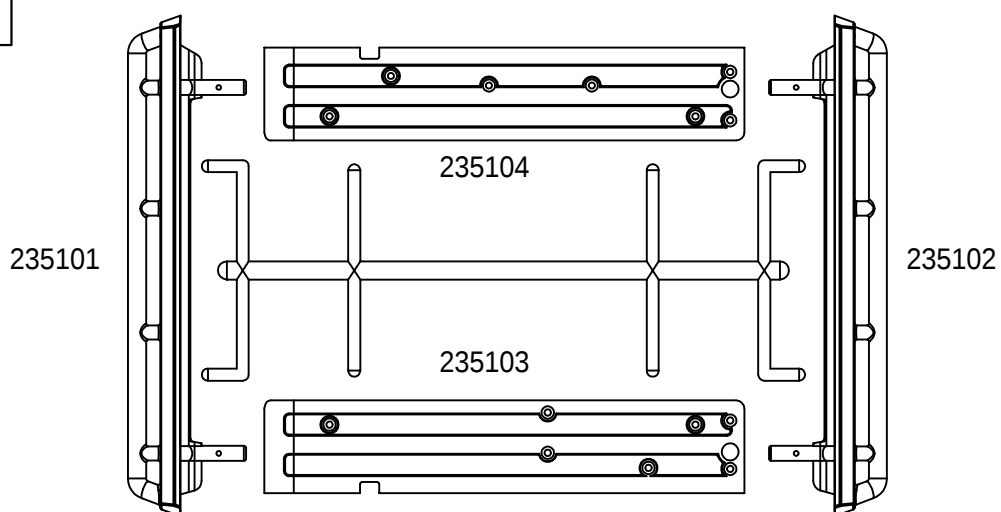


235901

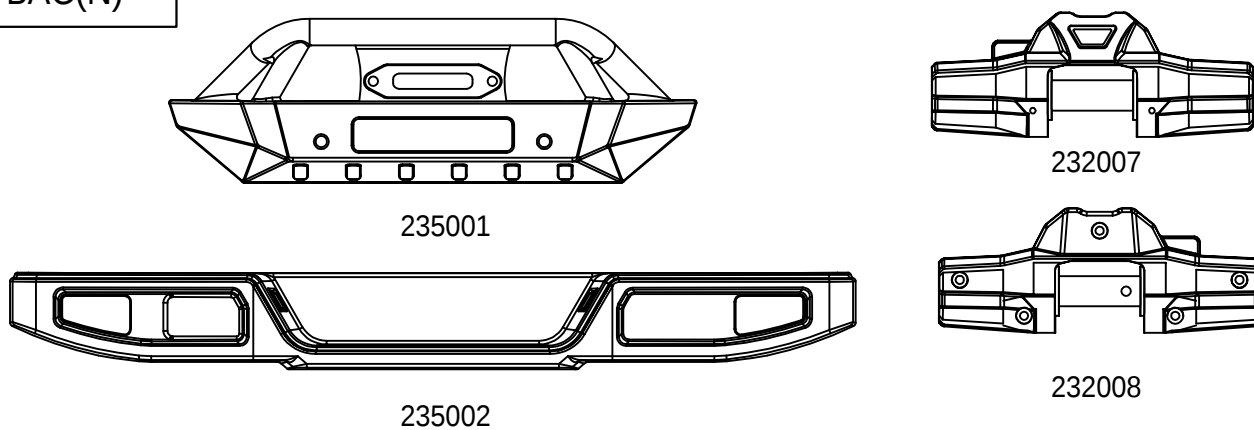
BAG(L)

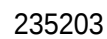
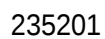


BAG(M)



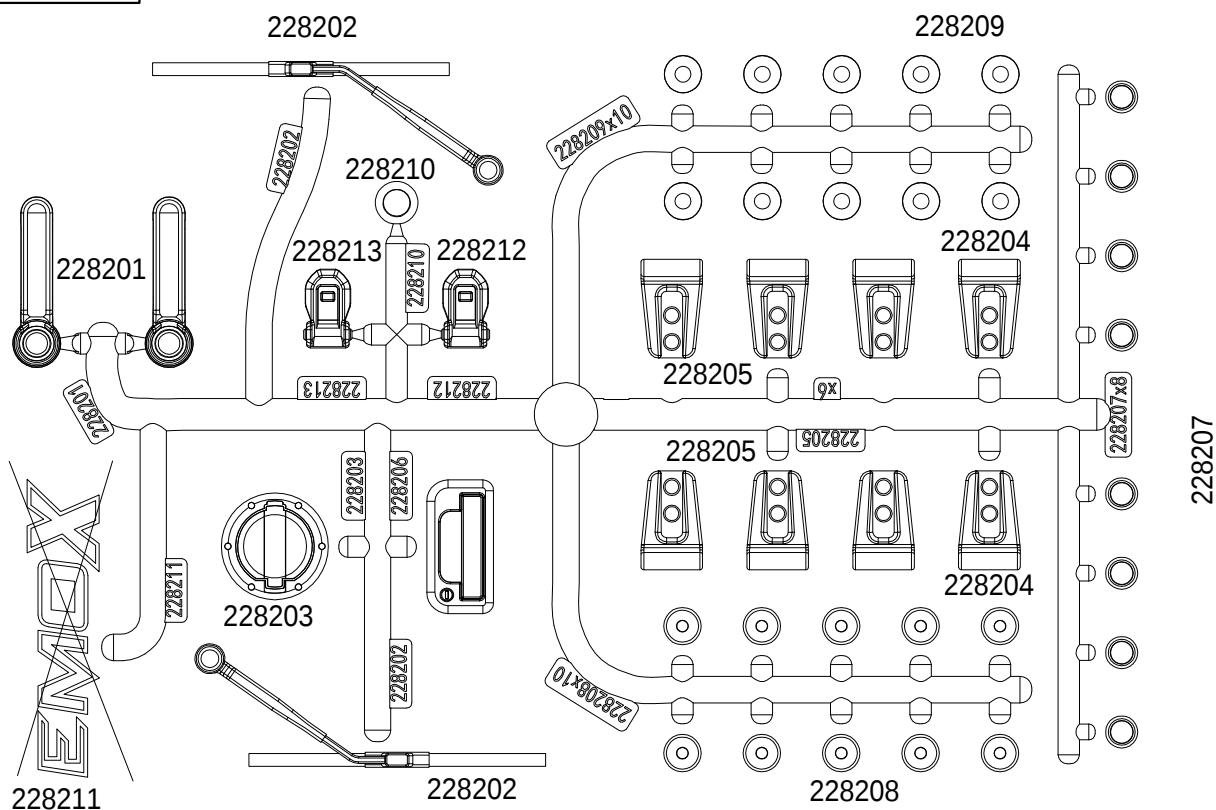
BAG(N)



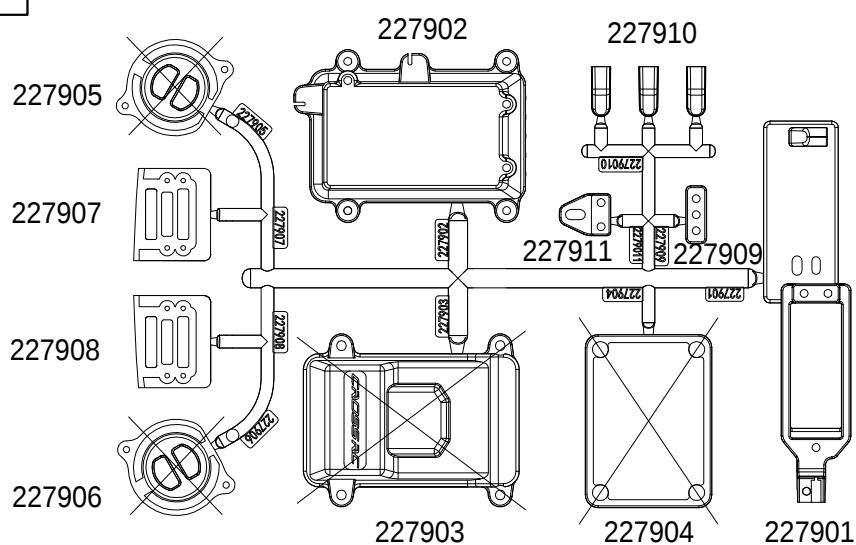


235202

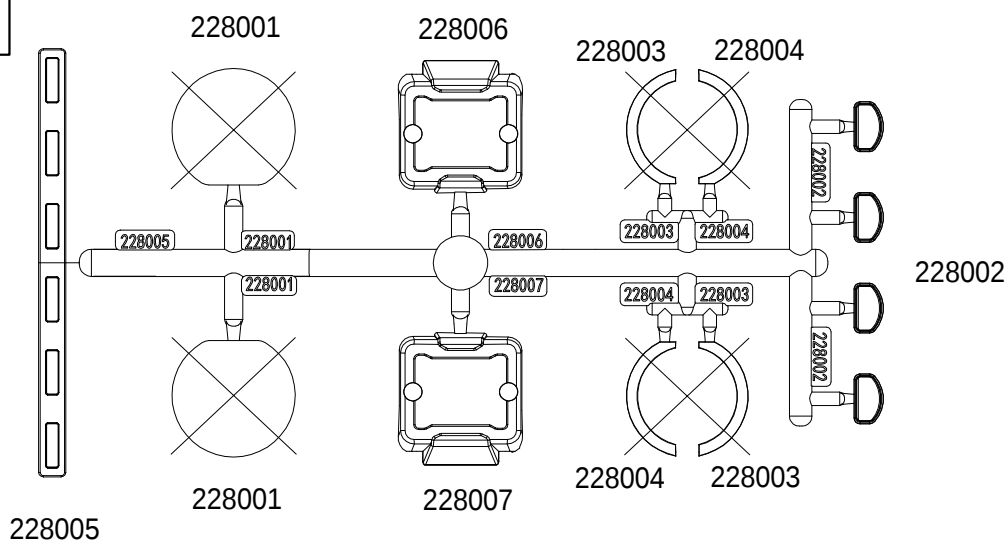
BAG(P)



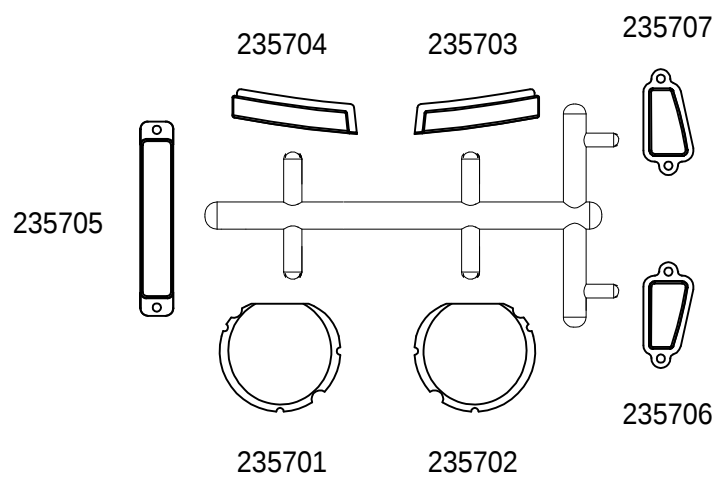
BAG(Q)



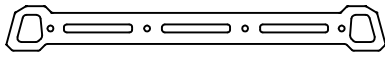
BAG(R)



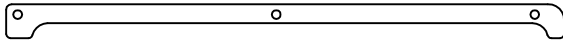
BAG(S)



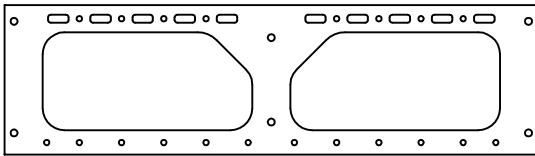
BAG(T)



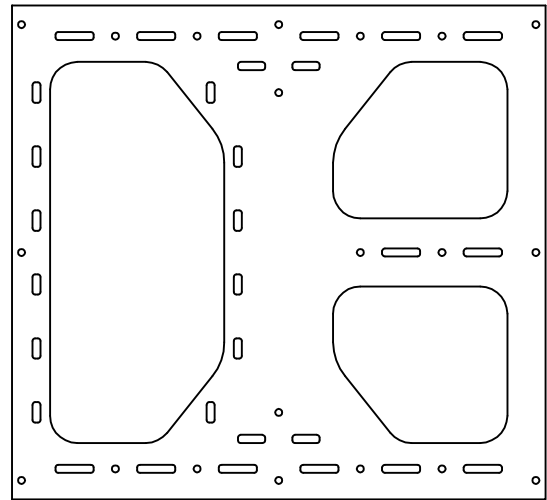
44275 x2



44278 x2



44276 x2



44277

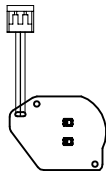
BAG(U)



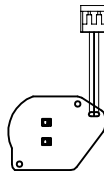
87195



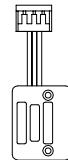
87196



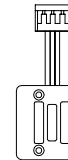
87186



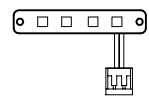
87187



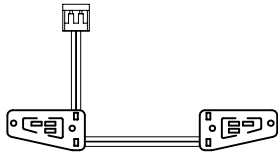
87189



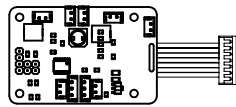
87188



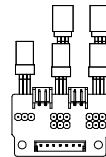
87191



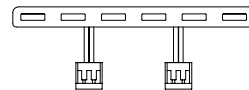
87192



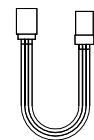
87193



87194

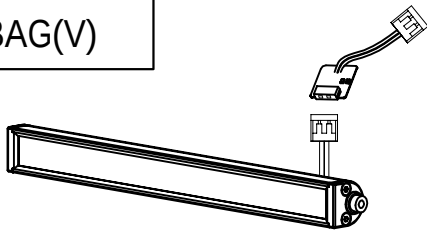


87148



86067

BAG(V)



95108



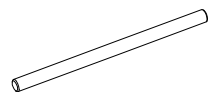
73117



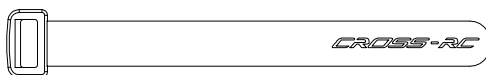
73118



95096

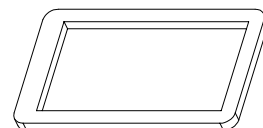


94089



91004 X1

71294



71293

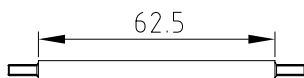
BAG(W)



41336 X4



41205



41780

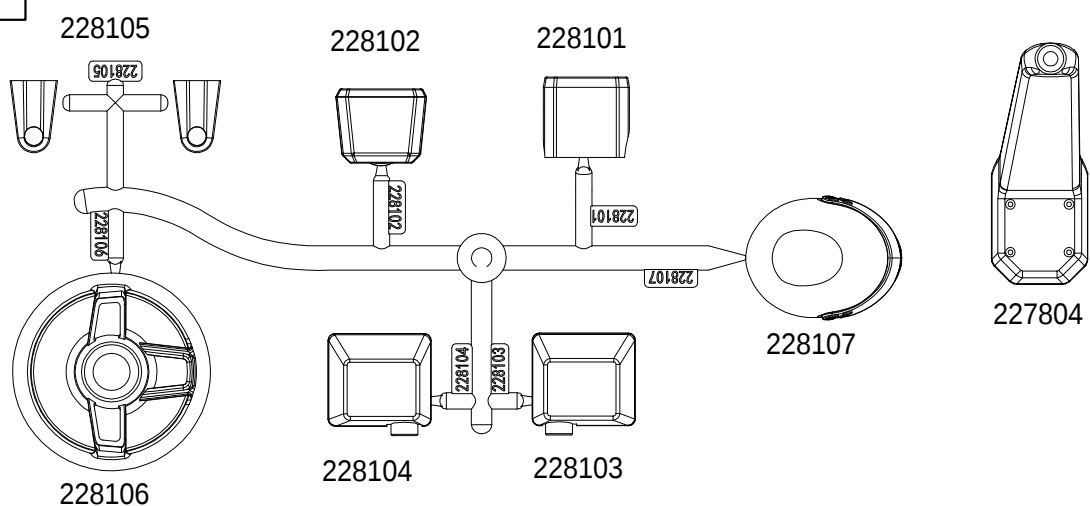


41781

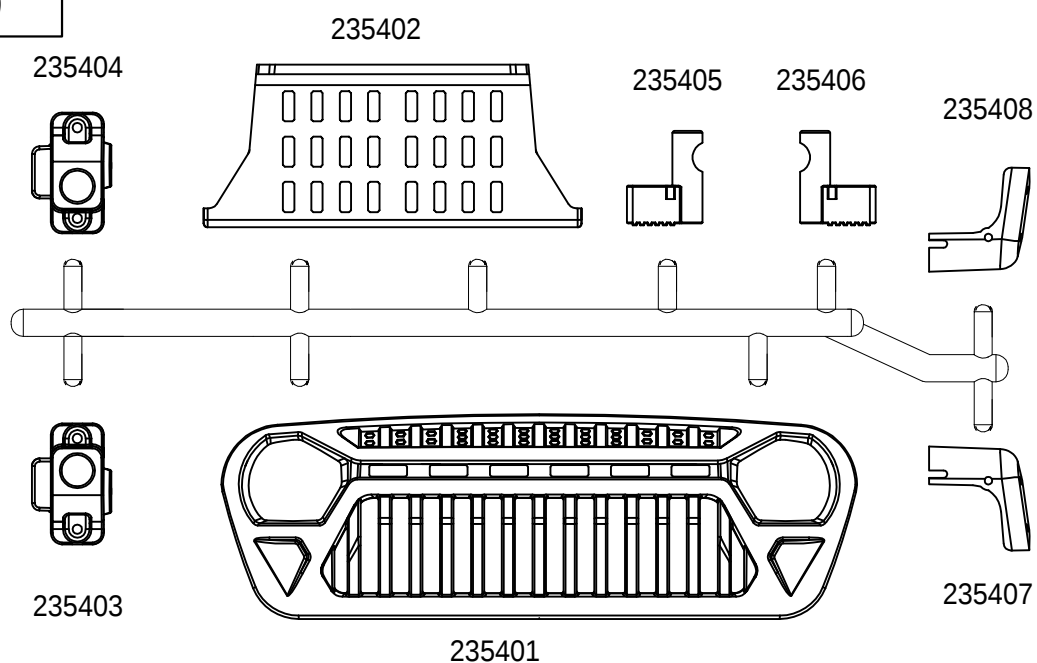


223903 X4

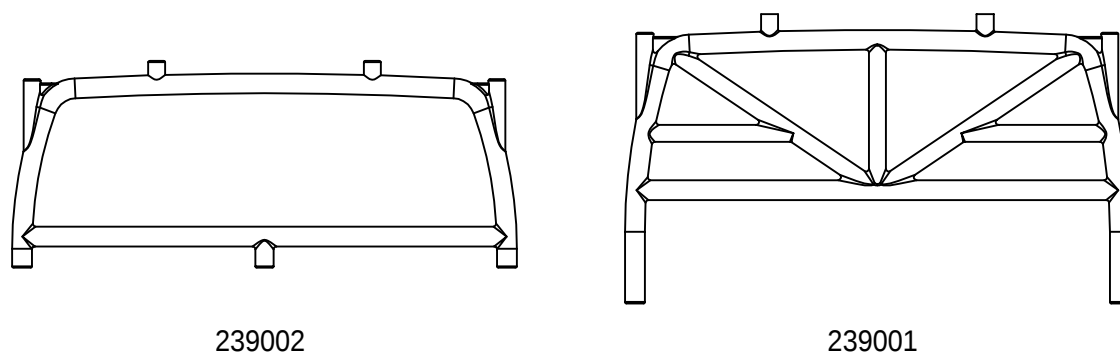
BAG(X)



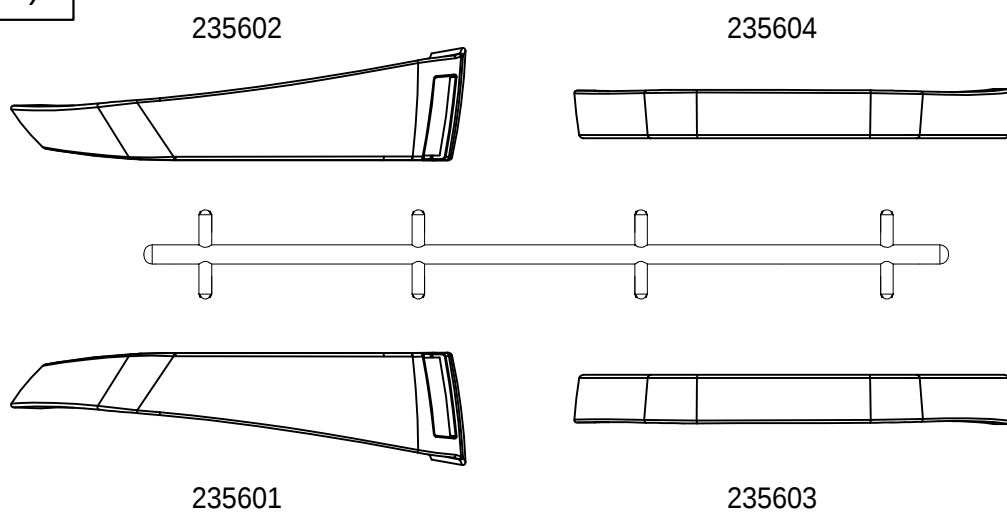
BAG(Y)



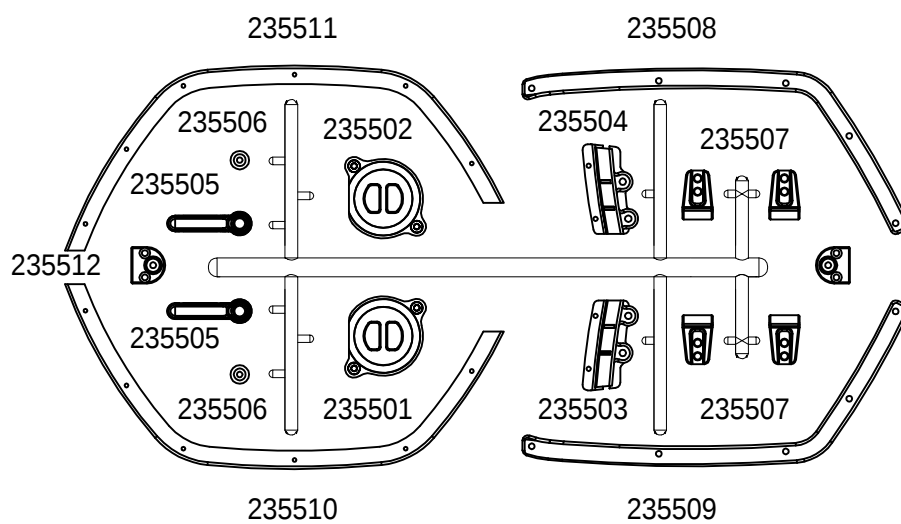
BAG(Z)



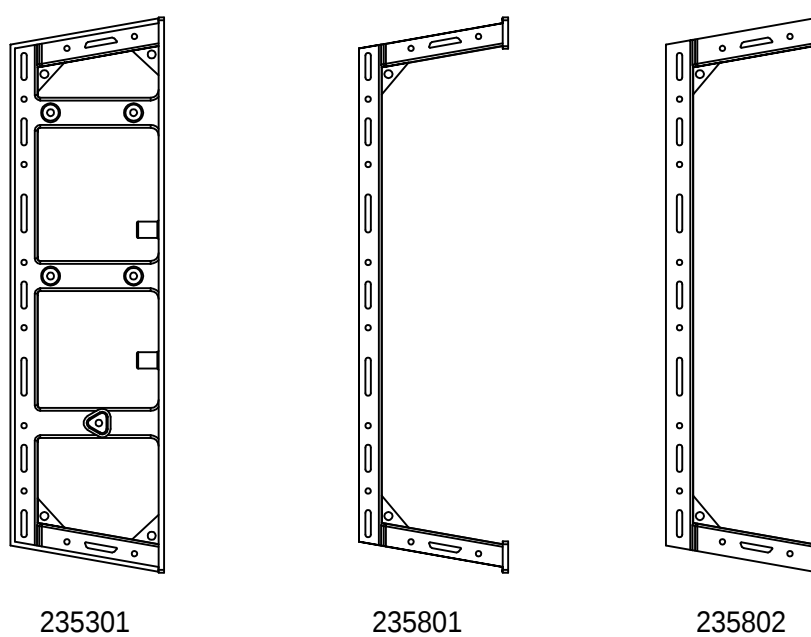
BAG(AA)



BAG(BB)



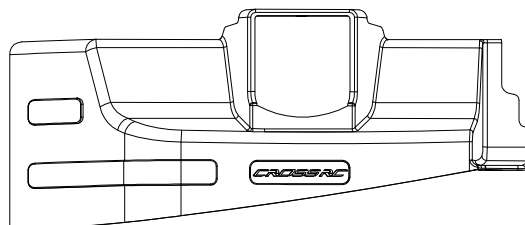
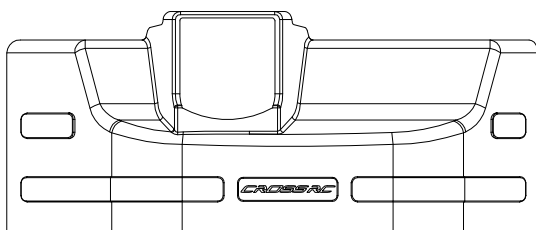
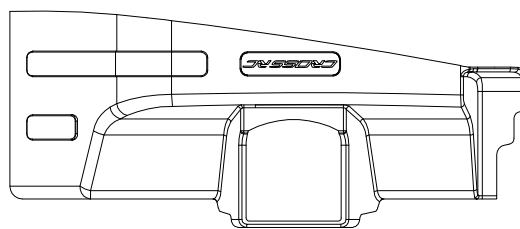
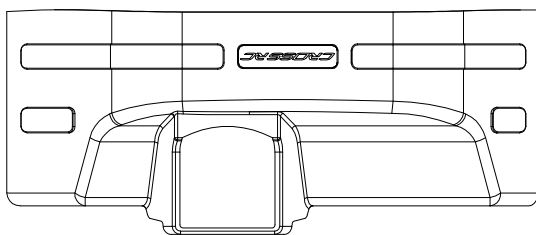
BAG(CC)



BAG(DD)

227304

227203



227303

227204

BAG(EF)

234601

234604

234607

234608

234603

234602

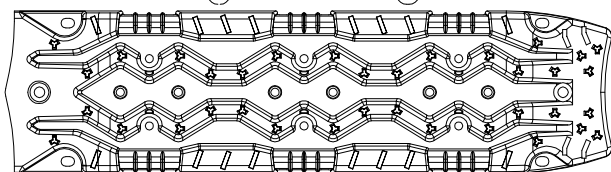
234605

234606

BAG(FF)

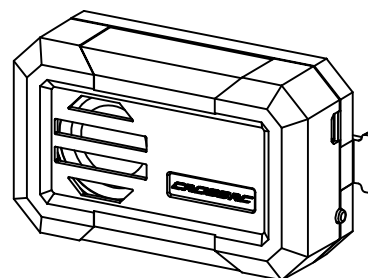
232203

232202



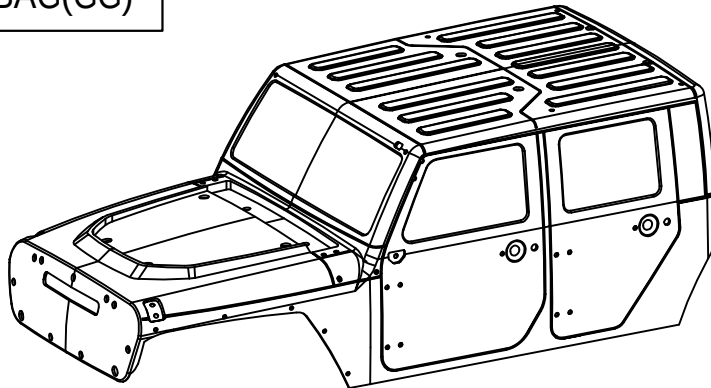
232201

BAG(U)

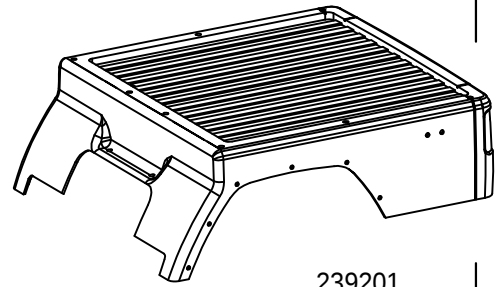


95109

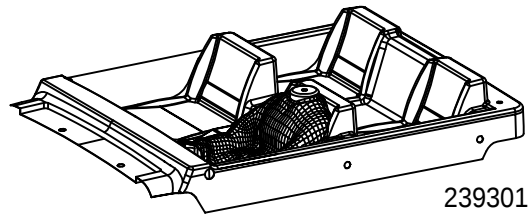
BAG(GG)



239101



239201



239301

BAG(HH)



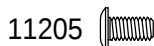
M2.5x18 X4



M4x20 X2



M2.5x10 X14



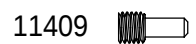
M3x6 X4



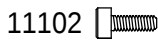
M3x18 X11



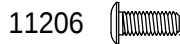
M3x8 X1



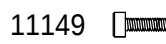
M4x11 X4



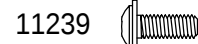
M2x6 X50



M3x8 X16



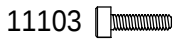
M1.6x6 X4



M3x8 X19



M4x13.5 X4



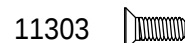
M2x8 X28



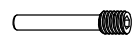
M3x10 X41



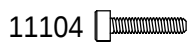
M3x22 X2



M3x8 X18



42209 X2



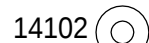
M2x10 X6



M3x12 X12



M3x25 X5



ø3xø7x0.5 X1



M3x8X10 X1



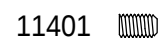
M2x14 X1



M3x14 X2



M3x28 X4



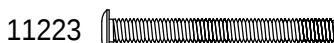
M3x4 X1



M3 X3



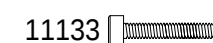
M3x16 X7



M3x30 X3



M2x20 X2

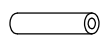


M2x12 X1



M3x14 X2

BAG(II)



91176 X2



42231 X2



M2.5x8 X3



M3 X1



M2 X3



M3x4 X3



M2.5x6 X28



44172 X1



91175 X3



41819 X2



94056 X1

EMOX4

BAG(C)

15012

 $\phi 5 \times \phi 10 \times 4$ X5

72007

 $\phi 5 \times \phi 8 \times 0.3 \times 3$

11315



M2.5x6 X3

15014

 $\phi 5 \times \phi 8 \times 2.5$ X4

42236

 $\phi 5.1 \times \phi 7.5 \times 2.5$ X1

42203

 $\phi 5.1 \times \phi 8 \times 1.5$ X2

13001

 $\phi 3 \times \phi 7.8 \times 0.5$ X2

15012

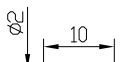
 $\phi 5 \times \phi 10 \times 4$ X1

11207

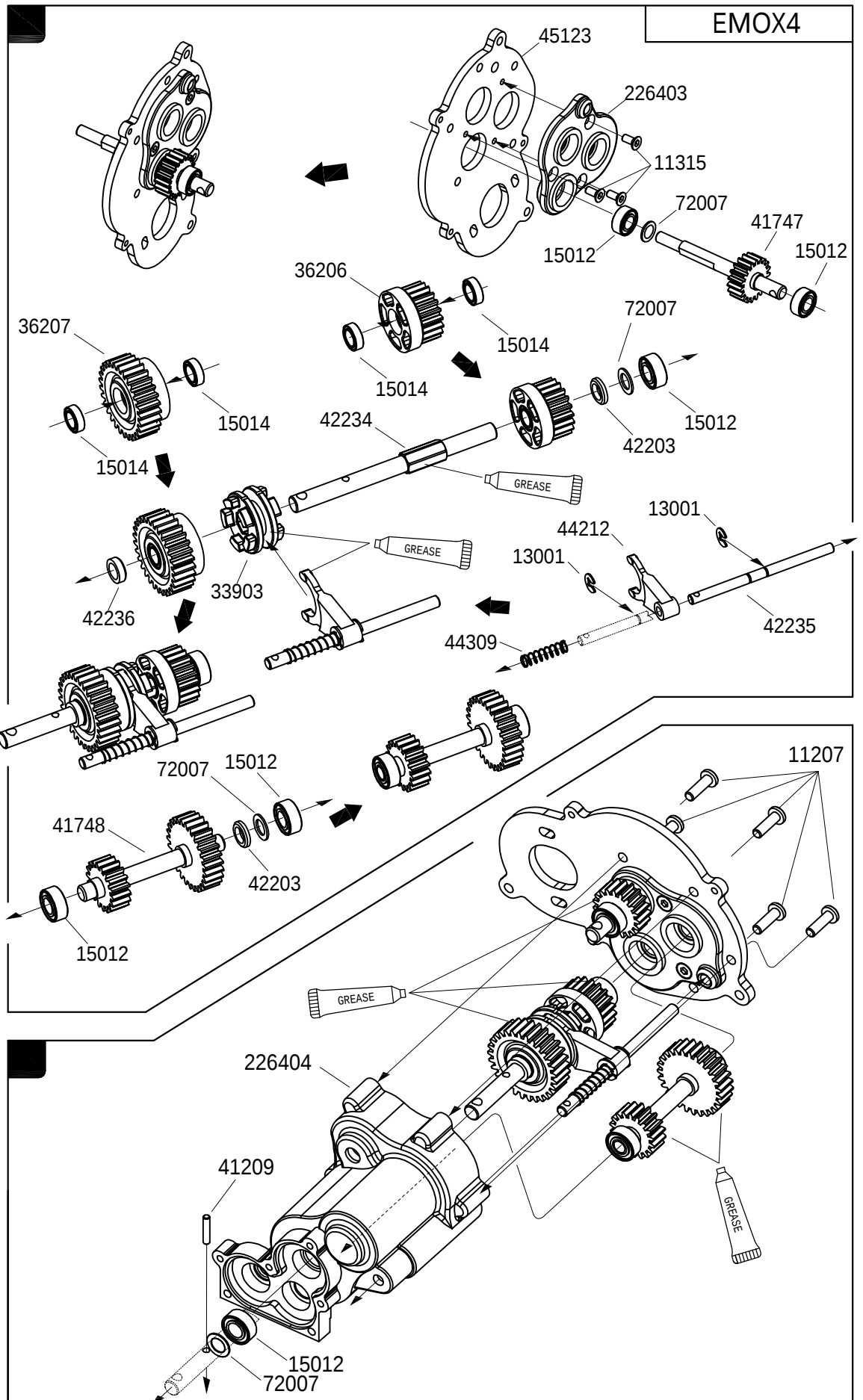


M3x10 X5

72007

 $\phi 5 \times \phi 8 \times 0.3 \times 1$ 

41209 X1



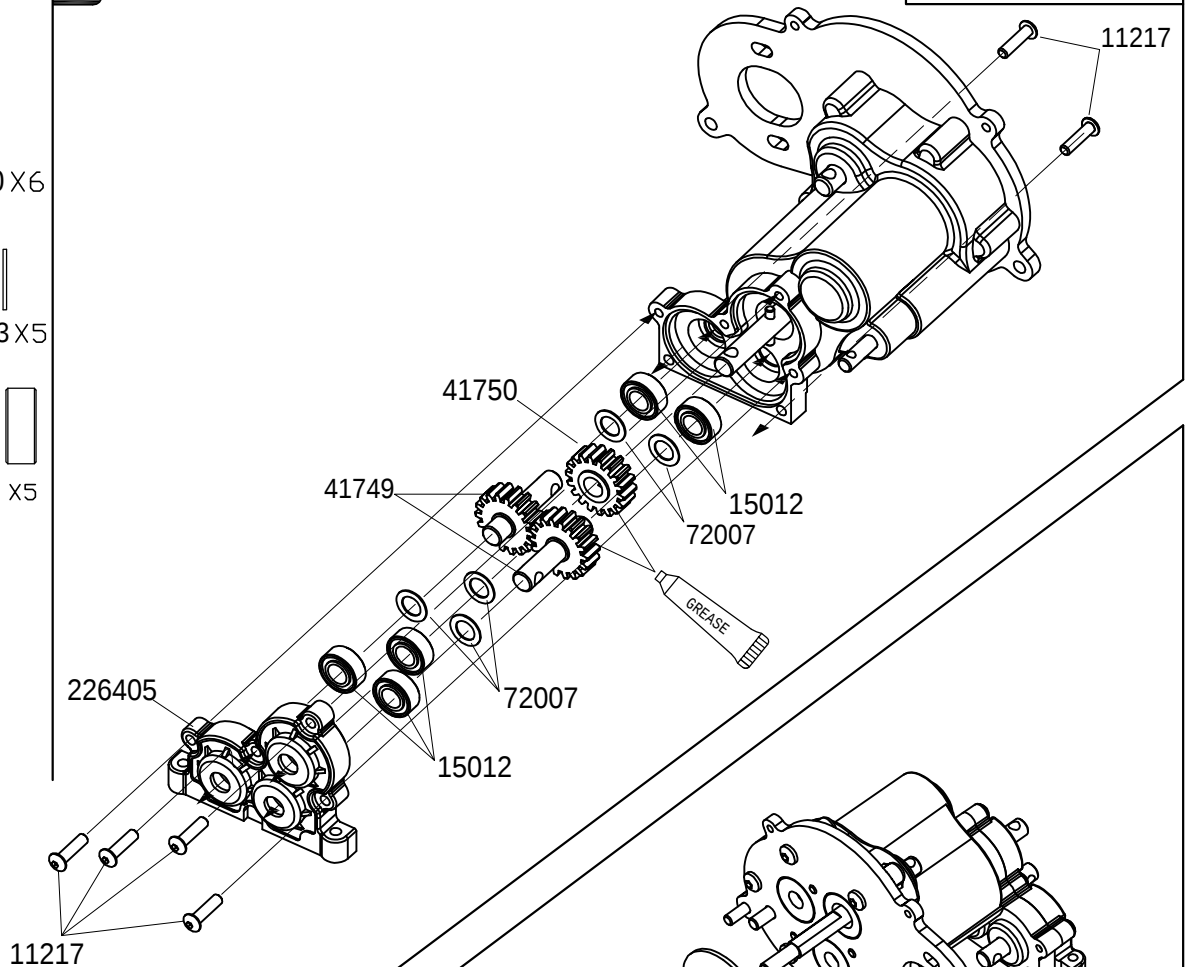
EMOX4

BAG(C)

11217 
M2.5x10 X6

72007 
ø5xø8x0.3 X5

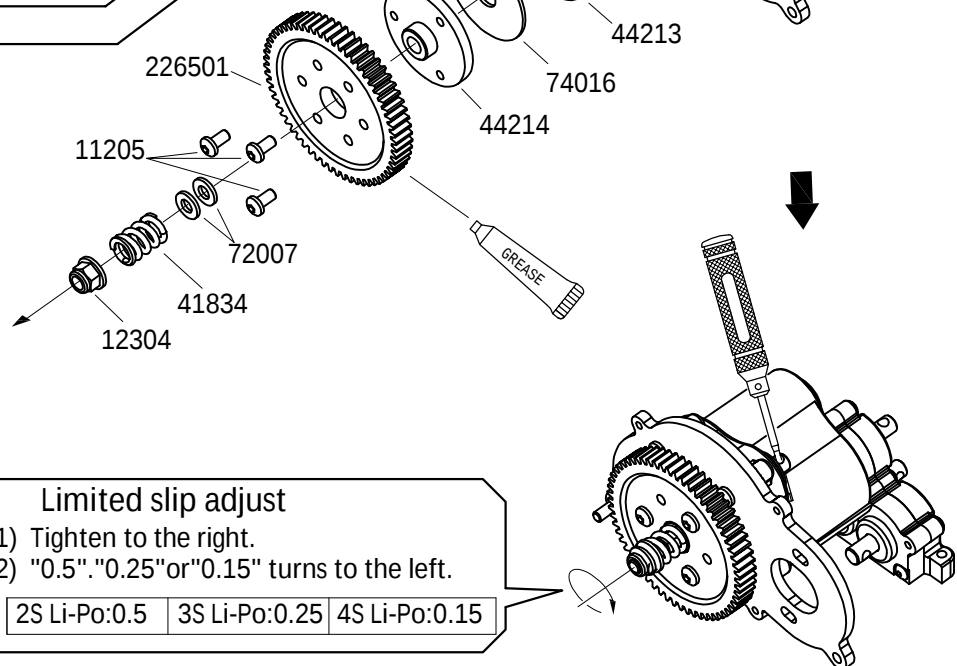
15012 
ø5xø10x4 X5



12304 
M4 X1

72007 
ø5xø8x0.3 X2

11205 
M3x6 X3



Limited slip adjust

- (1) Tighten to the right.
- (2) "0.5"."0.25"or"0.15" turns to the left.

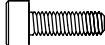
2S Li-Po:0.5	3S Li-Po:0.25	4S Li-Po:0.15
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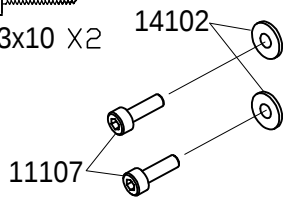
EMOX4

BAG(C)

11405 
M4x4 X1

14102 
Ø3xØ7x0.5 X2

11107 
M3x10 X2



11331 
M4x10 X2

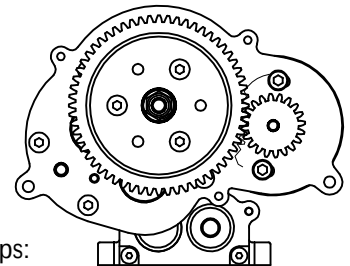
41800

44314

11331

91246
10652

11405

THREAD
LOCK

Tips:
Tighten the screws with one sheet of paper inserted between both gears.

Final reduction ratio

Motor gear	16T	17T	18T	19T	20T	21T
Fast	22.1	20.8	19.6	18.6	17.8	17
Slow	48.3	45.4	42.9	40.6	38.9	37

EMOX4

11207 
M3x10 X2

11216 
M2.5x6 X3

11207

226401

11216

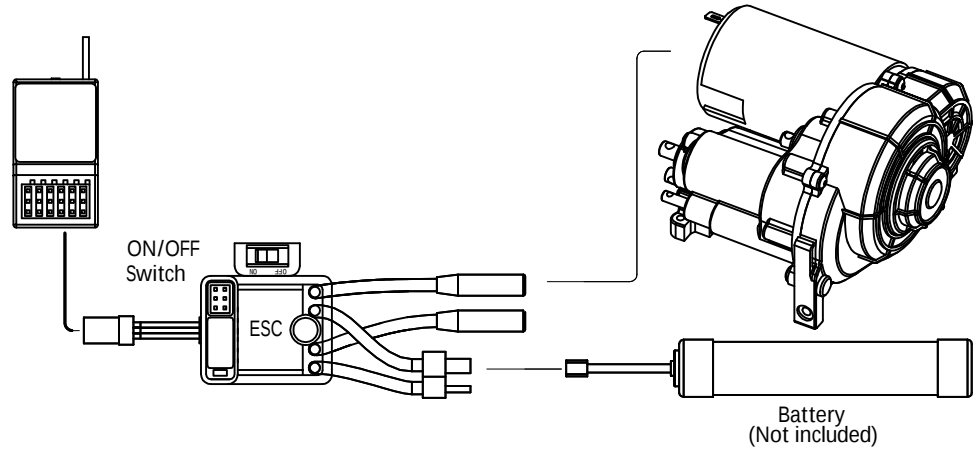
226402

LOCK

EMOX4

Tips:

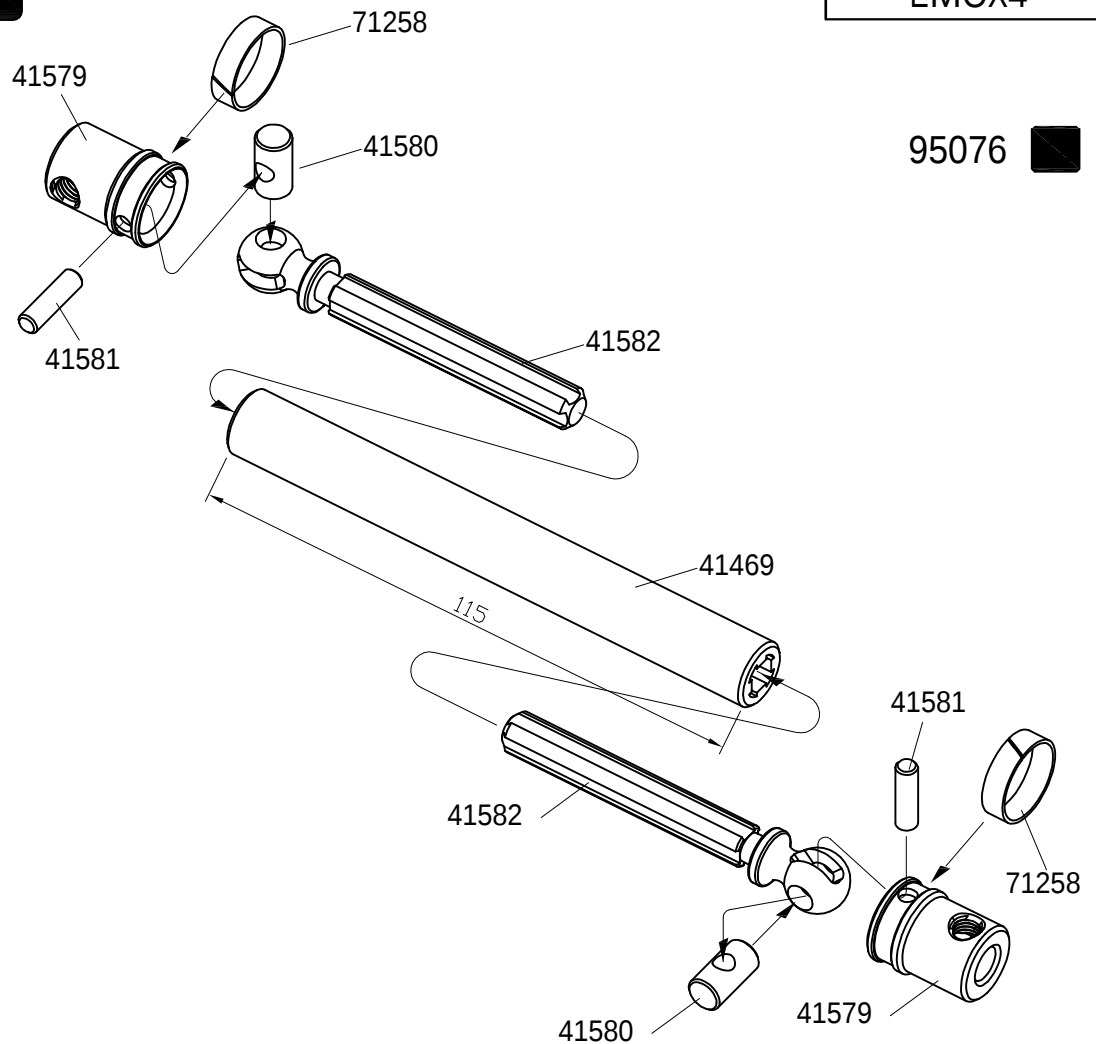
Test the gear mesh by connecting the ESC to the motor/gearbox assembly. If the gearbox is not operating smoothly or is creating excess noise, check the gear mesh prior to proceeding to the next step.



BAG(H)

EMOX4

95076

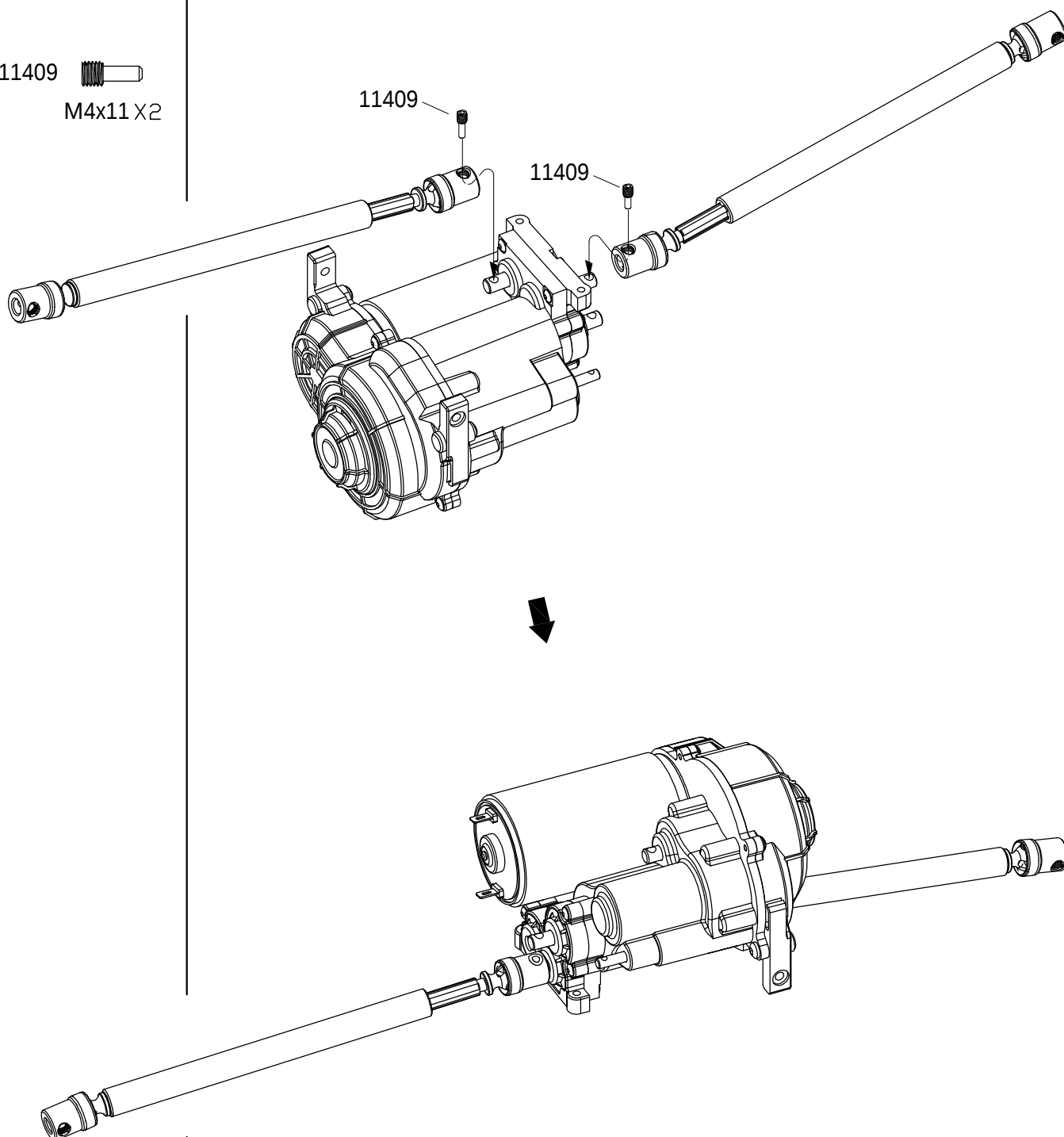


BAG(HH)

11409 
M4x11 X2

11409

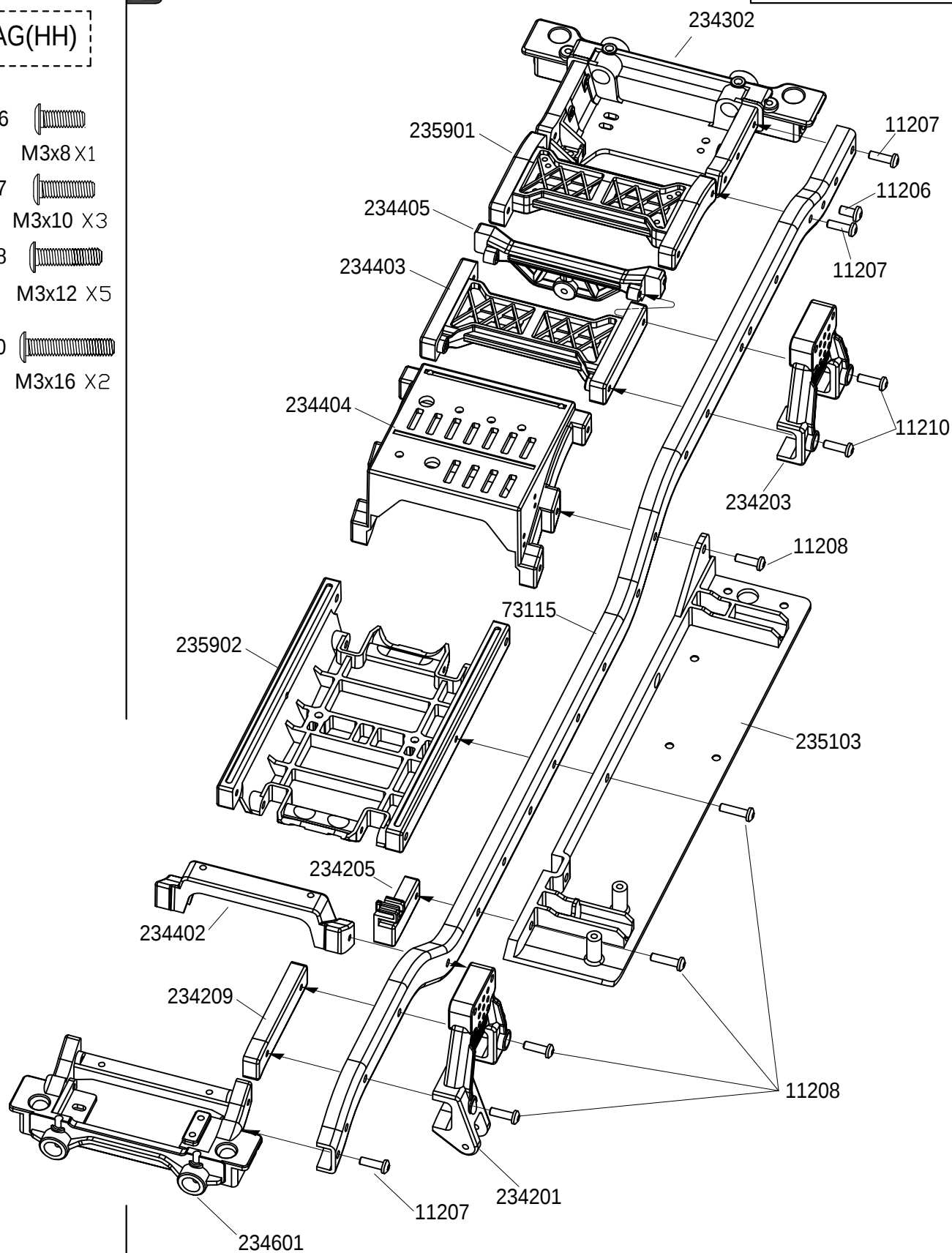
11409



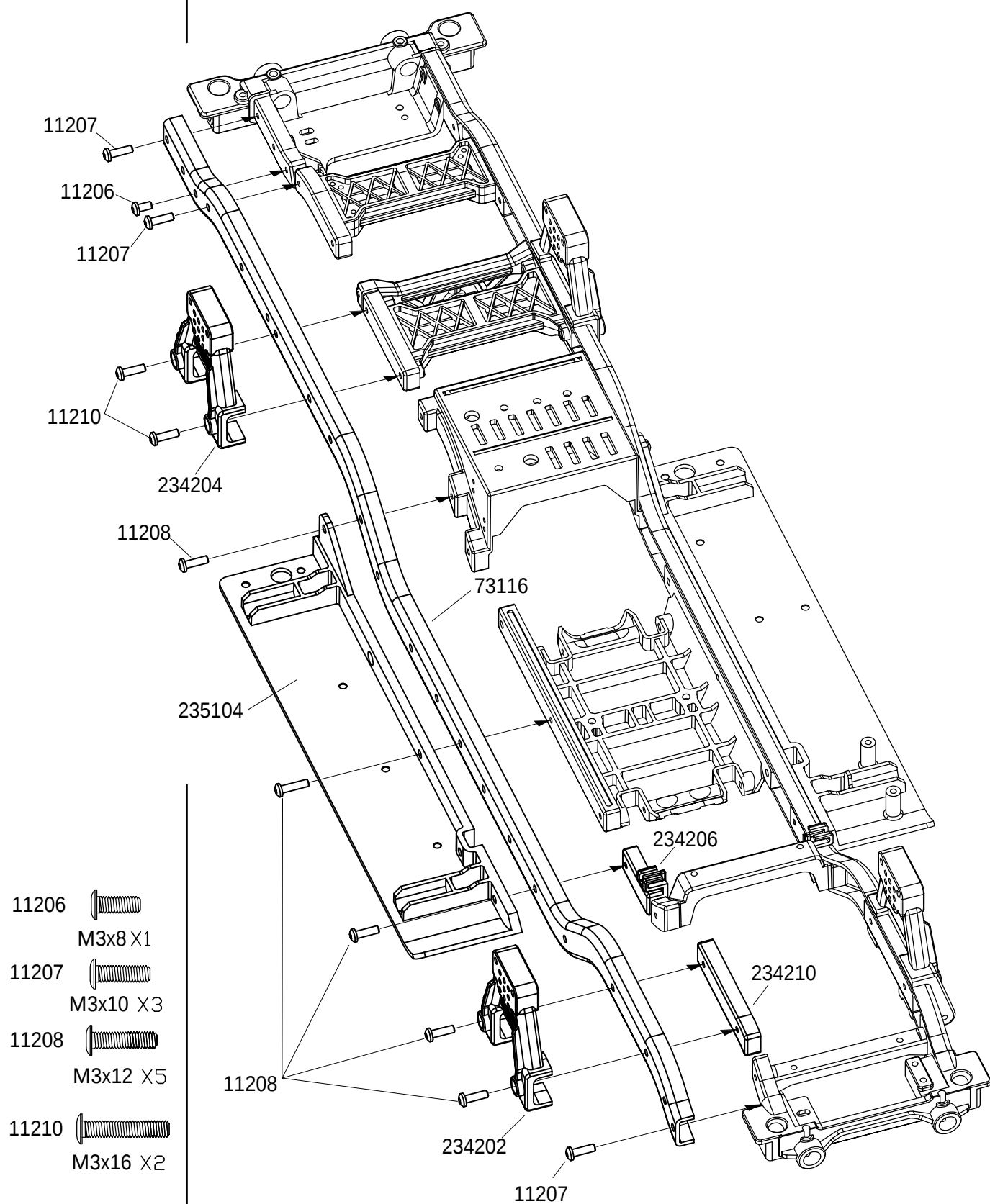
EMOX4

BAG(HH)

- 11206 
M3x8 X1
- 11207 
M3x10 X3
- 11208 
M3x12 X5
- 11210 
M3x16 X2



BAG(HH)

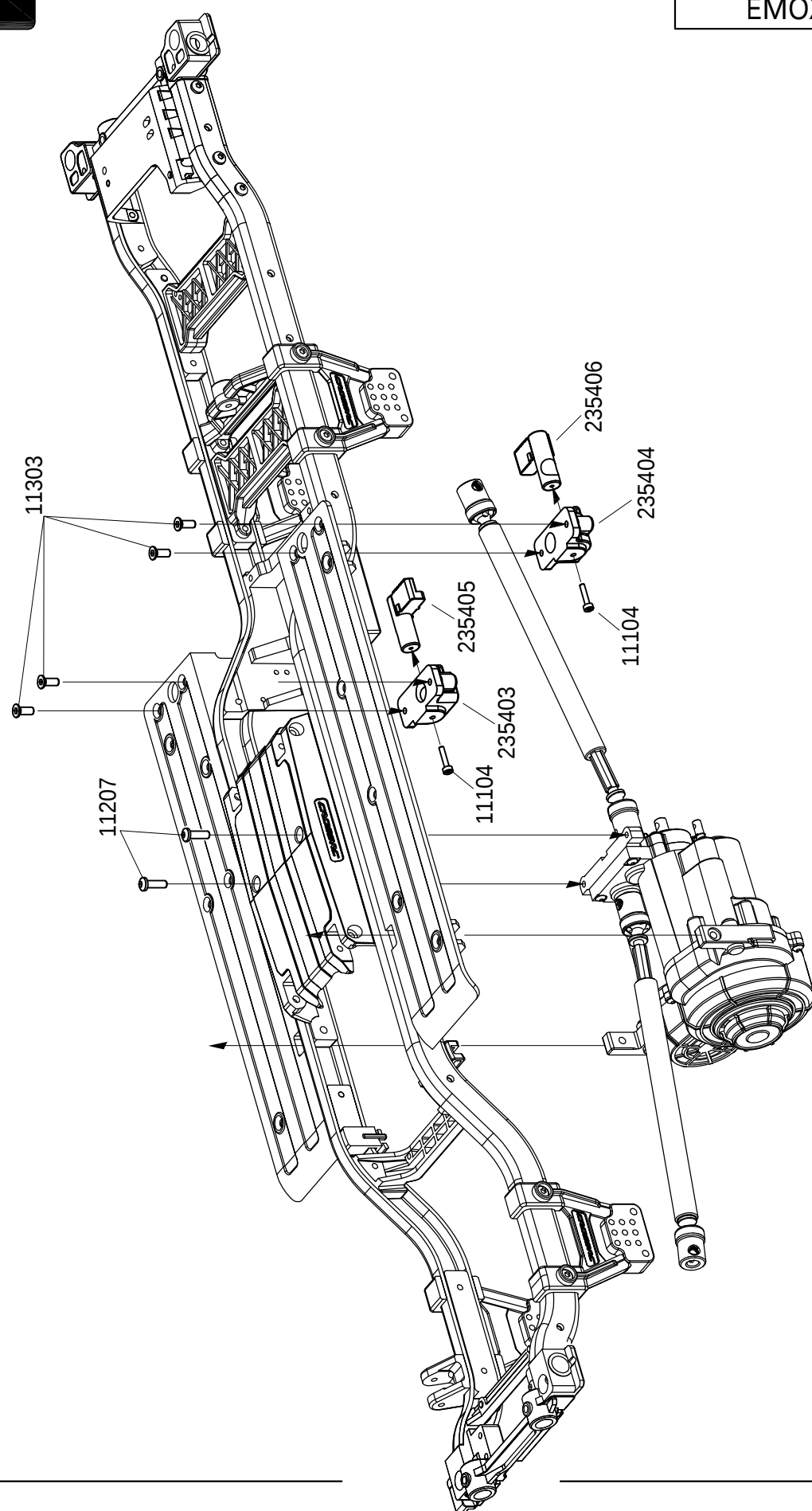


BAG(HH)

11207 
M3x10 X2

11303 
M3x8 X4

11104 
M2x10 X2



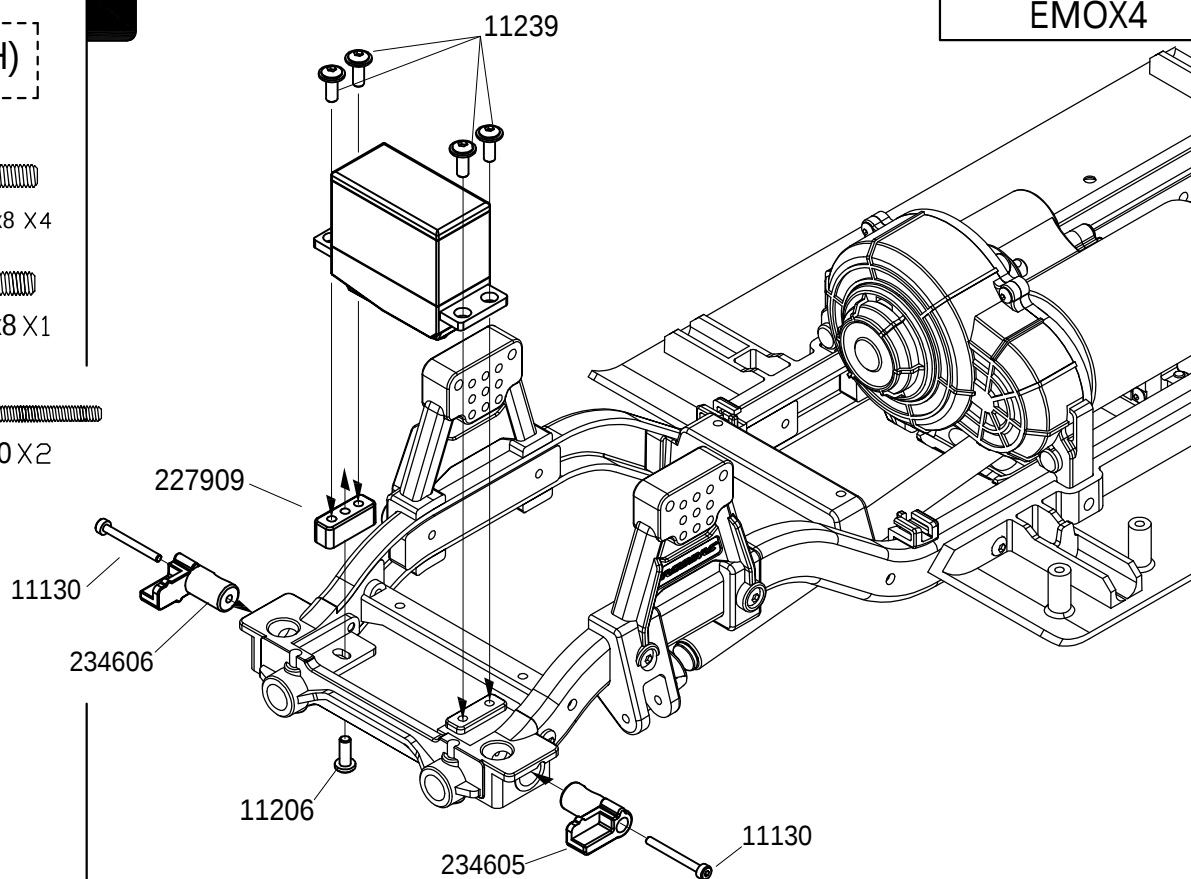
EMOX4

BAG(HH)

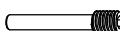
11239  M3x8 X4

11206  M3x8 X1

11130  M2x20 X2



EMOX4

 42209 X2

11206  M3x8 X2

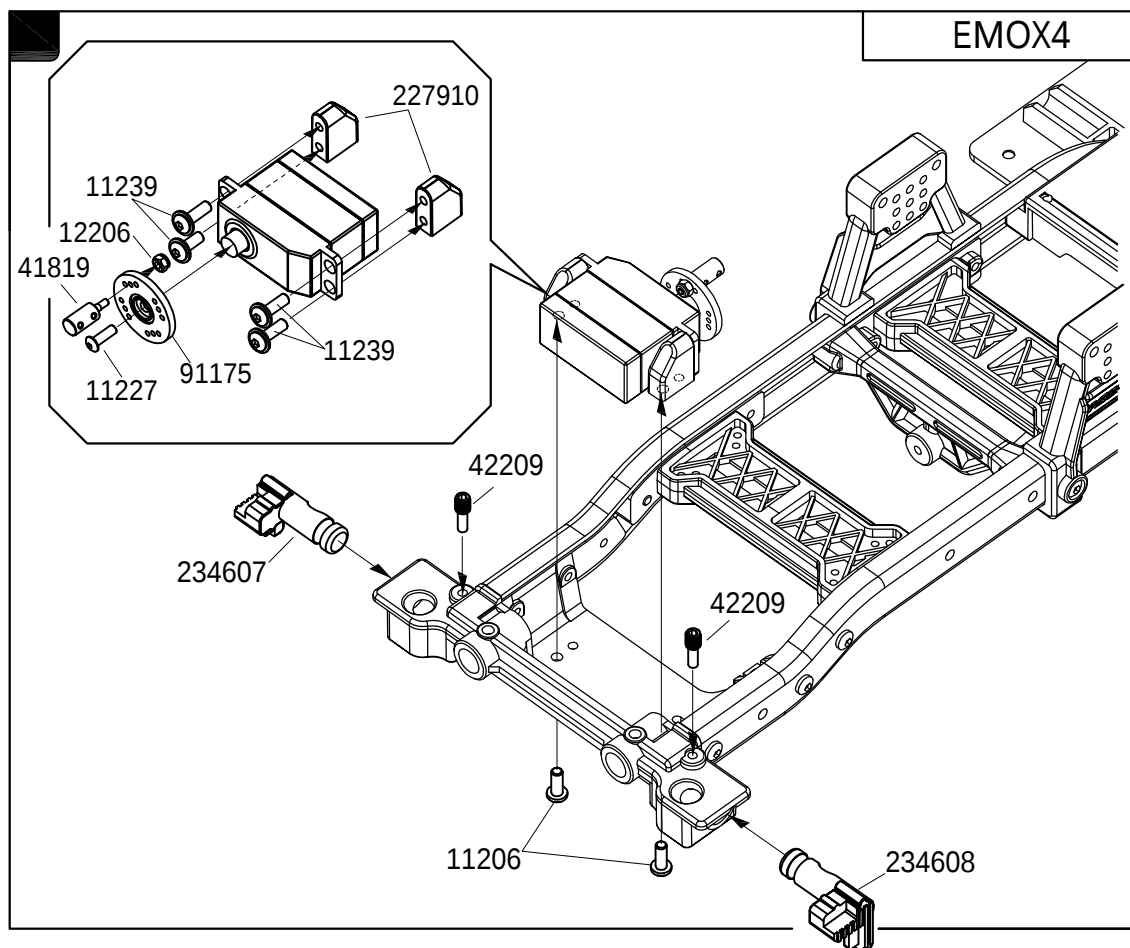
11239  M3x8 X4

BAG(II)

11227  M2.5x8 X1

12206  M2 X1

 41819 X1

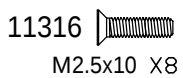
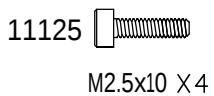
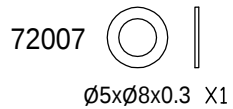
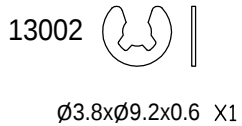
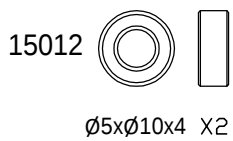
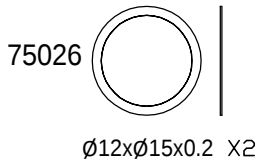
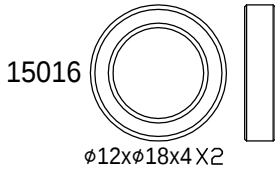
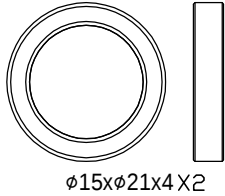


BAG(D)

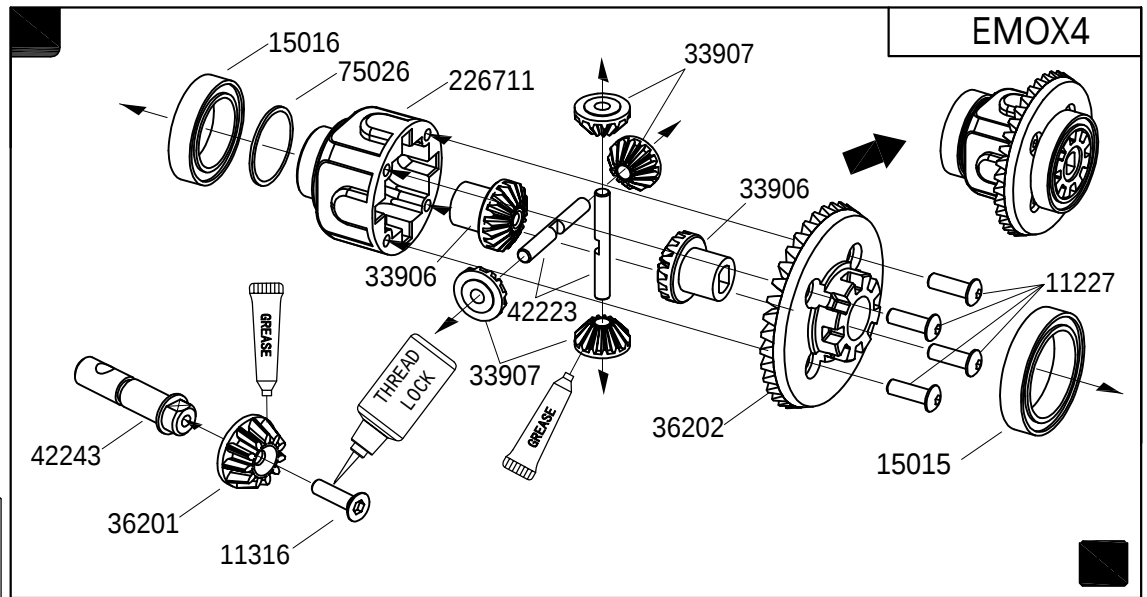
11316  M2.5x10 X2

11227  M2.5x8 X8

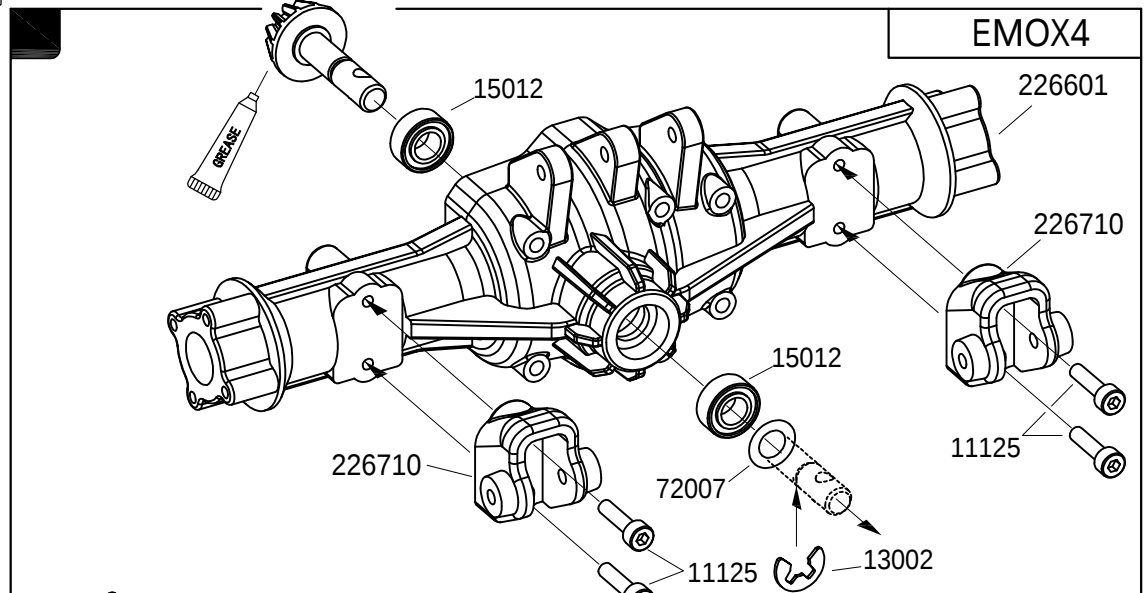
15015



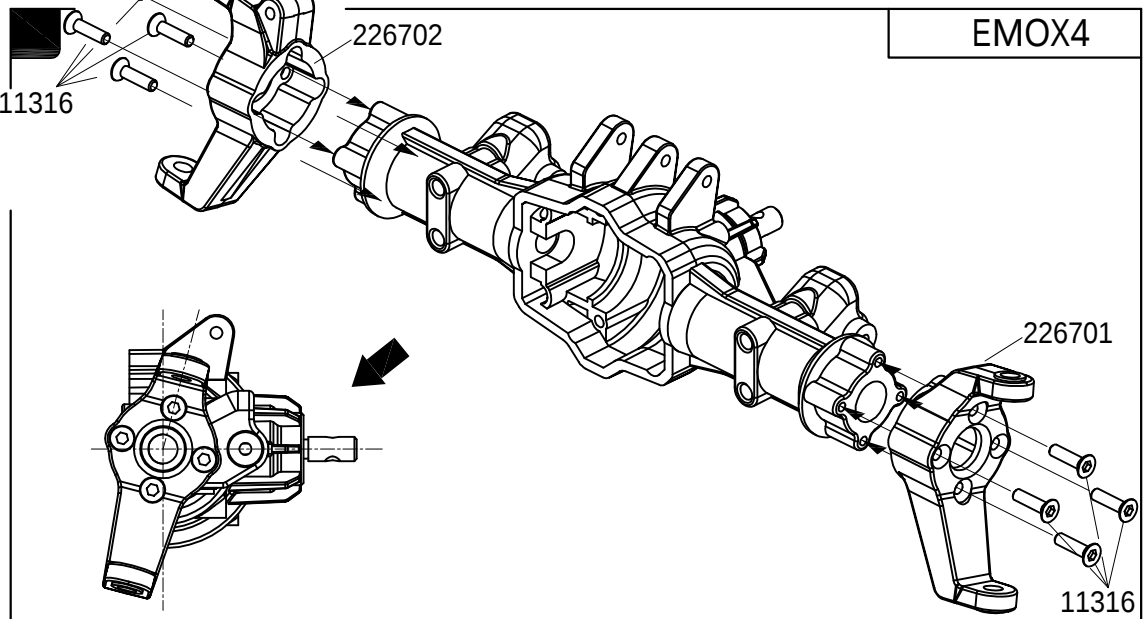
EMOX4



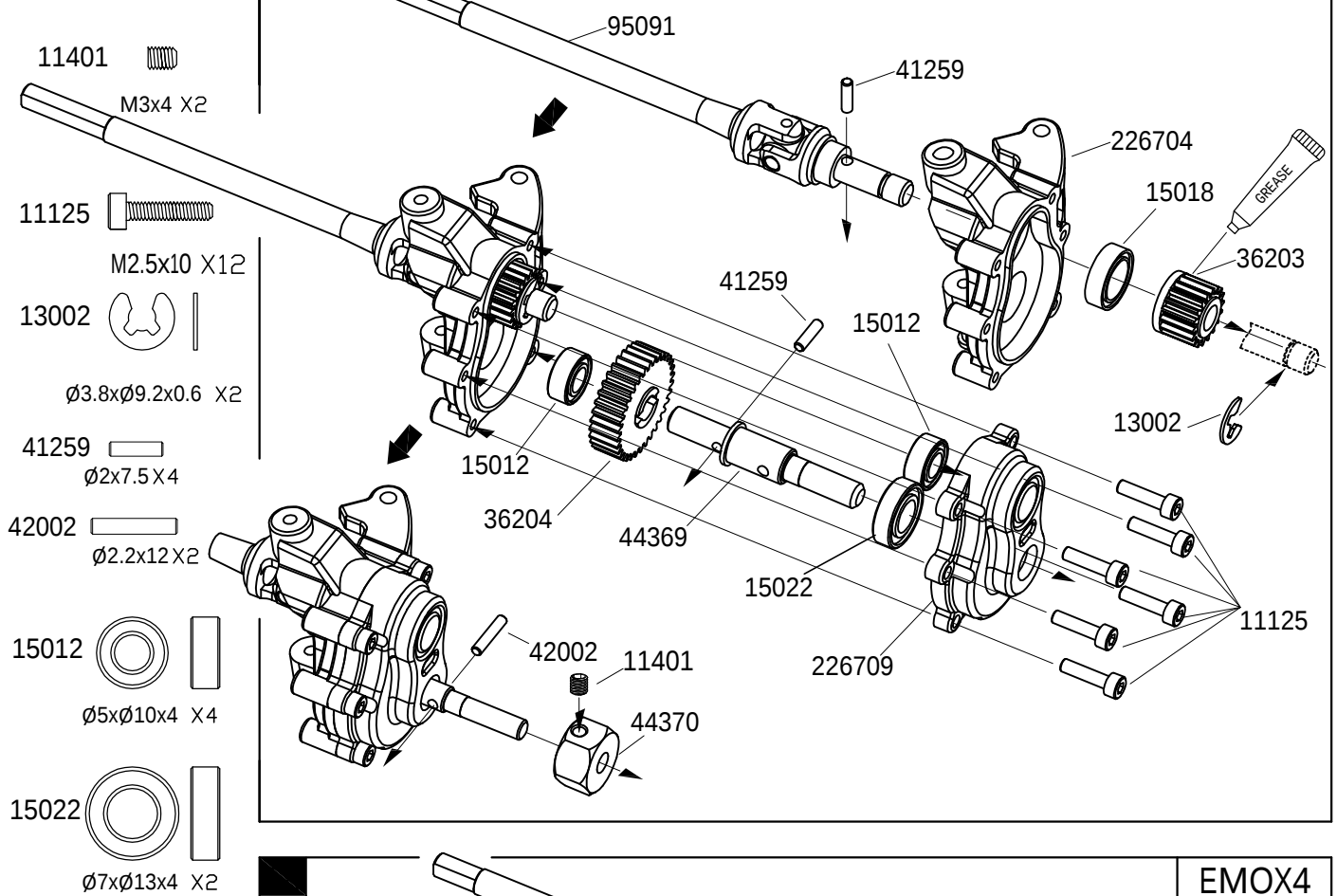
EMOX4



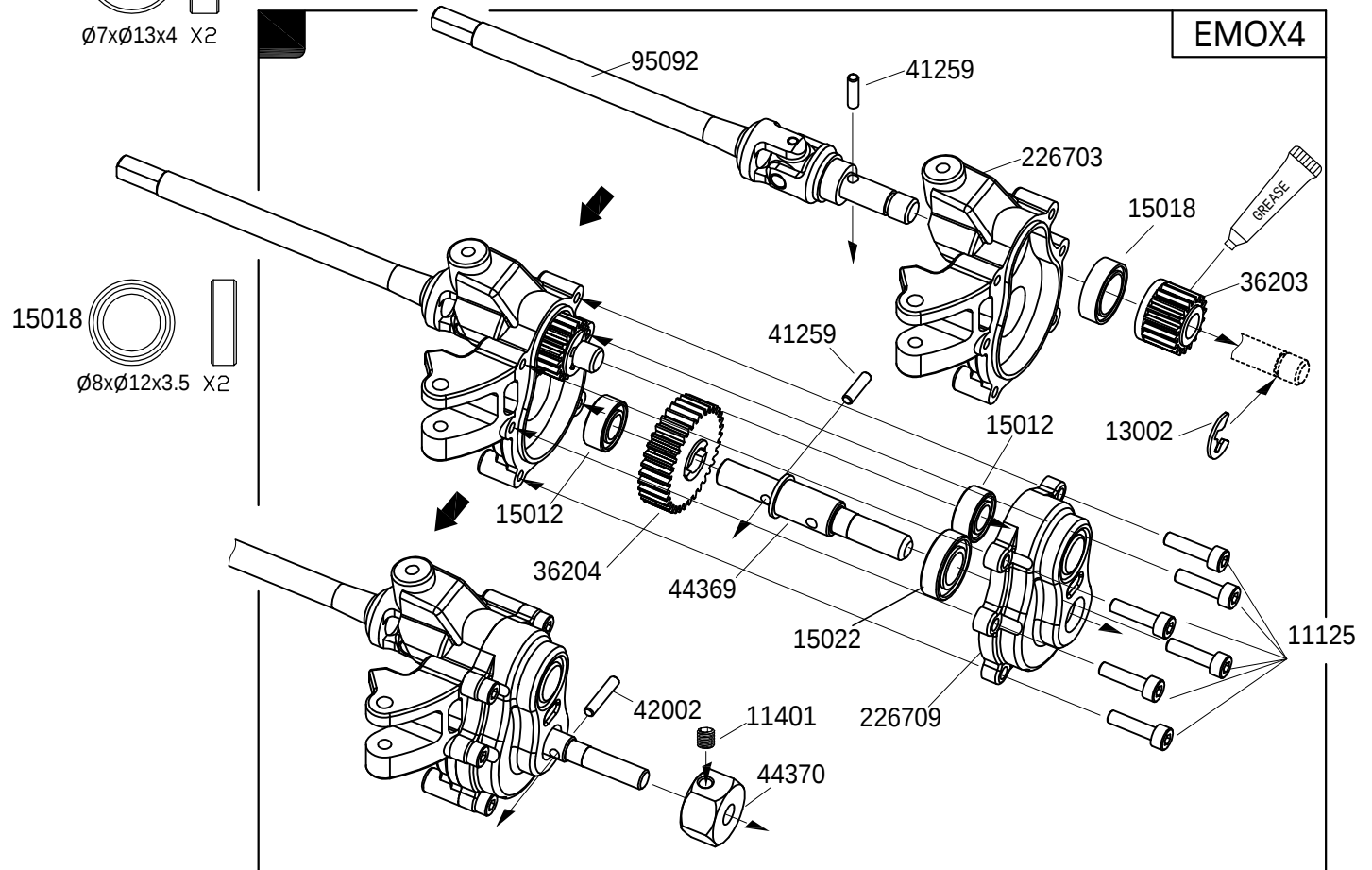
EMOX4



EMOX4

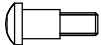


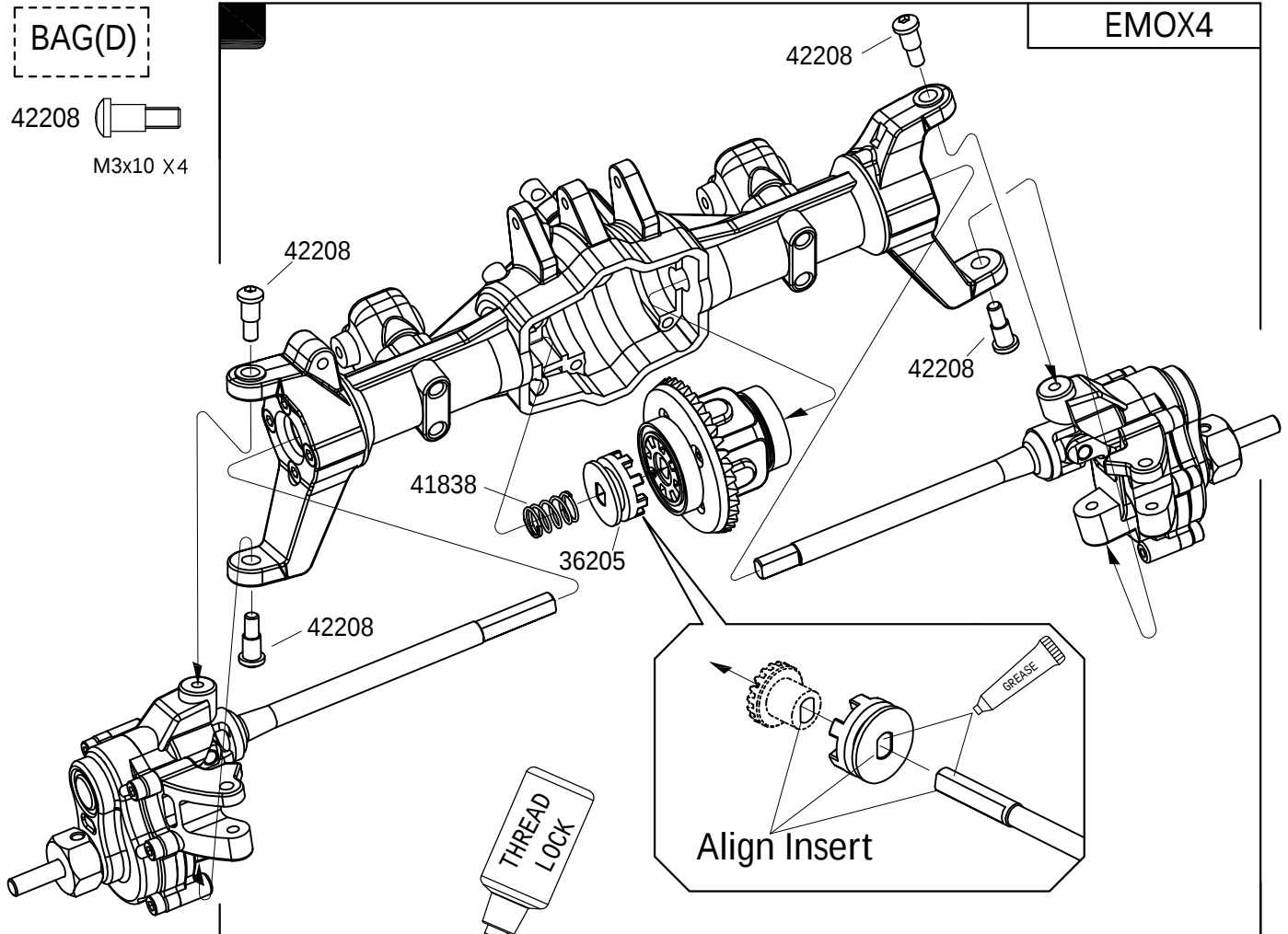
EMOX4



EMOX4

BAG(D)

42208 
M3x10 X4

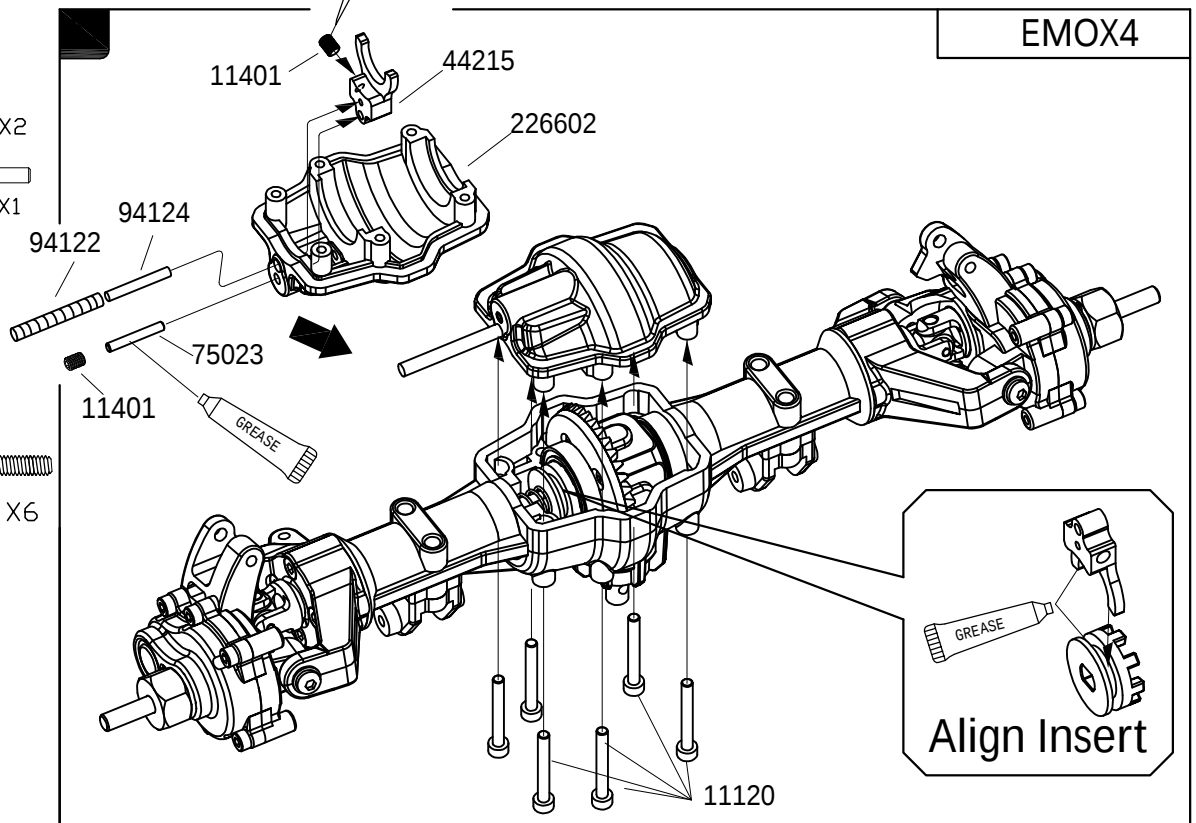


EMOX4

11401 
M3x4 X2

75023 
Ø2x14 X1

11120 
M2.5x20 X6



EMOX4

BAG(D)



15012
Ø5xØ10x4 X2



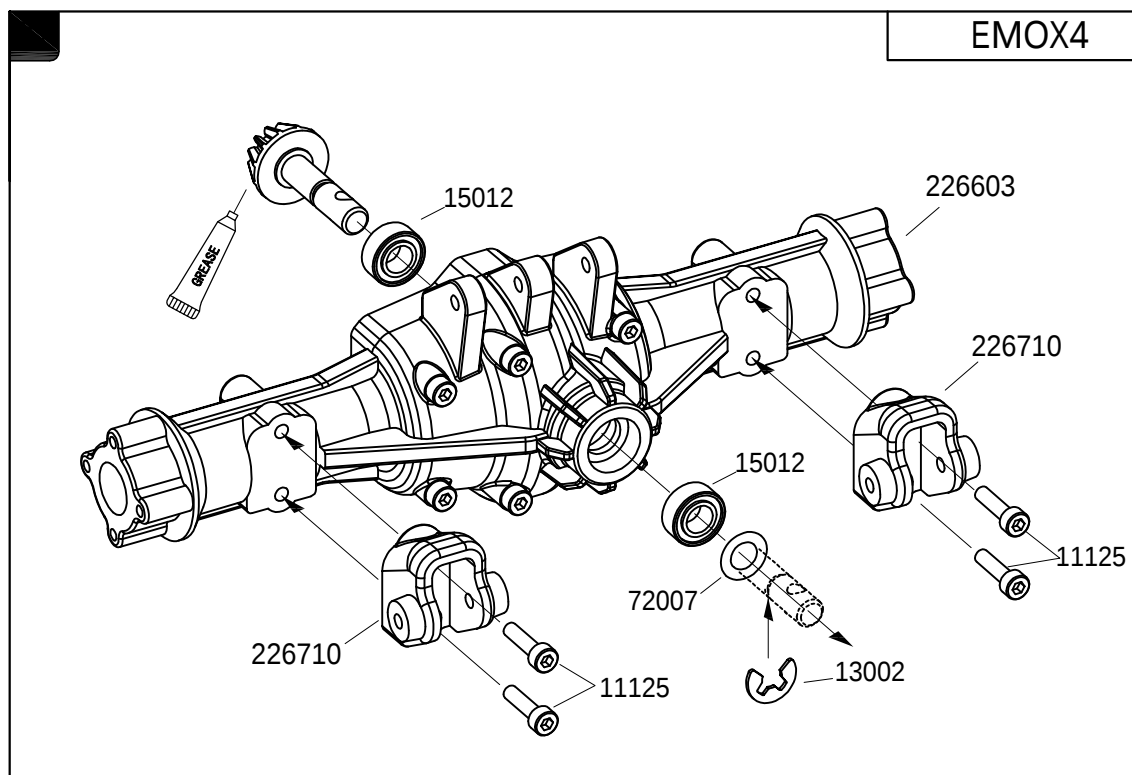
13002
Ø3.8xØ9.2x0.6 X1



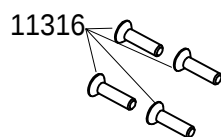
72007
Ø5xØ8x0.3 X1



11125
M2.5x10 X4

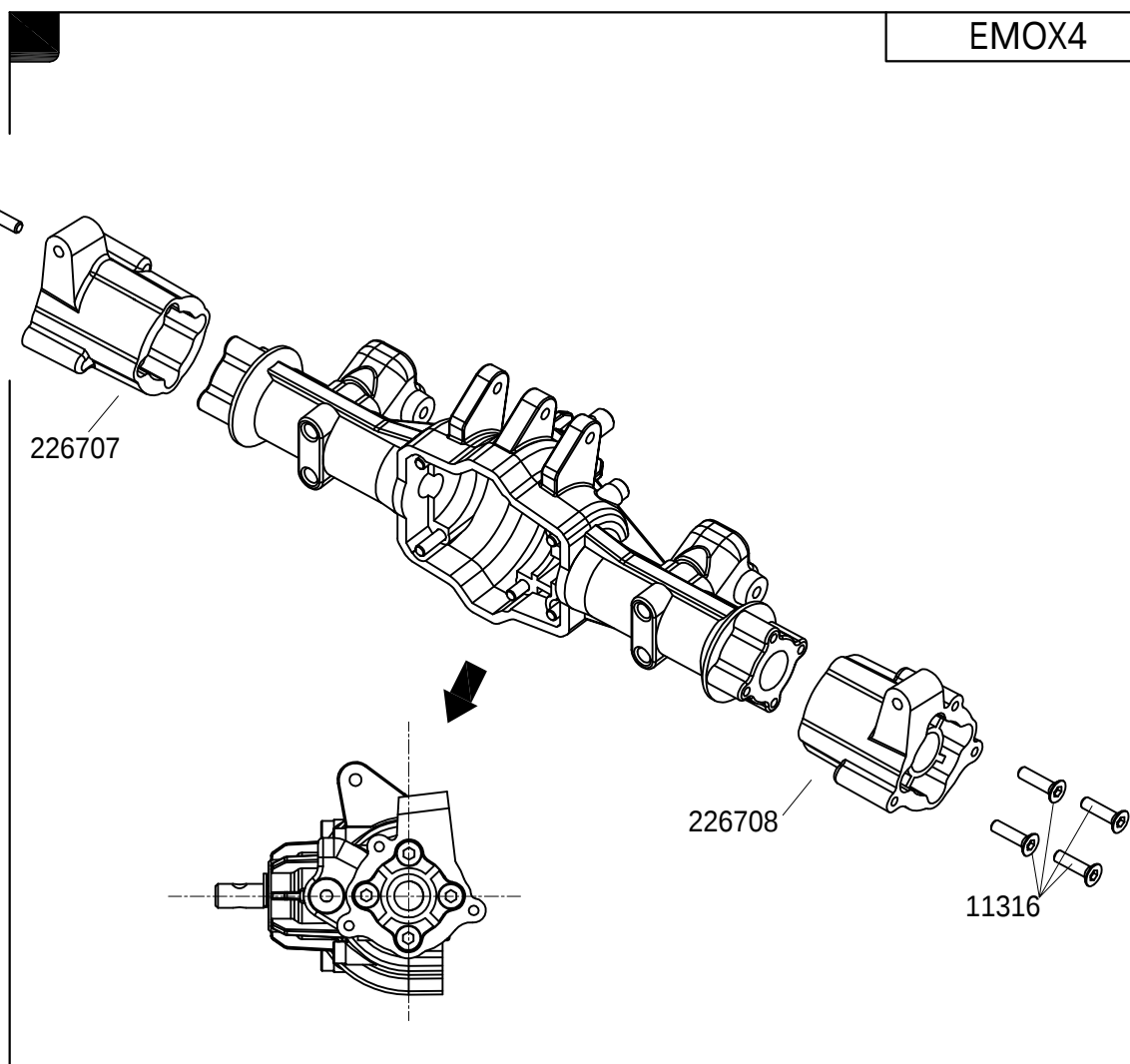


EMOX4

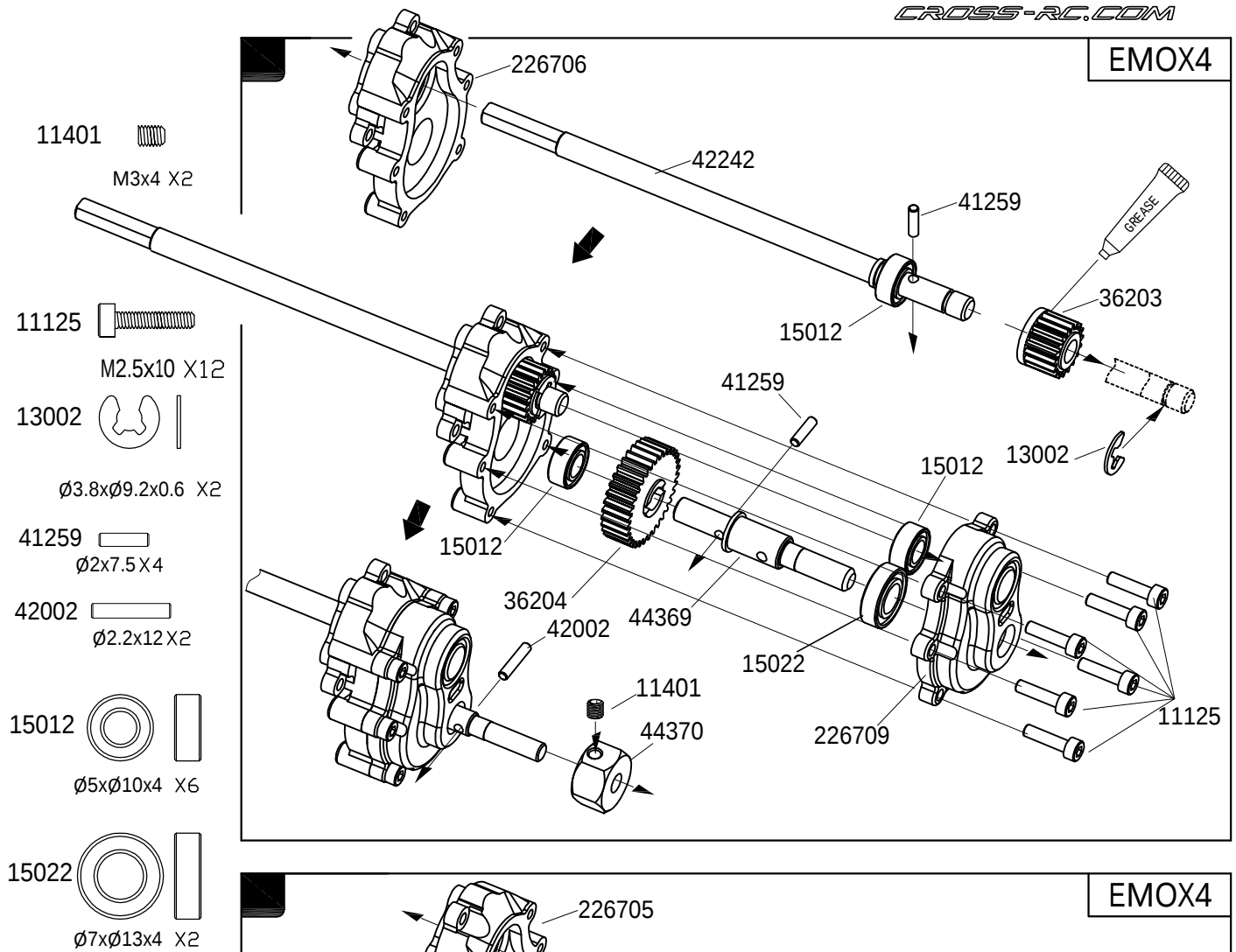


11316
M2.5x10 X8

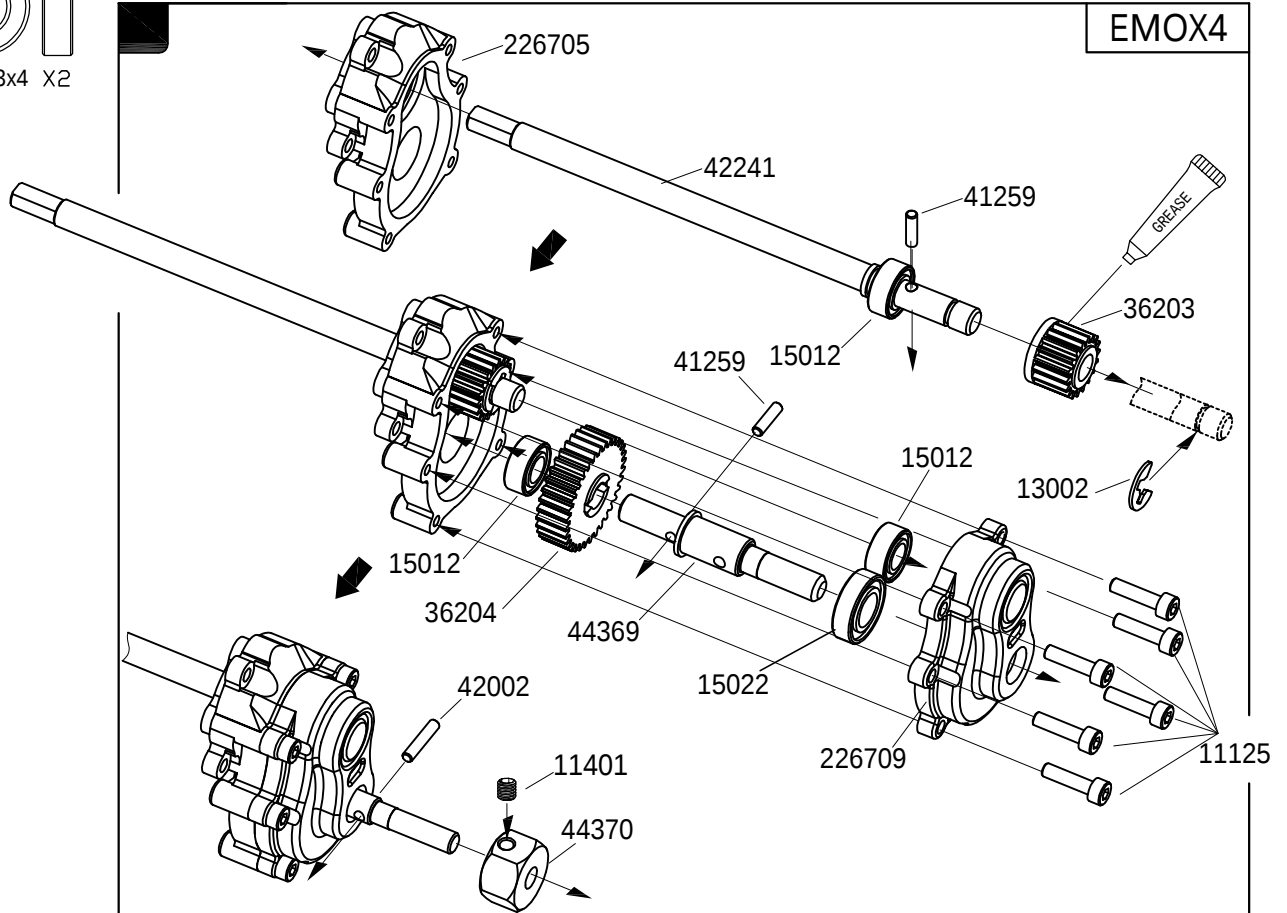
11316
M2.5x10 X8



EMOX4



EMOX4

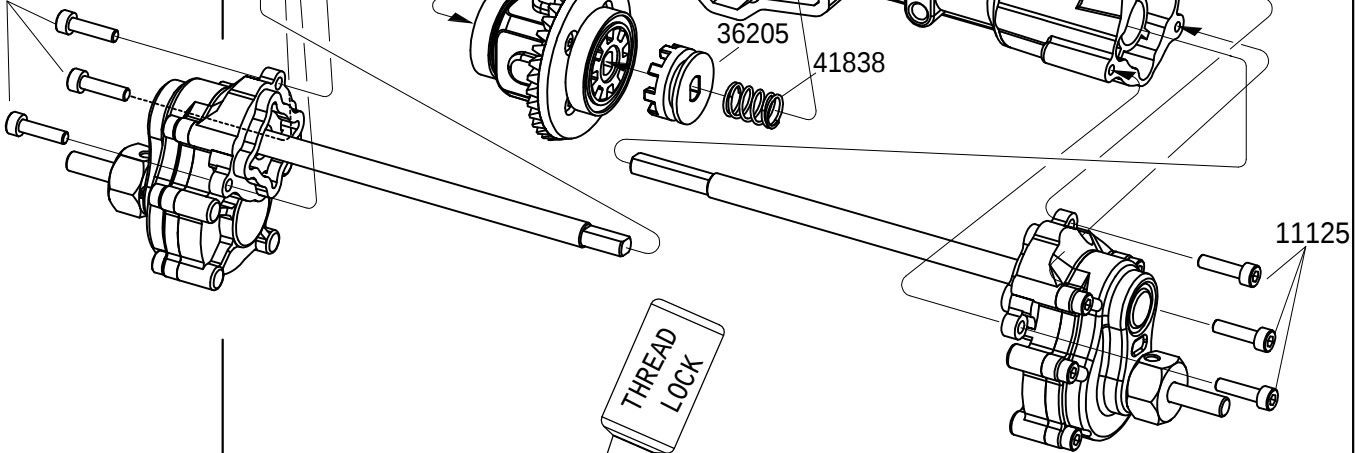


EMOX4

BAG(D)

11125  M2.5x10 X6

11125



EMOX4

11401

44215

226602

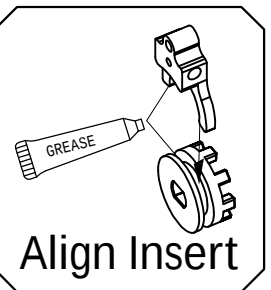
94123

94125

11401

75023

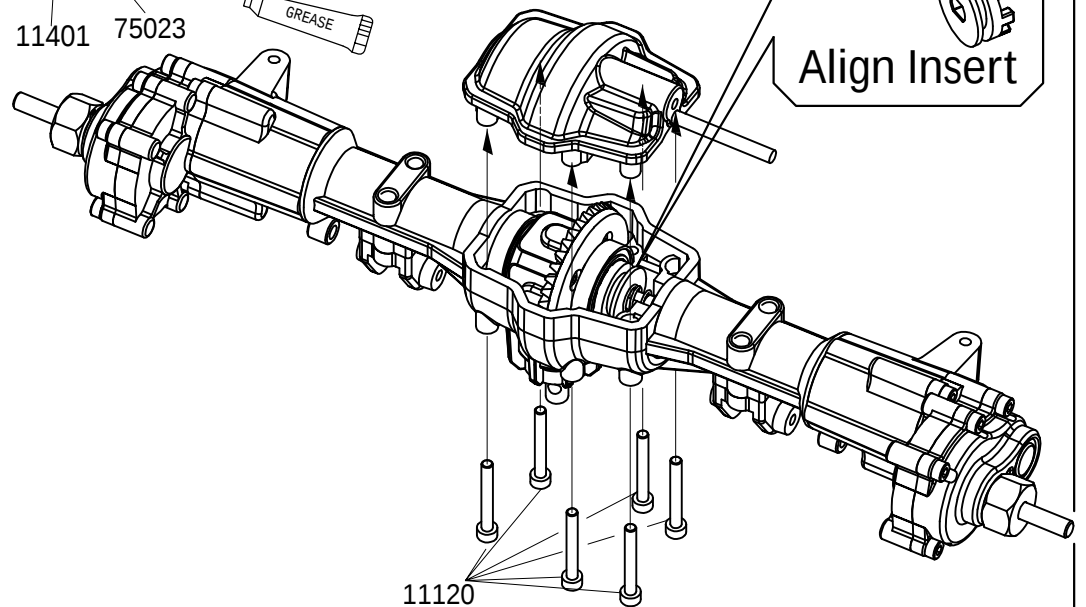
GREASE



11401  M3x4 X2

75023  Ø2x14 X1

11120  M2.5x20 X6



EMOX4

BAG(F)

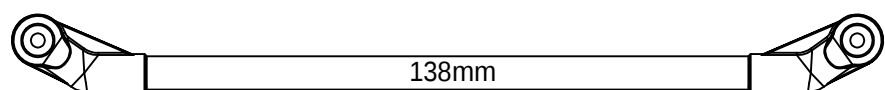
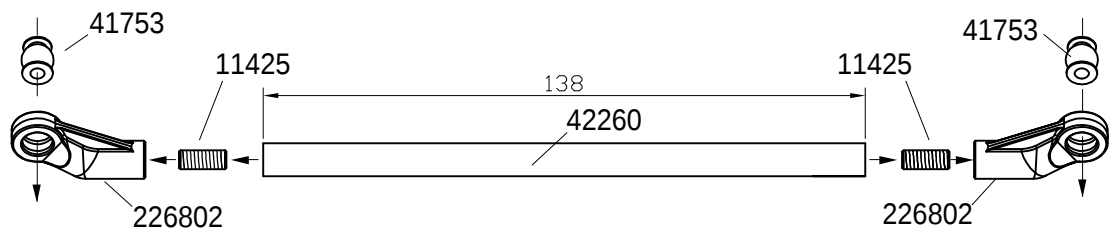
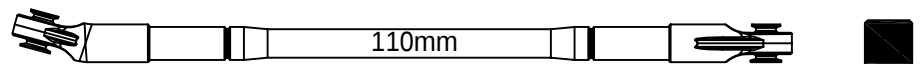
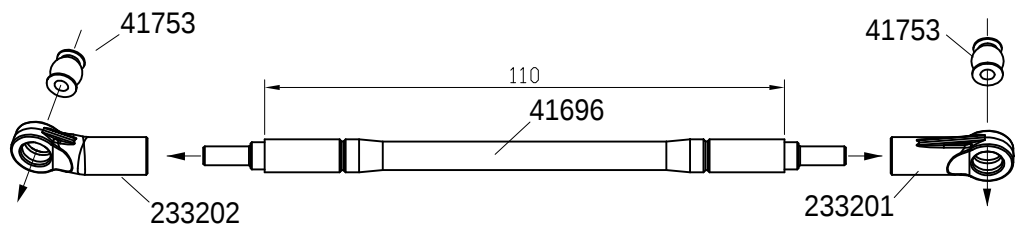
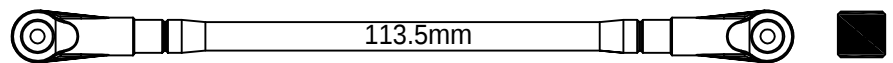
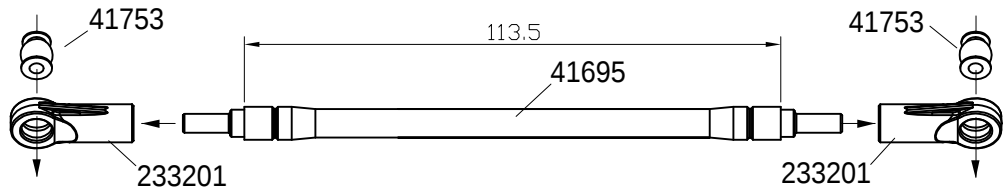
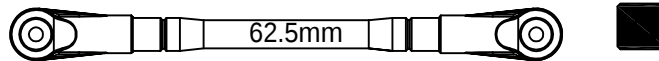
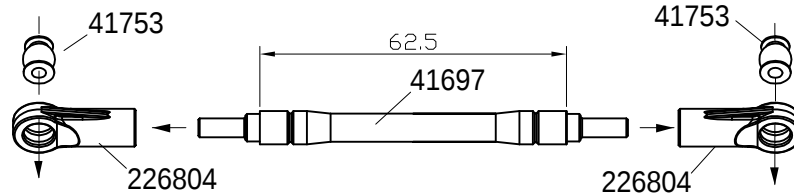
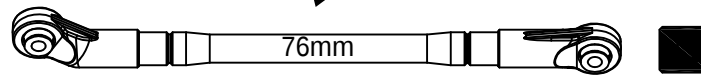
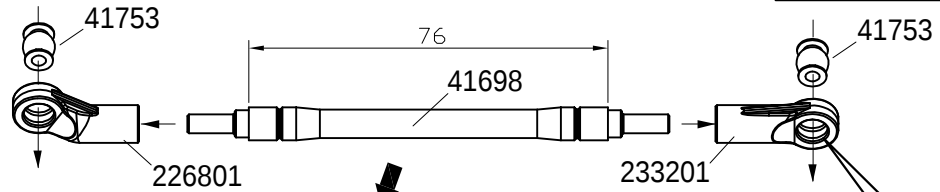
BAG(G)



41753 X20

11425 

M4x20 X2



Small

EMOX4

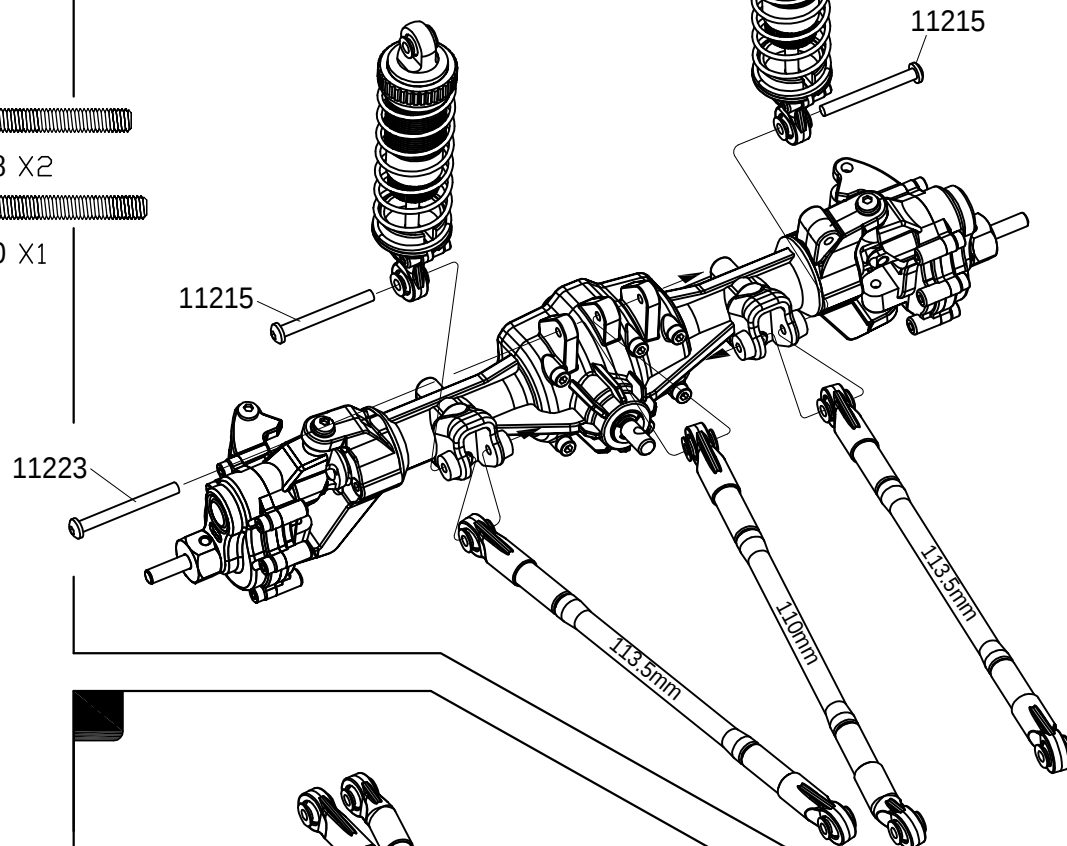
BAG(HH)

11215 

M3x28 X2

11223 

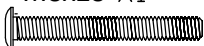
M3x30 X1

11210 

M3x16 X1

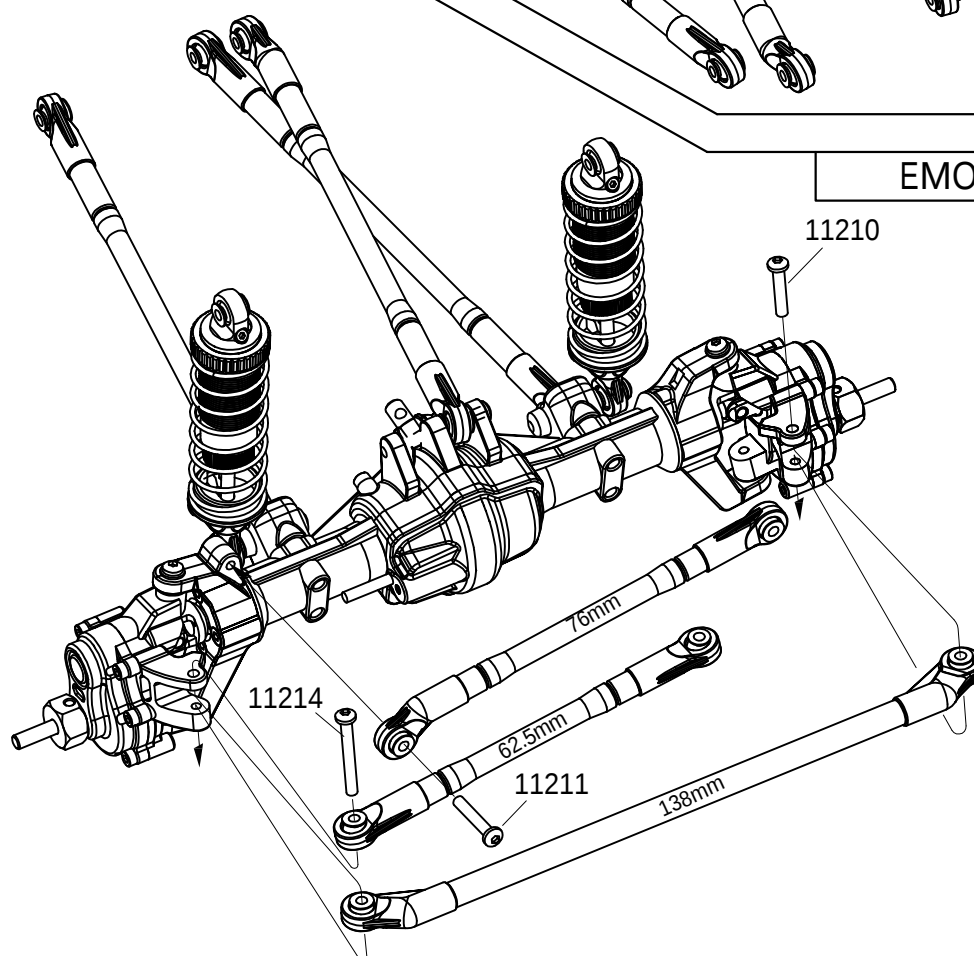
11211 

M3x18 X1

11214 

M3x25 X1

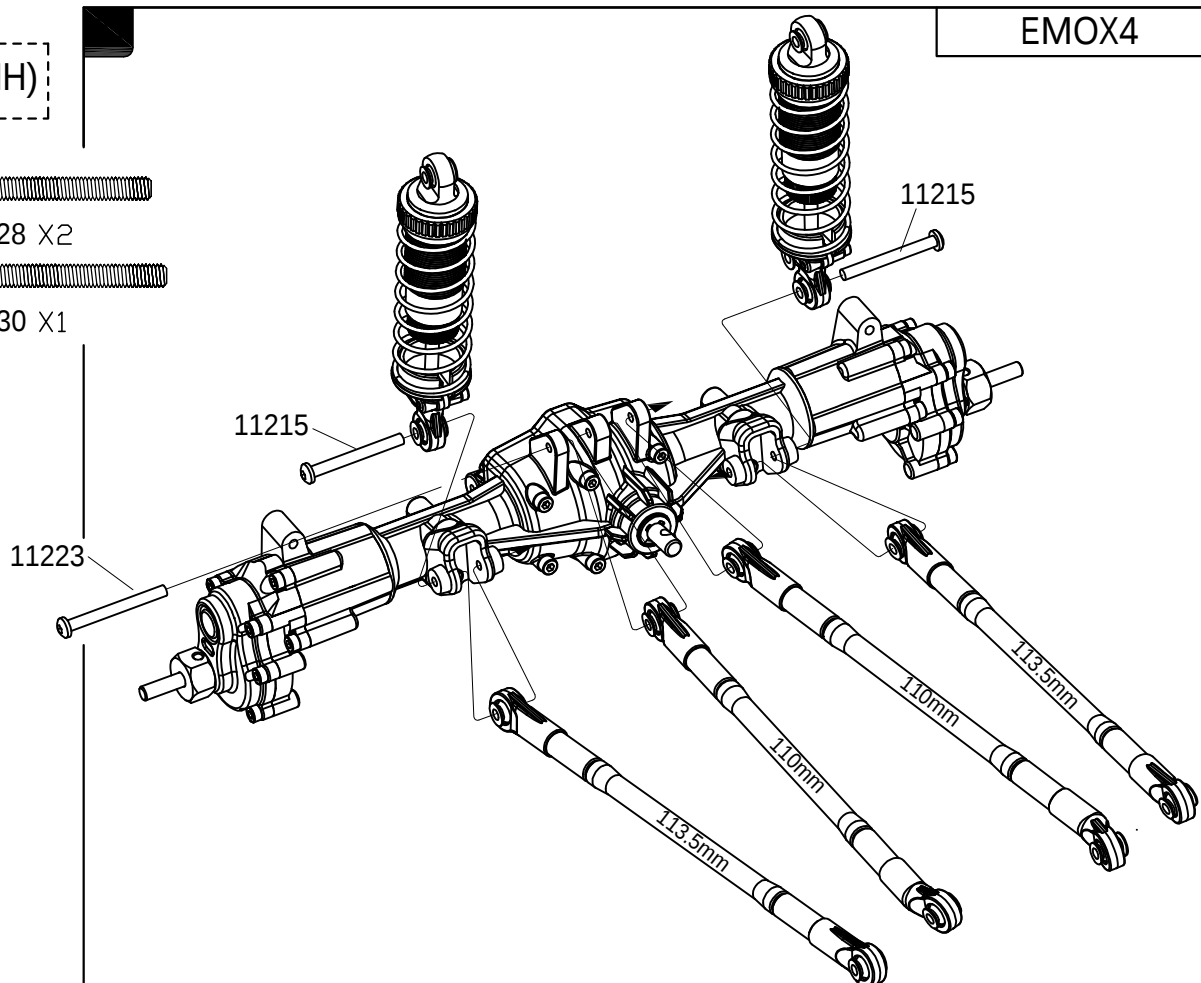
EMOX4



EMOX4

BAG(HH)

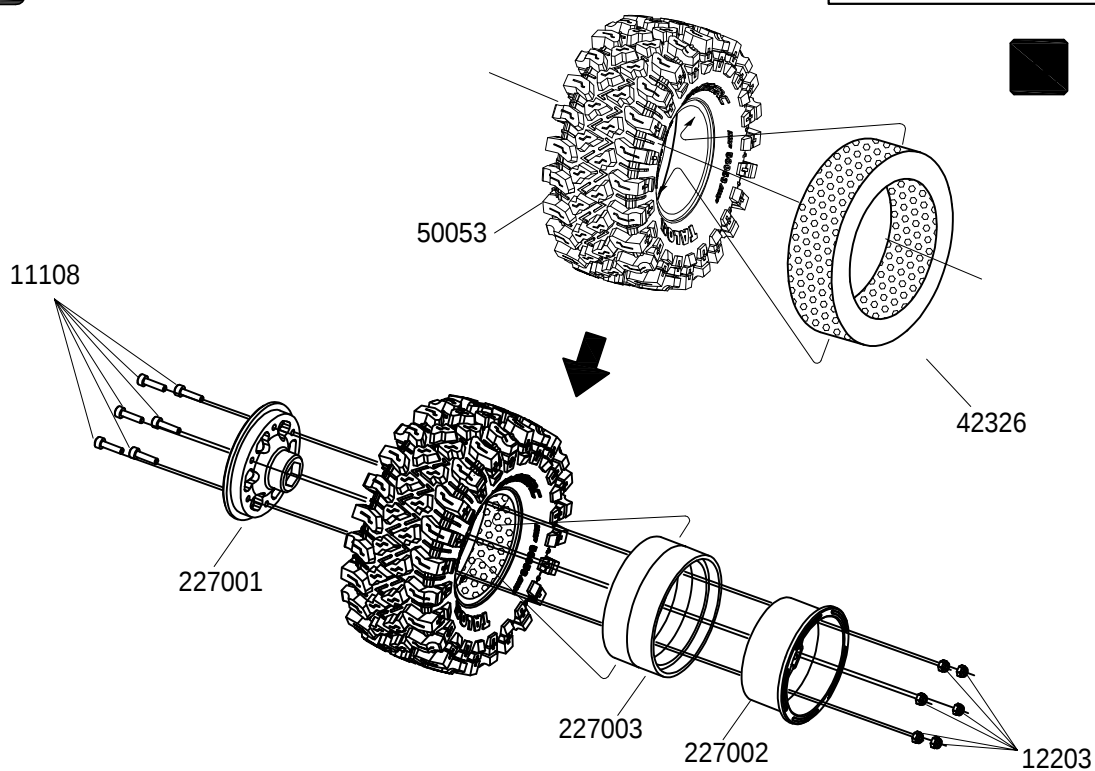
- 11215  M3x28 X2
- 11223  M3x30 X1



EMOX4

BAG(A)

- 11108  M3x12 X24
- 12203   M3 X24



BAG(HH)

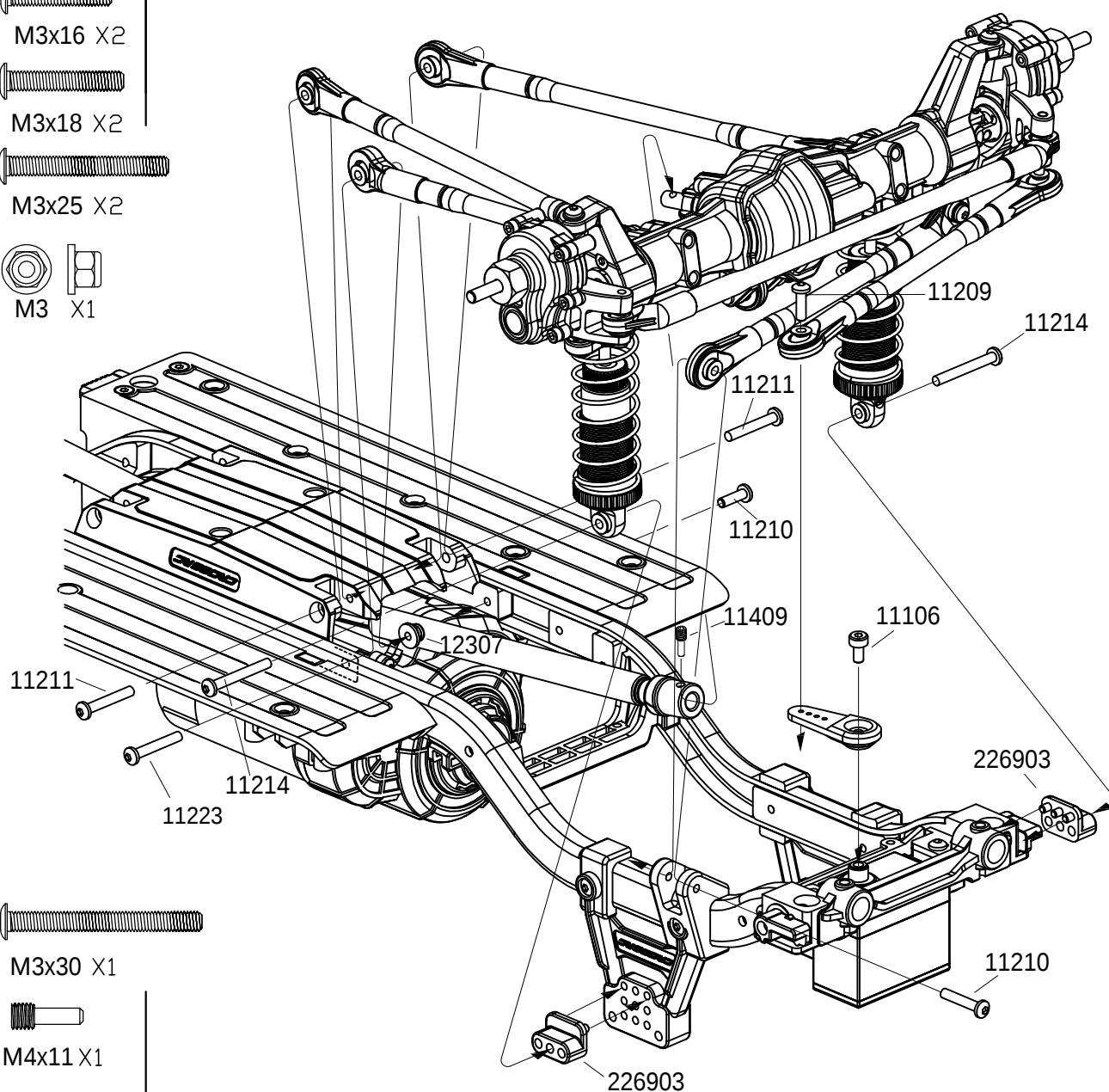
11106 
M3x8 X1

11210 
M3x16 X2

11211 
M3x18 X2

11214 
M3x25 X2

12307  
M3 X1



11223 
M3x30 X1

11409 
M4x11 X1

11209 
M3x14 X1

BAG(HH)

11211 

M3x18 X2

11213 

M3x22 X2

11214 

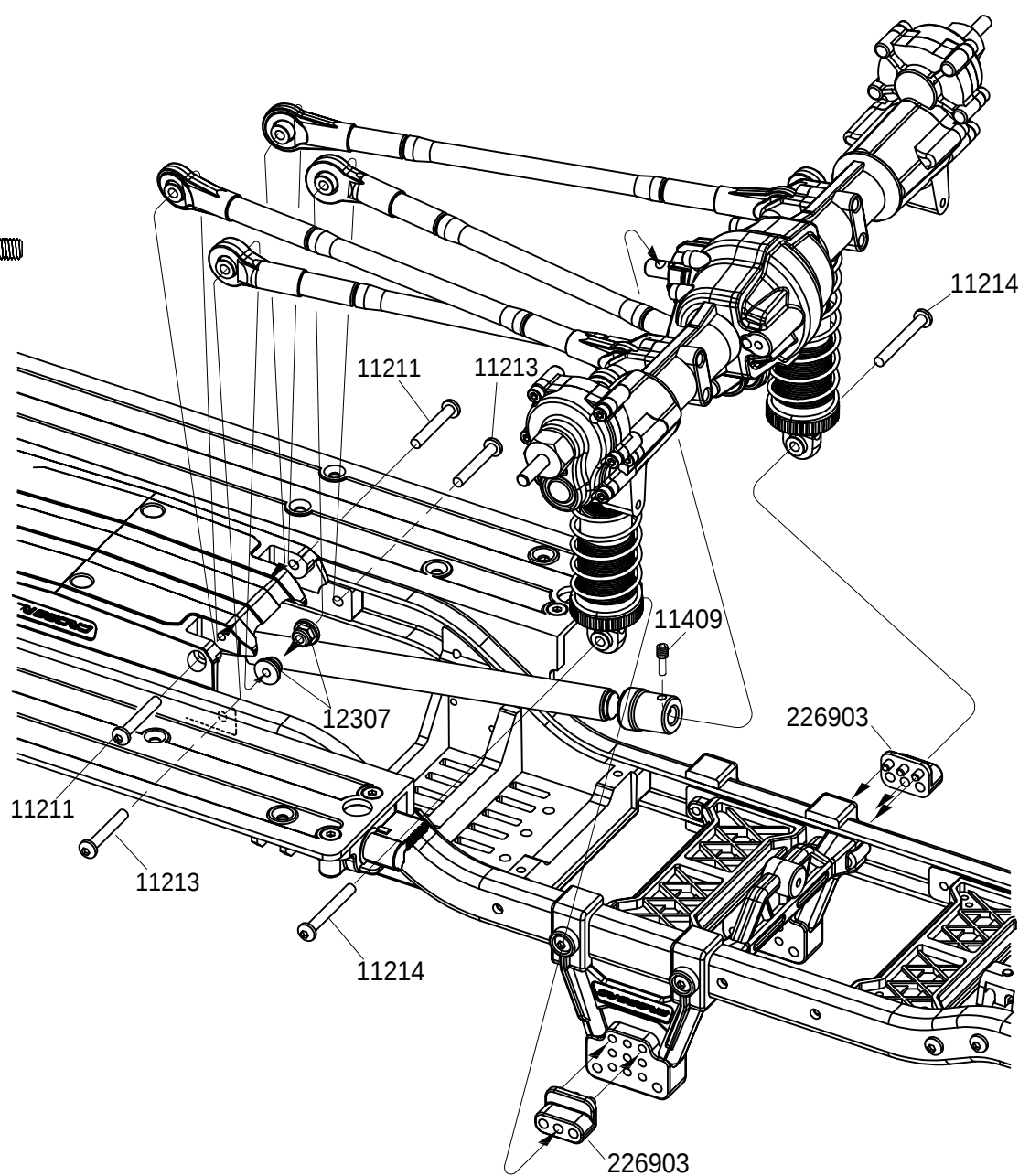
M3x25 X2

12307 

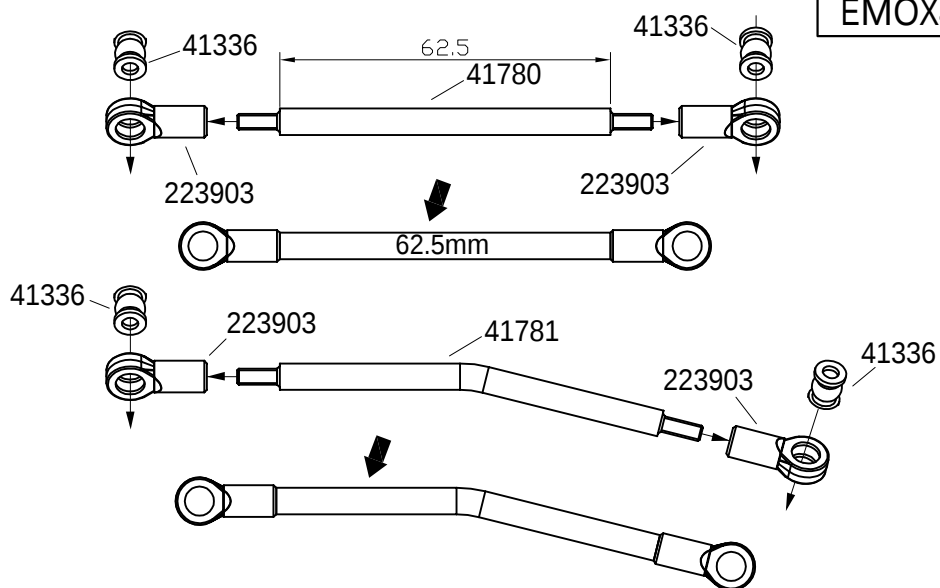
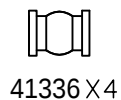
M3 X2

11409 

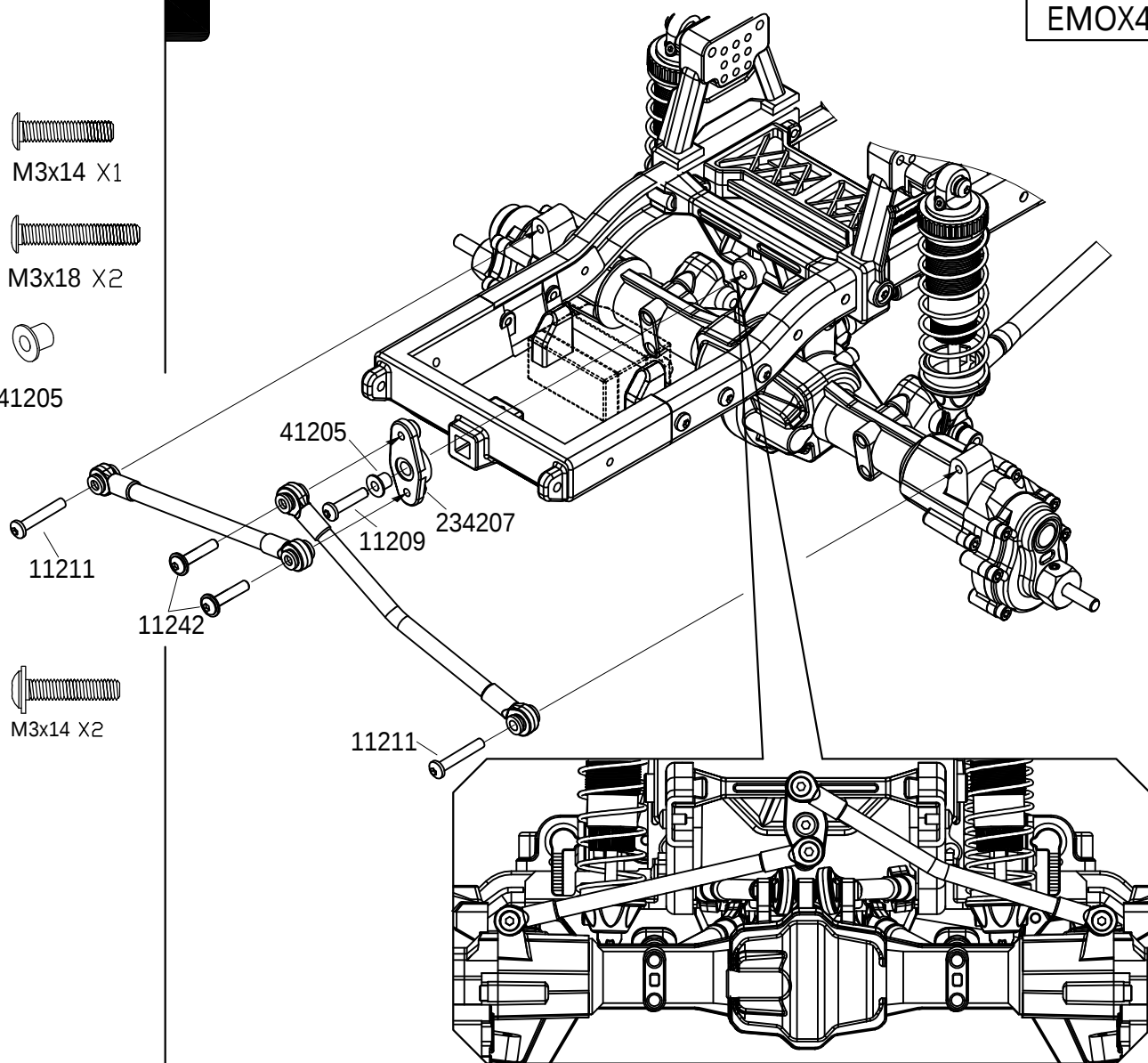
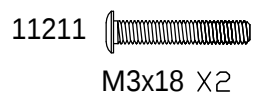
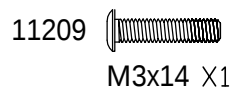
M4x11 X1



EMOX4

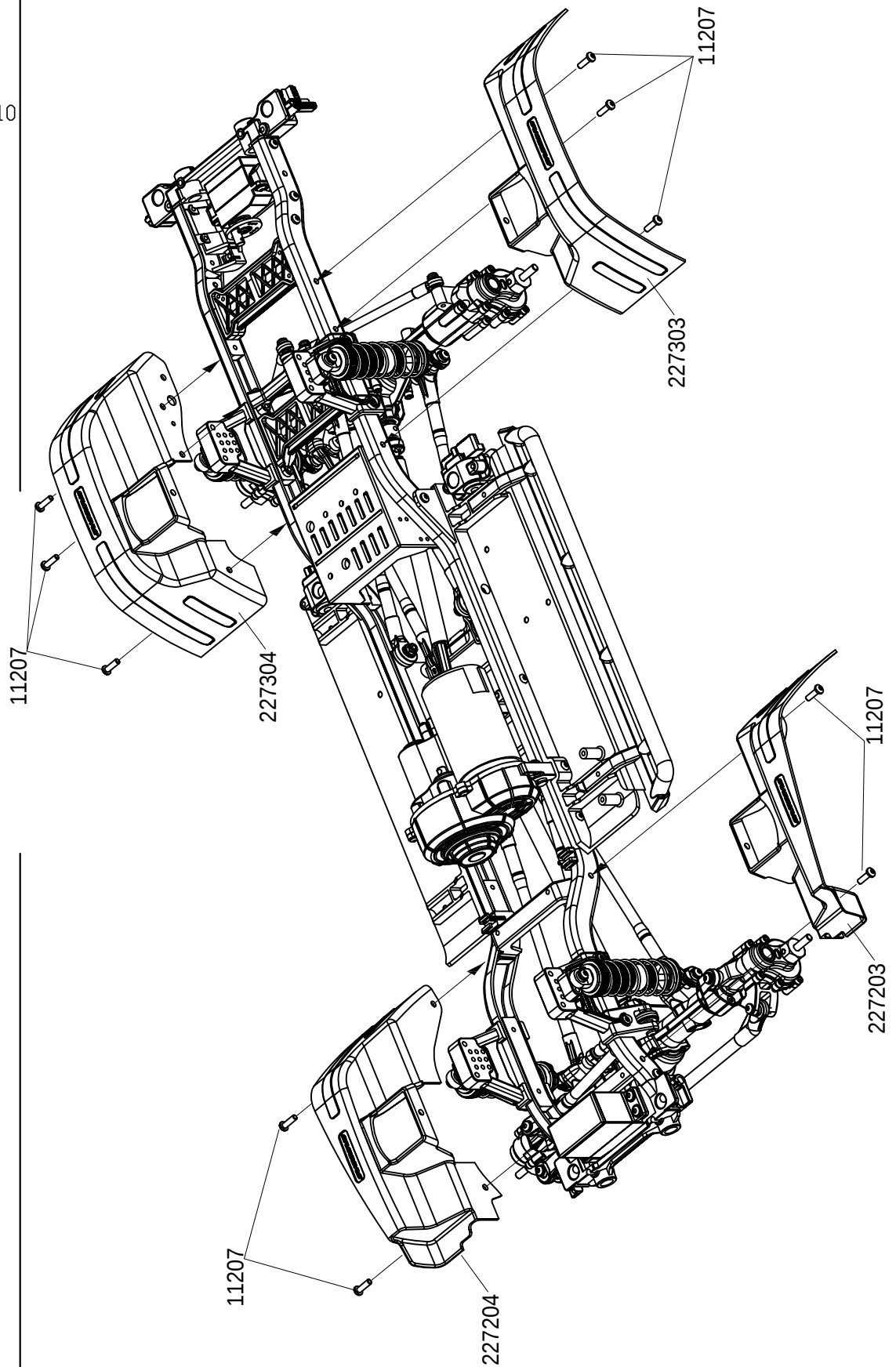


EMOX4



BAG(HH)

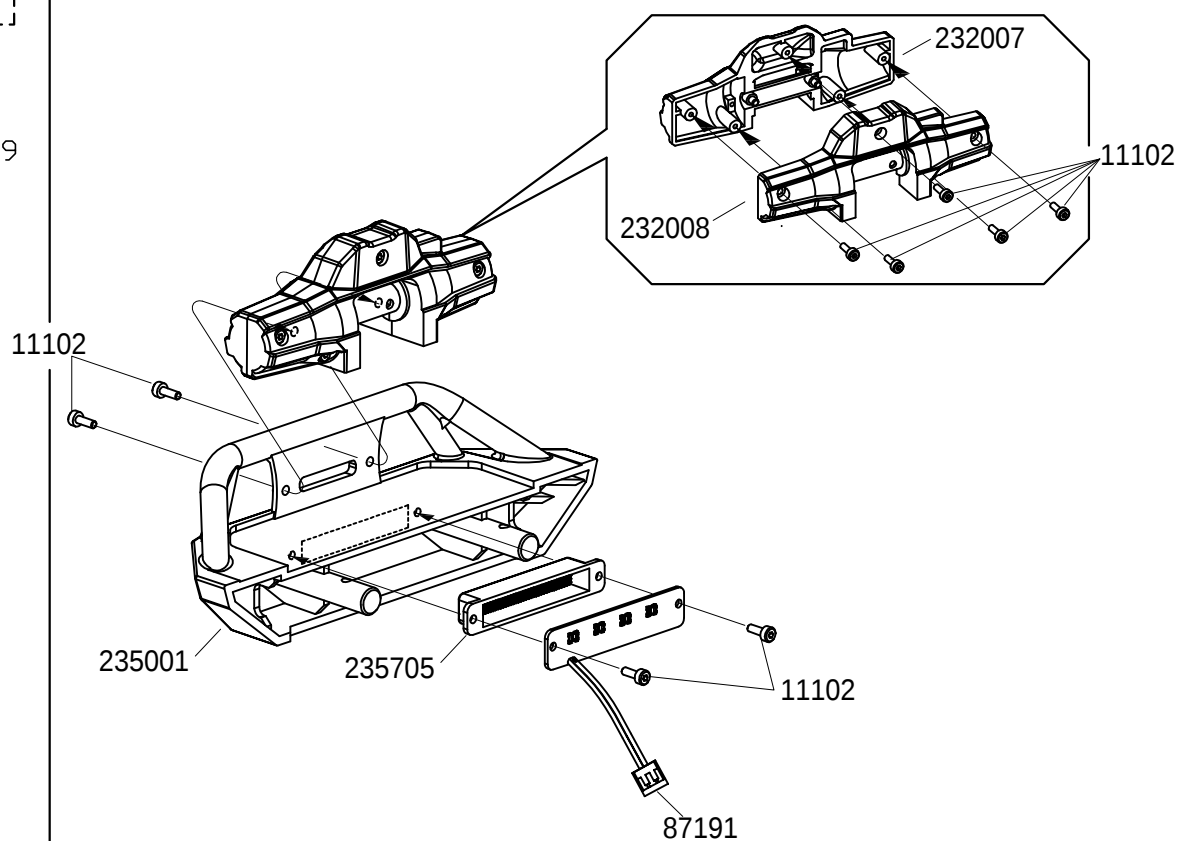
11207 
M3x10 X10



EMOX4

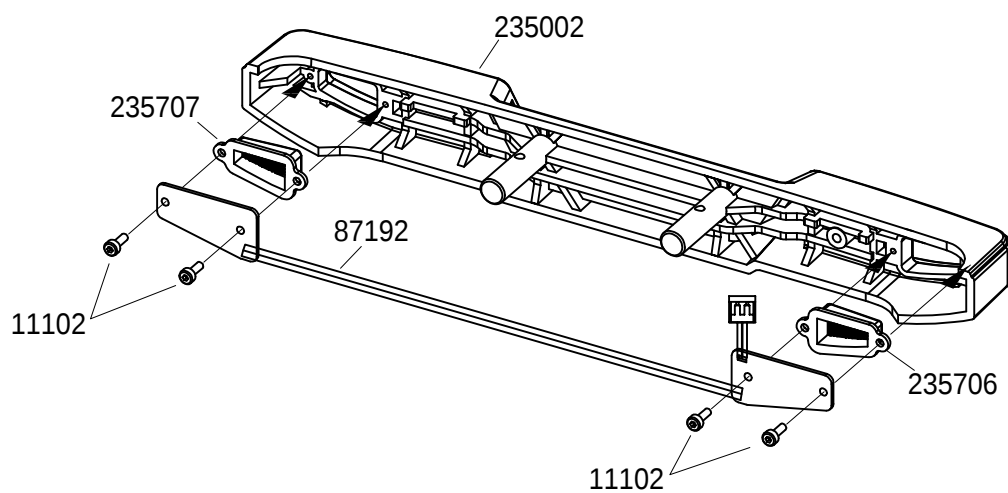
BAG(HH)

11102 
M2x6 X9



EMOX4

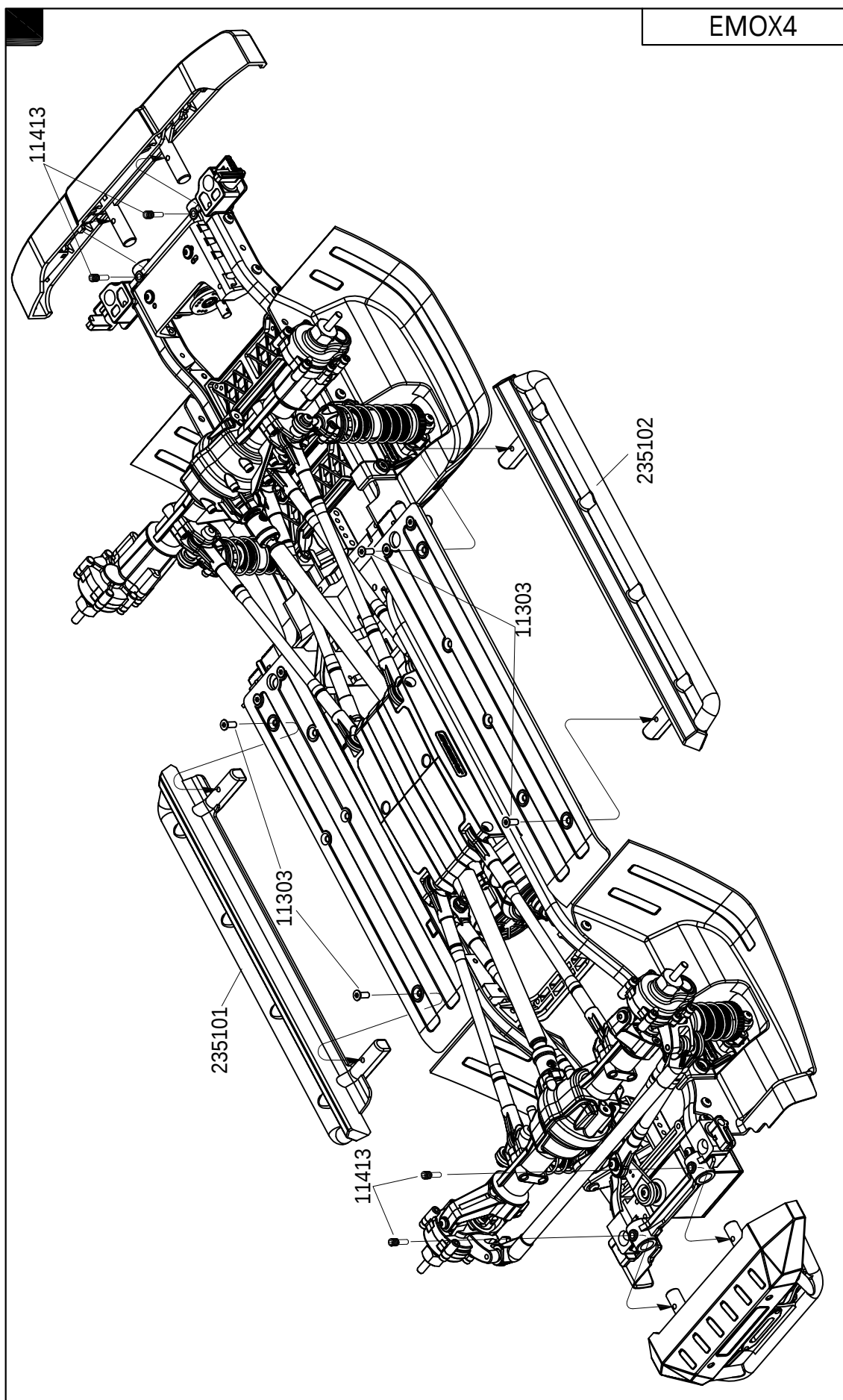
11102 
M2x6 X4



BAG(HH)

11303 
M3x8 X4

11413 
M4x13.5 X4



EMOX4

BAG(HH)

11239 
M3x8 X10

BAG(II)

11227 
M2.5x8 X2

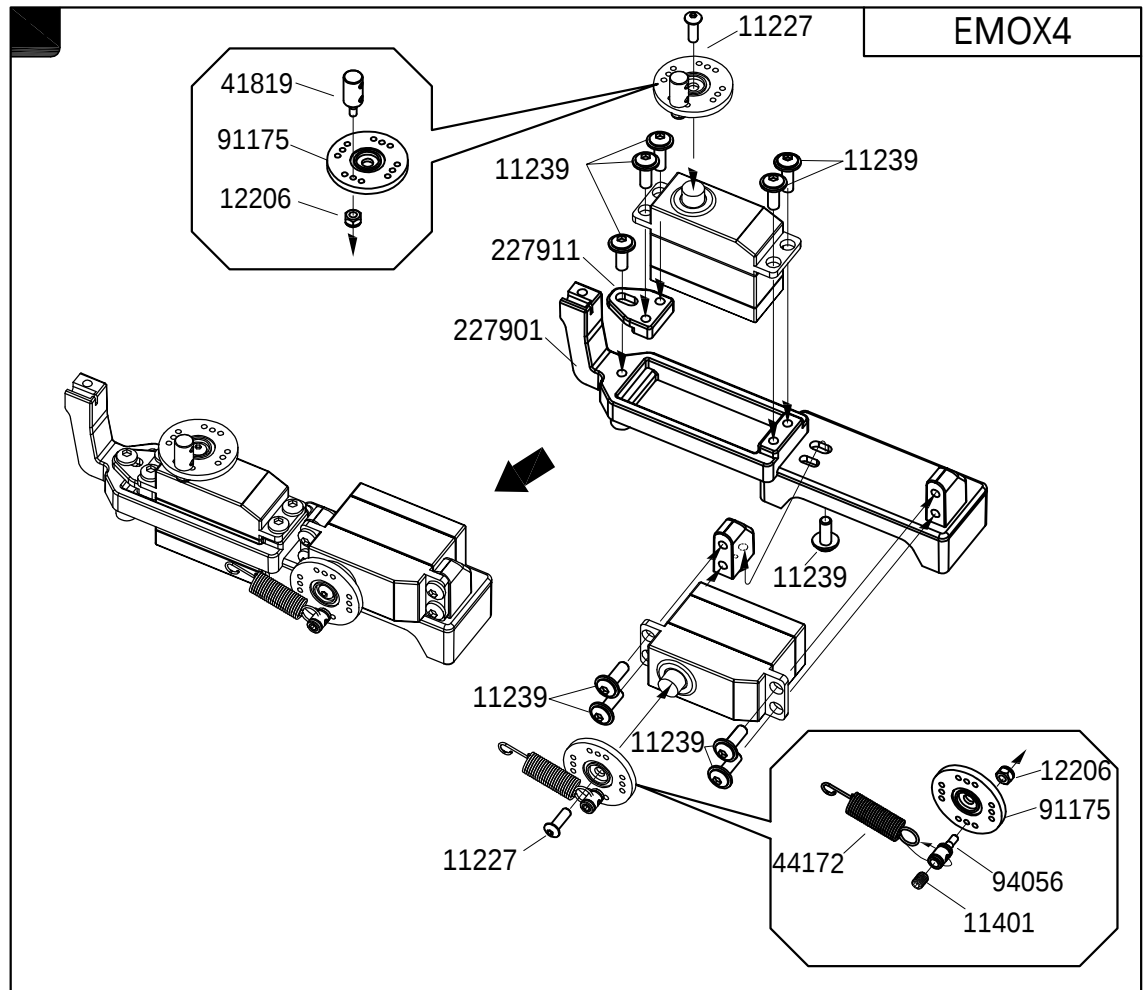
12206 
M2 X2

11401 
M3x4 X1


44172 X1


41819 X1


94056 X1

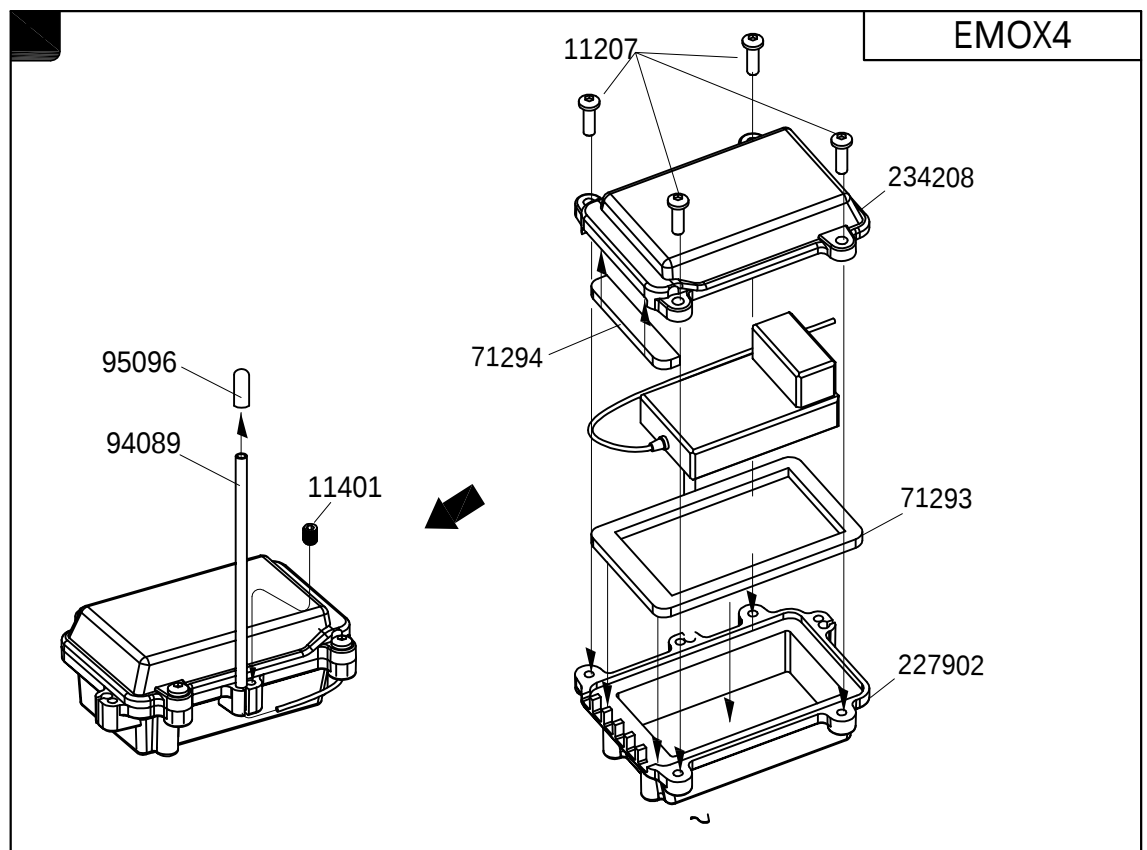


EMOX4

BAG(HH)

11401 
M3x4 X1

11207 
M3x10 X4

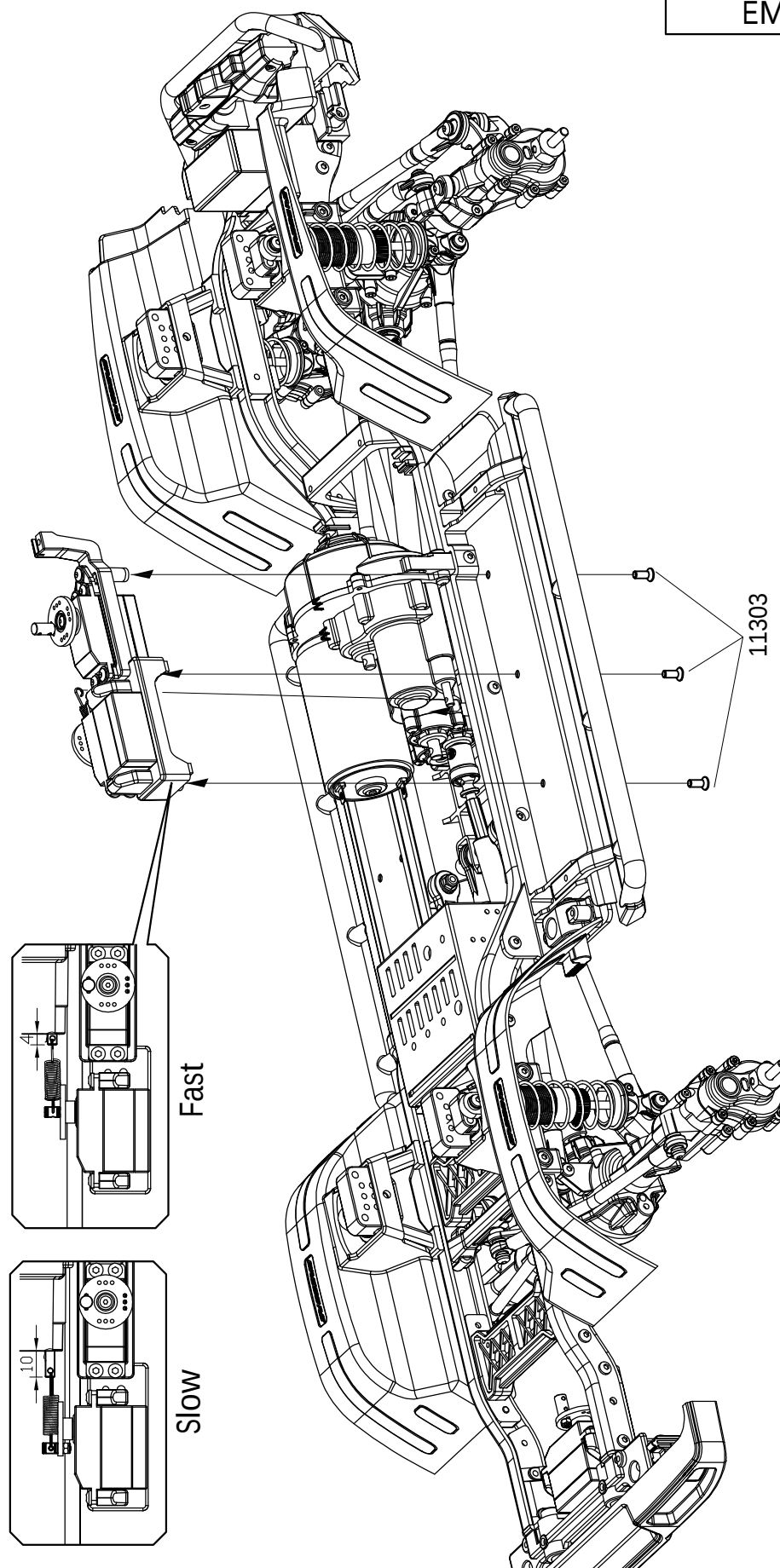


BAG(HH)

11303



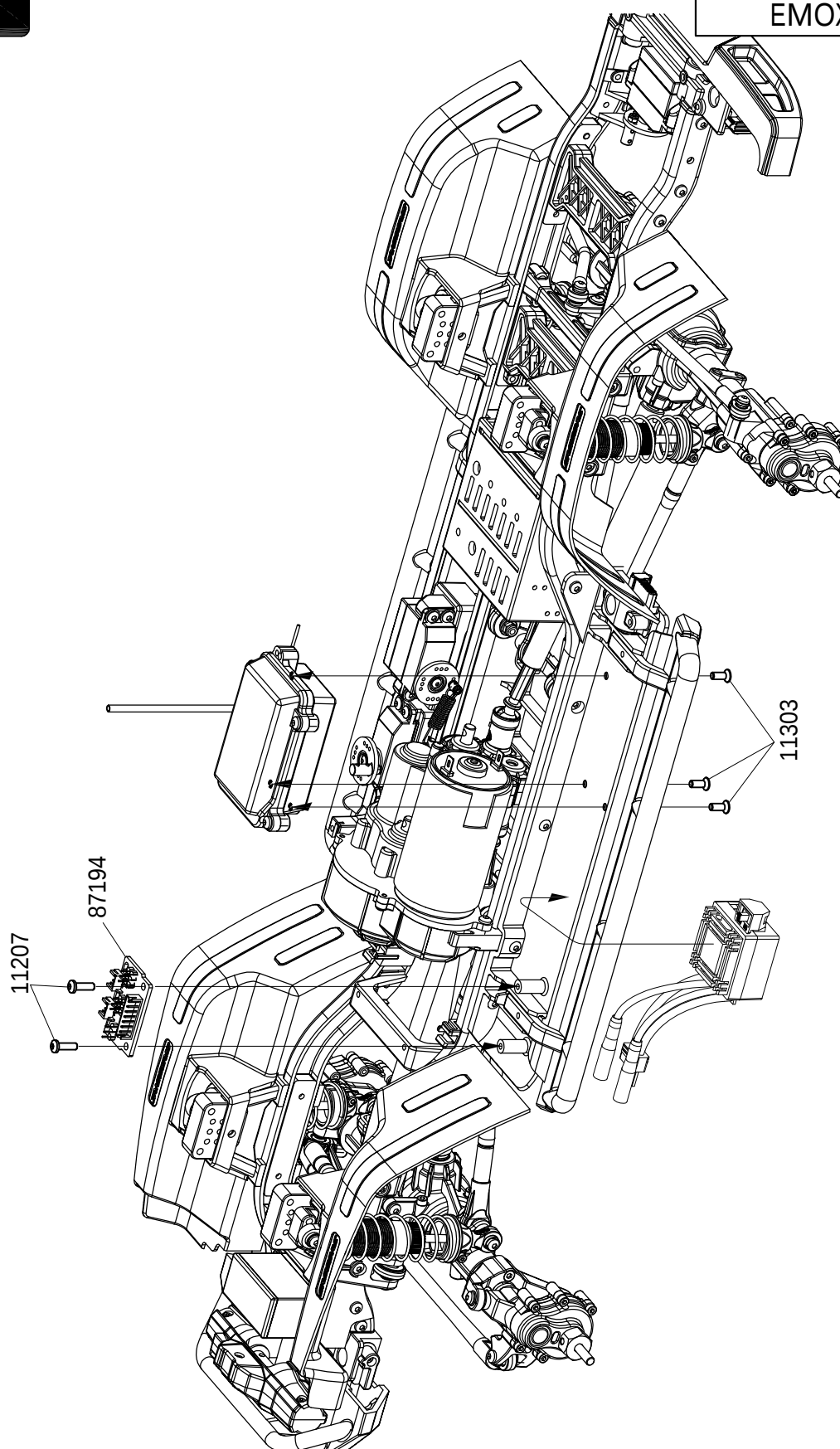
M3x8 X3



BAG(HH)

11303 
M3x8 X3

11207 
M3x10 X2

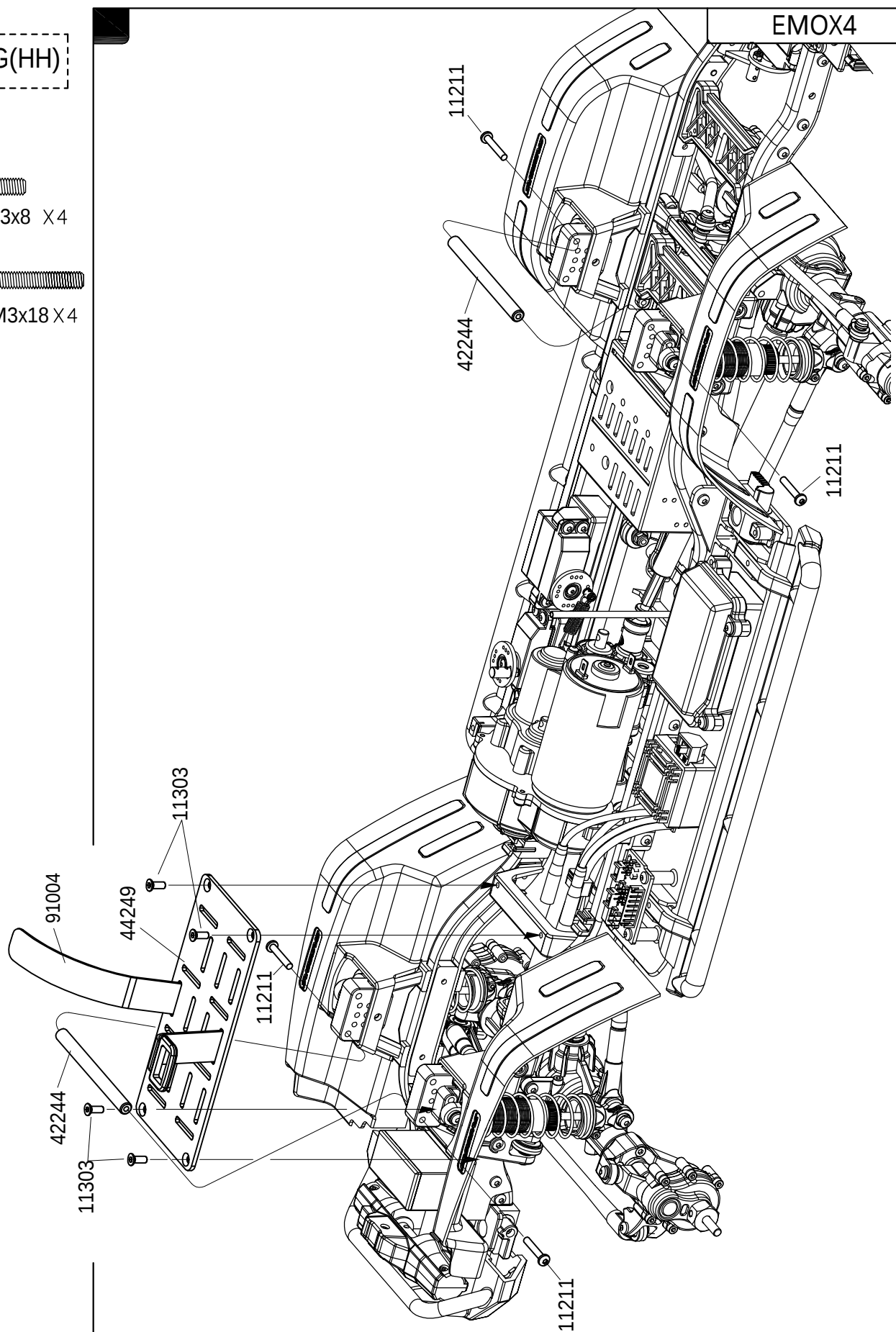


EMOX4

BAG(HH)

11303 
M3x8 X4

11211 
M3x18 X4



EMOX4

BAG(HH)

11239  M3x8 X1

BAG(II)

11401  M3x4 X2

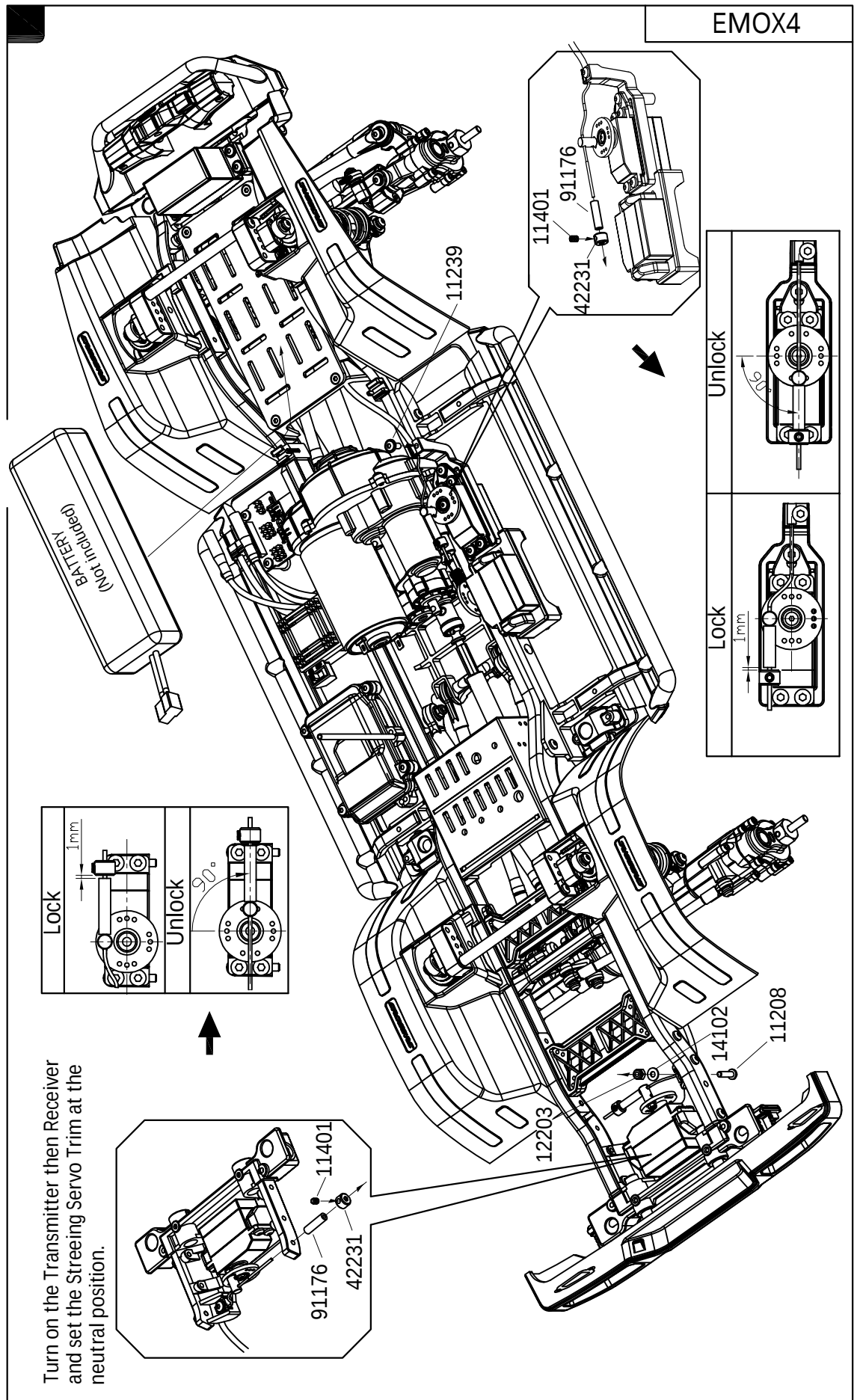
 42231 X2

 91176 X2

14102  $\varnothing 3 \times \varnothing 7 \times 0.5$ X1

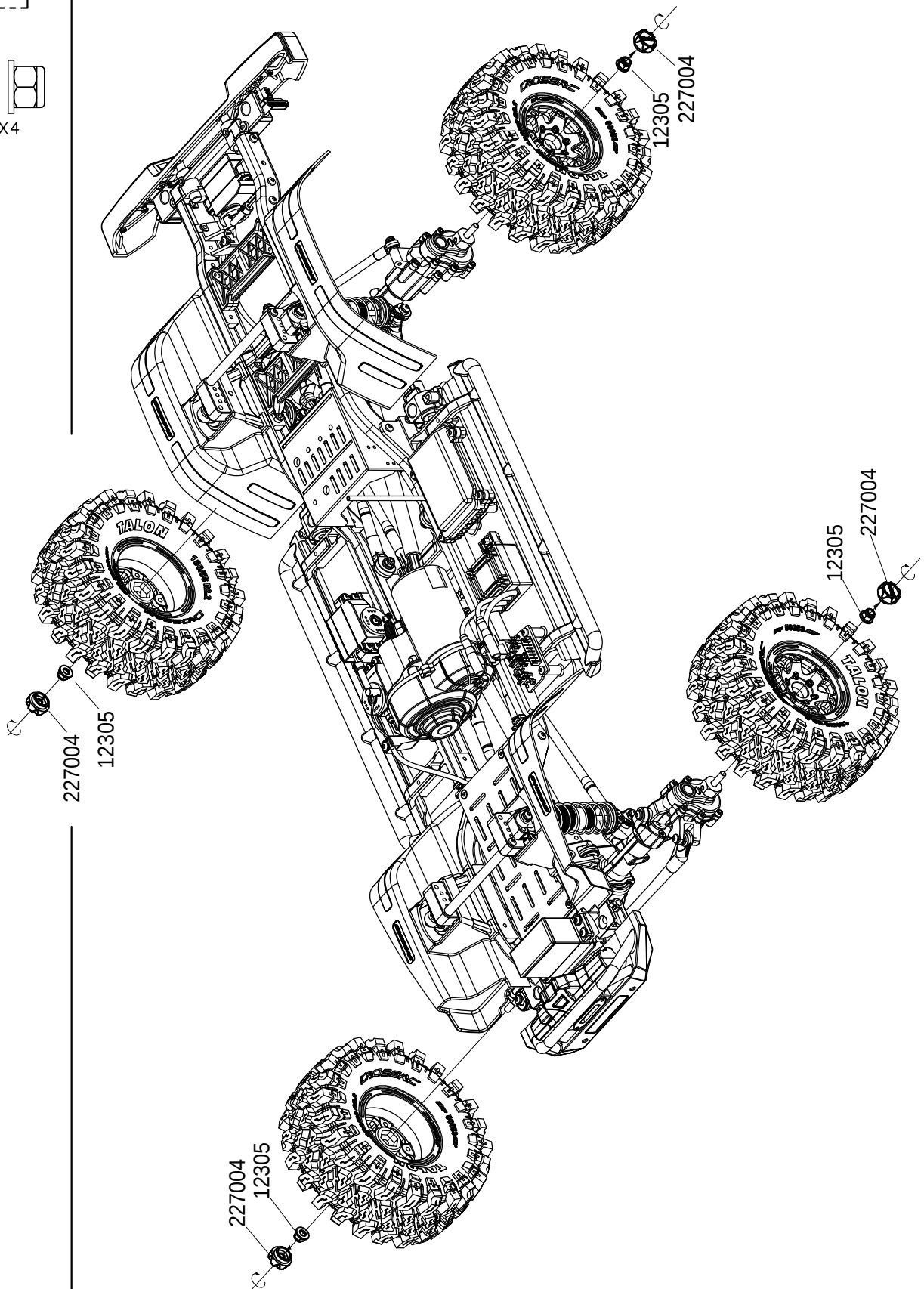
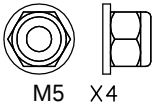
12203   M3 X1

11208  M3x12 X1

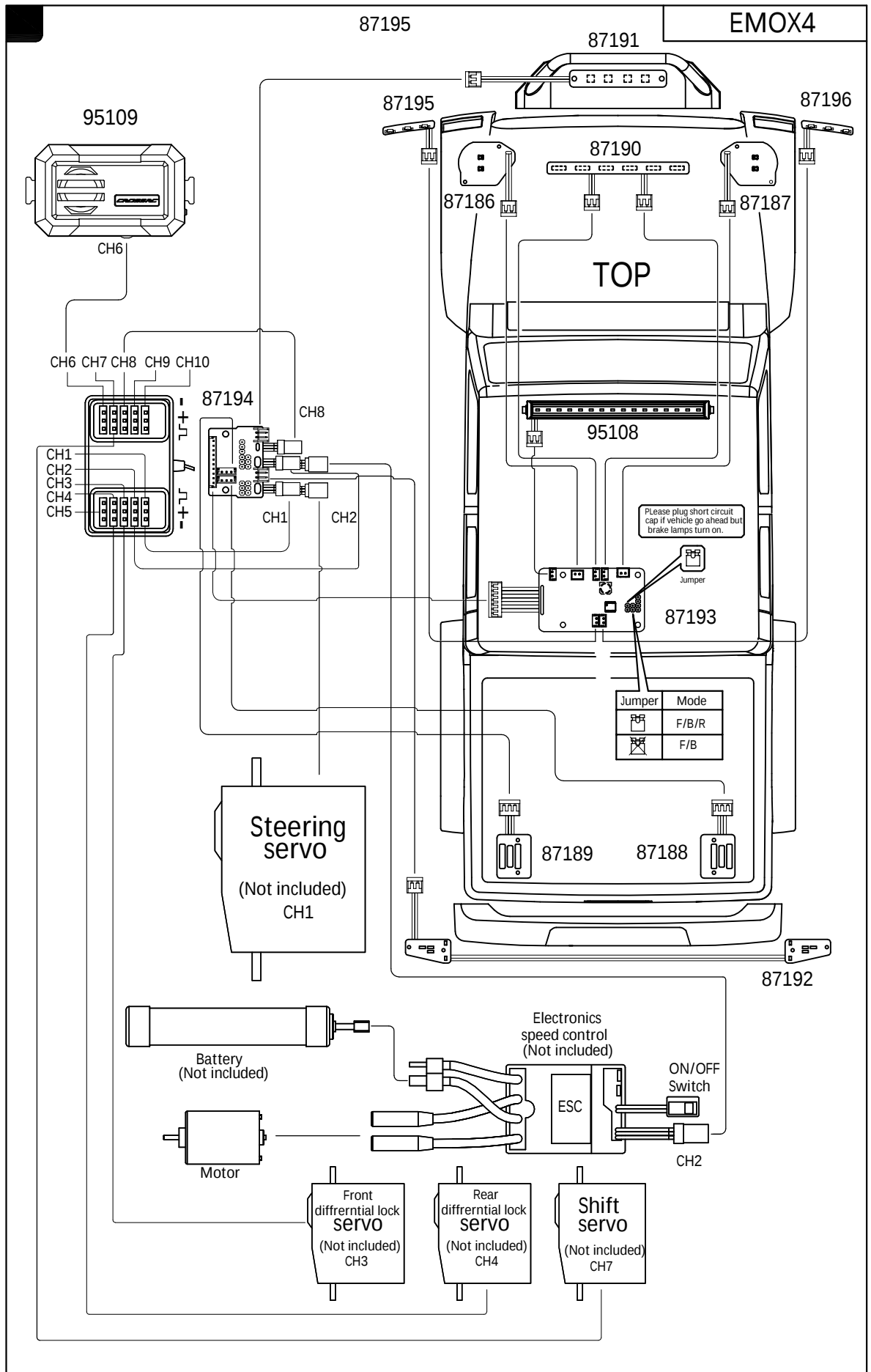


BAG(A)

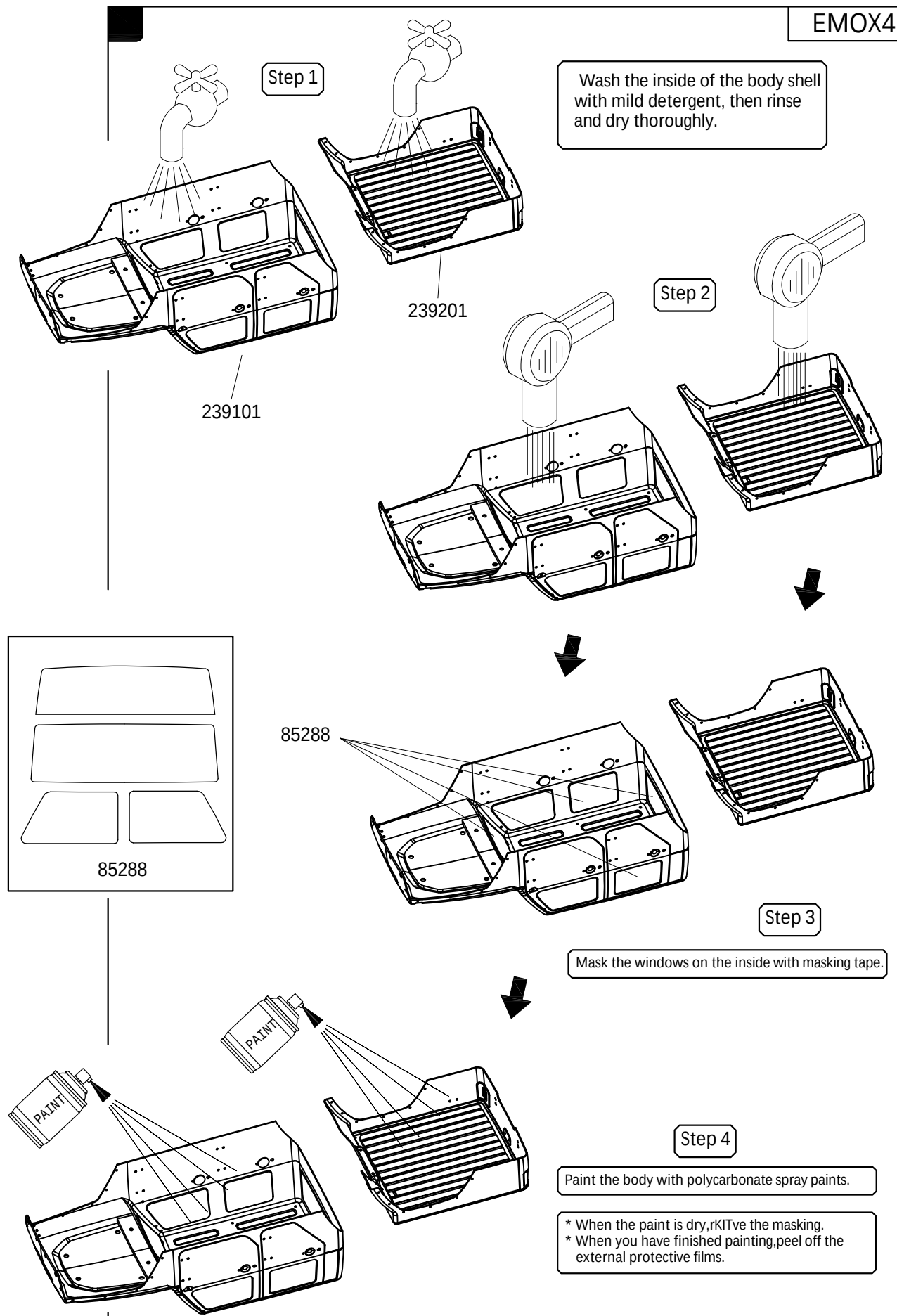
12305



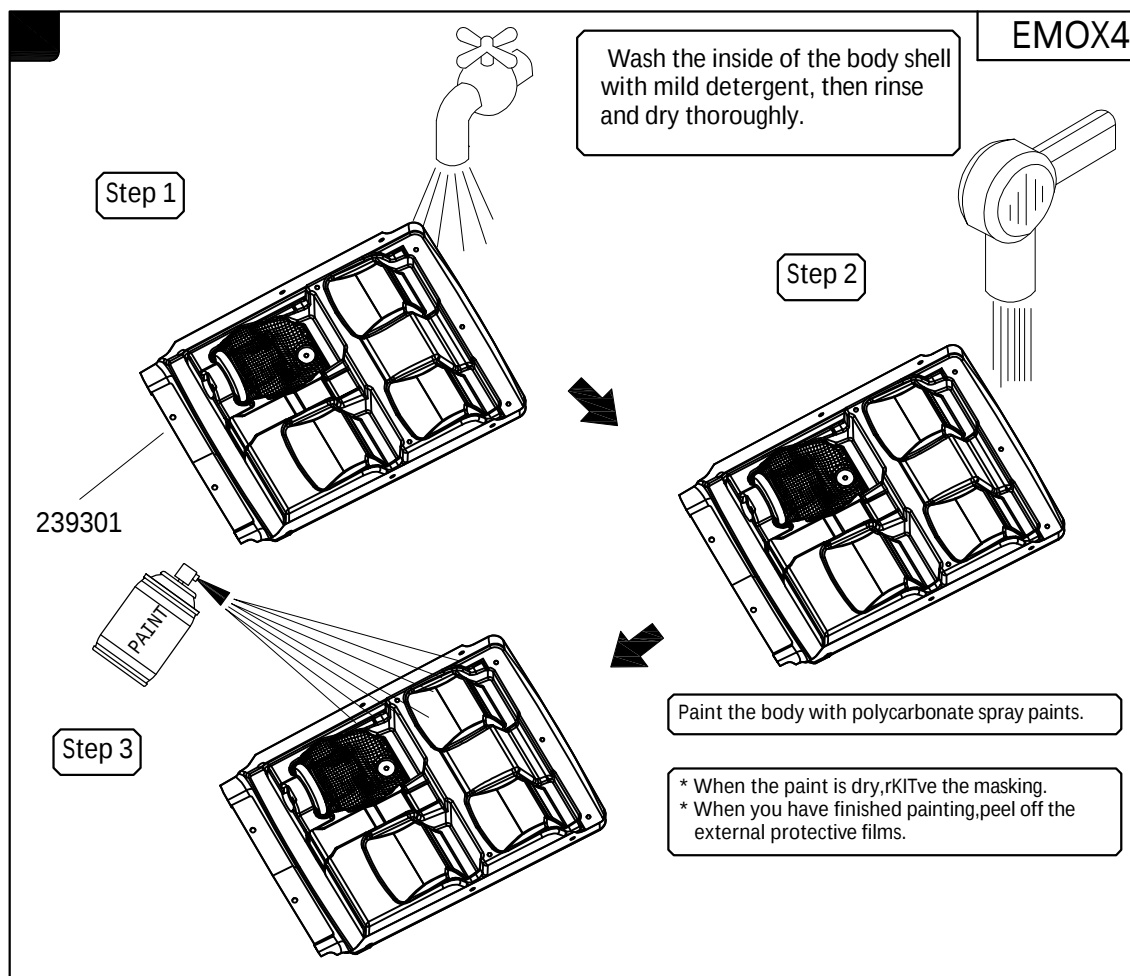
BAG(U)



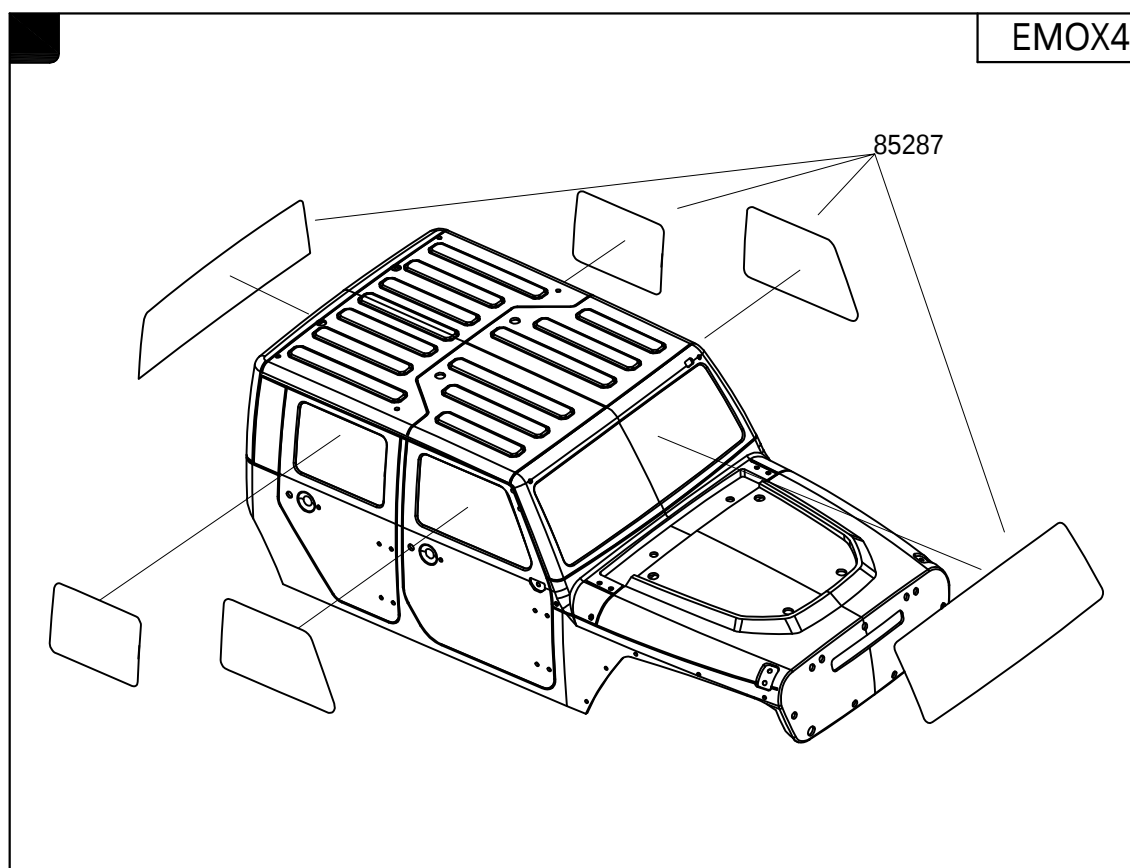
EMOX4



EMOX4



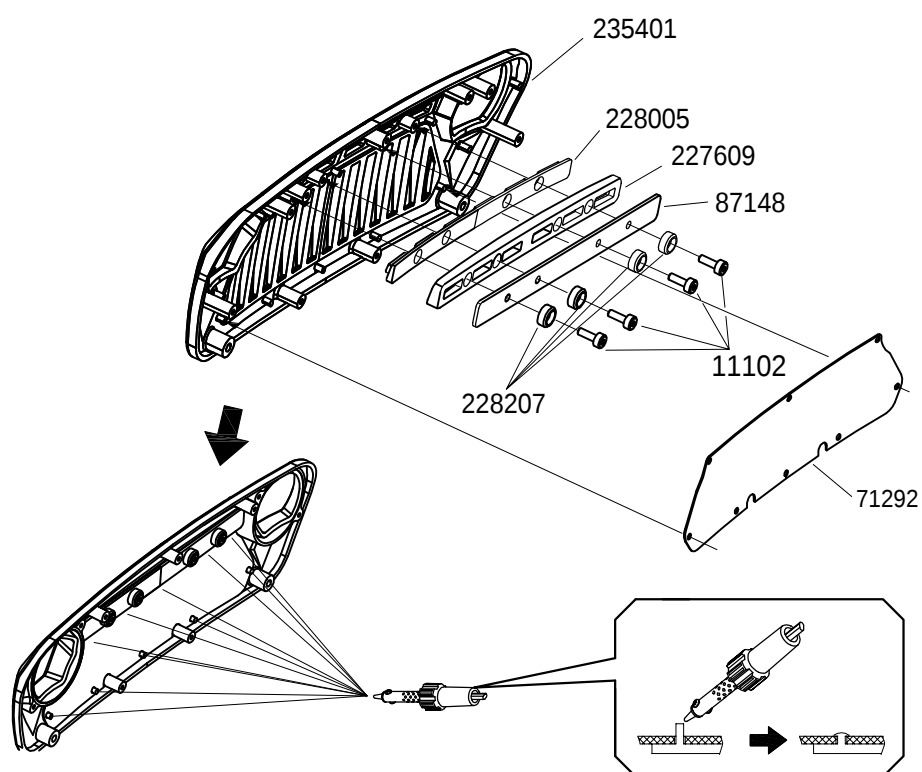
EMOX4



EMOX4

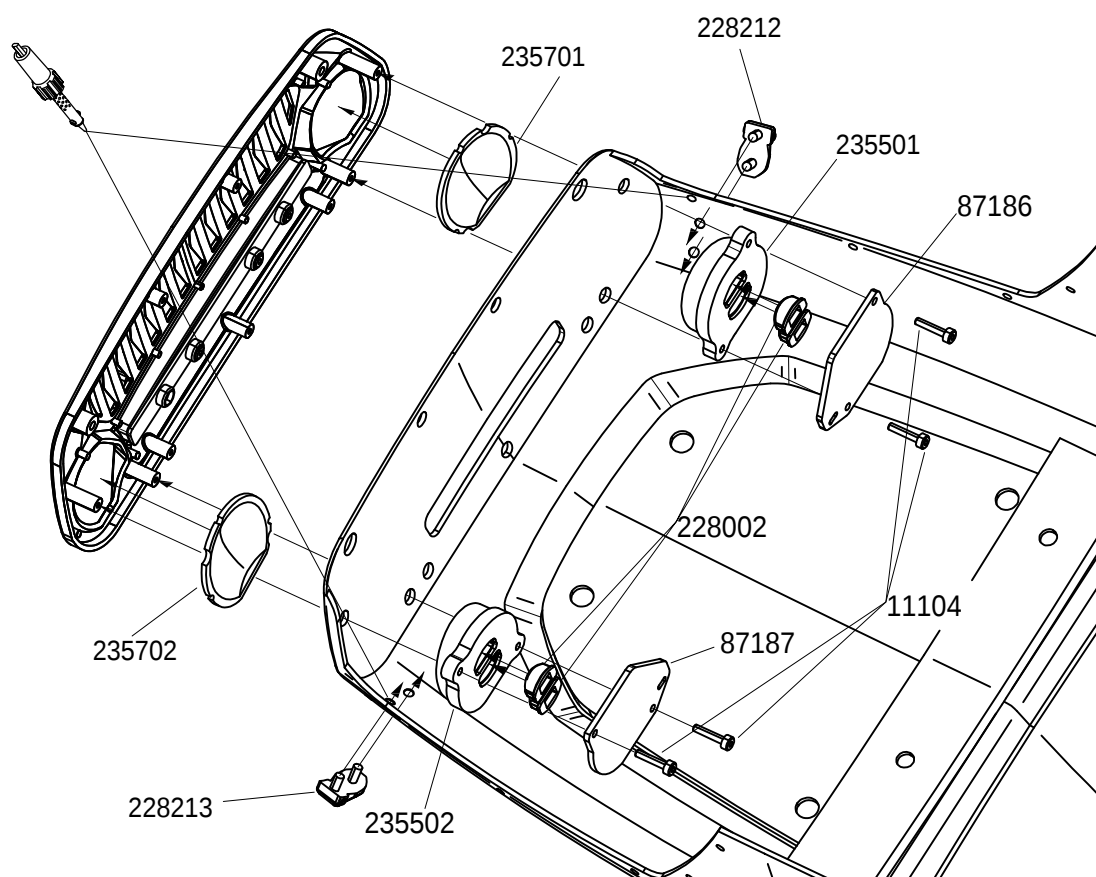
BAG(HH)

11102 
M2x6 X4



EMOX4

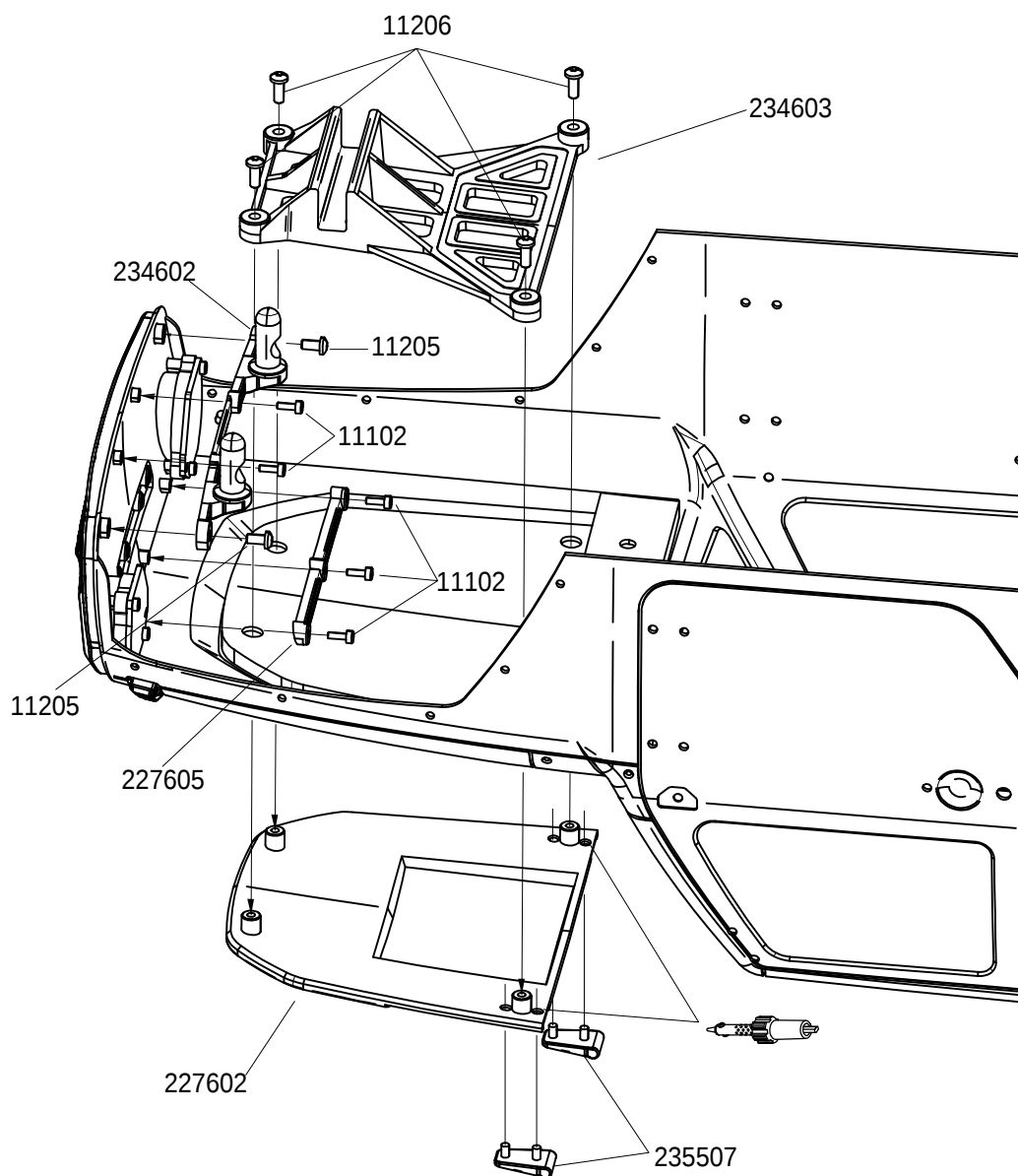
11104 
M2x10 X4



11206 
M3x8 X 4

11102 
M2x6 X5

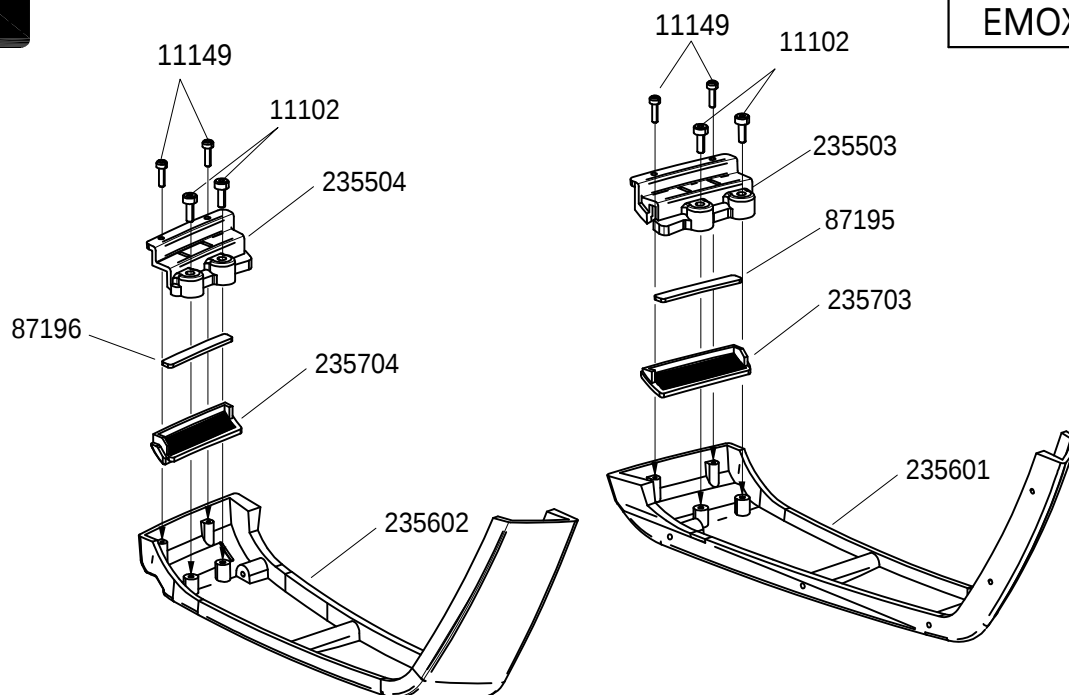
11205 
M3x6 X2



EMOX4

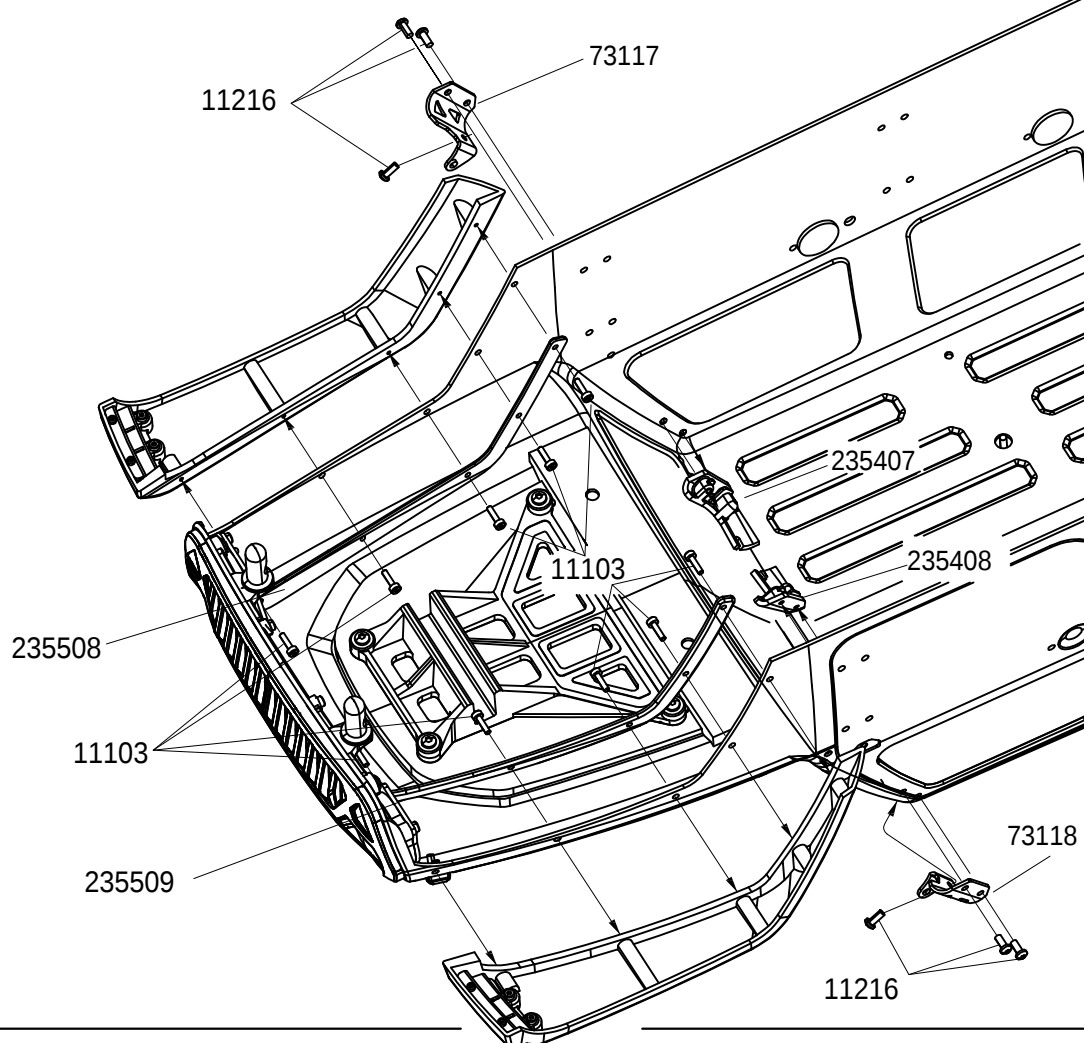
BAG(HH)

- 11149  M1.6x6 X4
- 11102  M2x6 X4



EMOX4

- 11216  M2.5x6 X6
- 11103  M2x8 X10



BAG(HH)

11205 

M3x6 X2

11102 

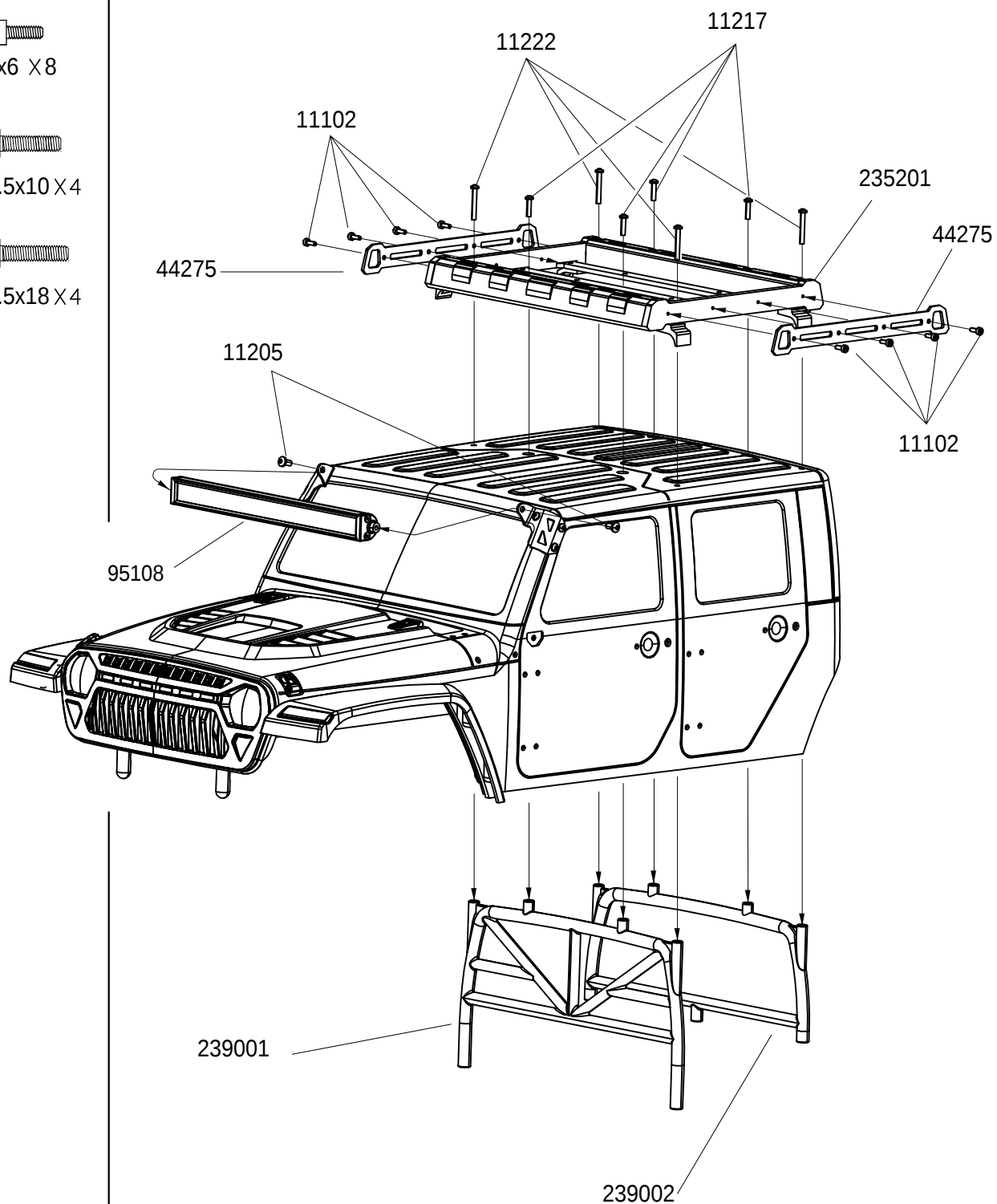
M2x6 X8

11217 

M2.5x10 X4

11222 

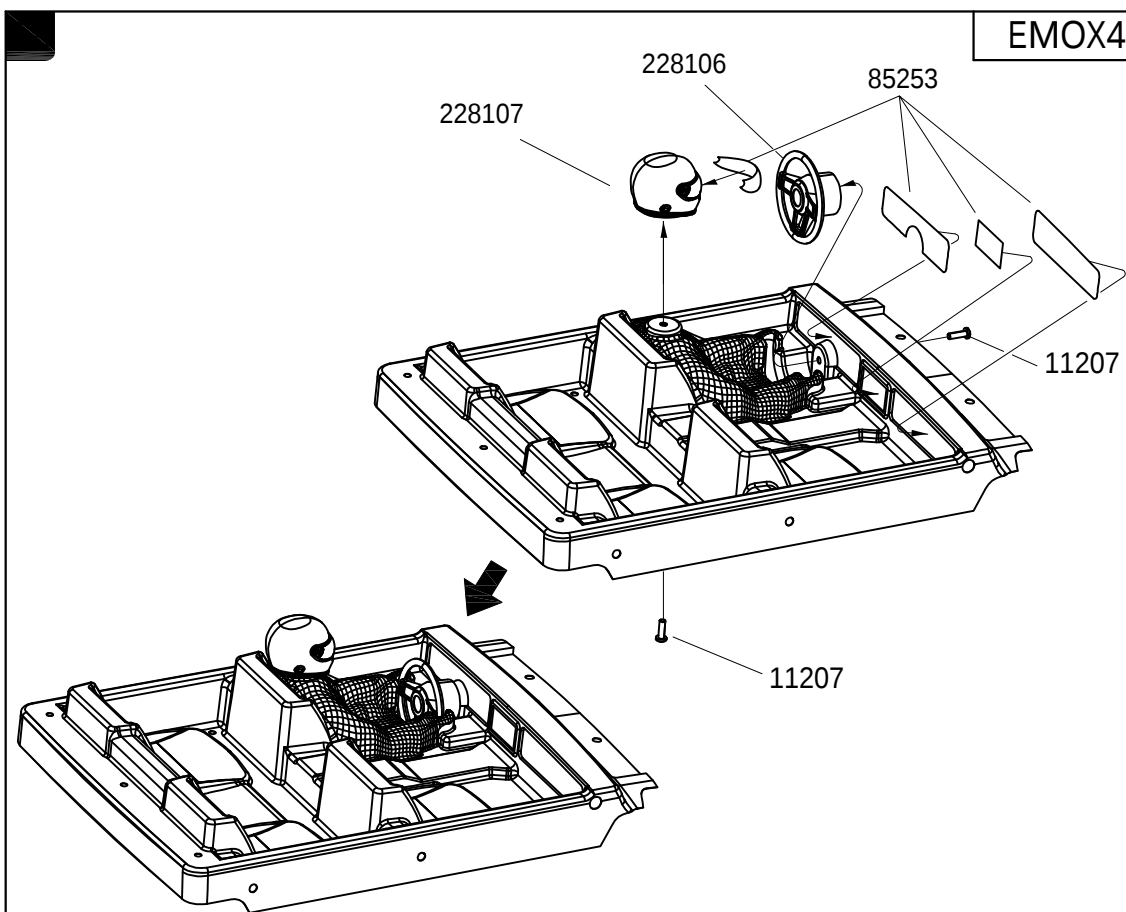
M2.5x18 X4



BAG(HH)

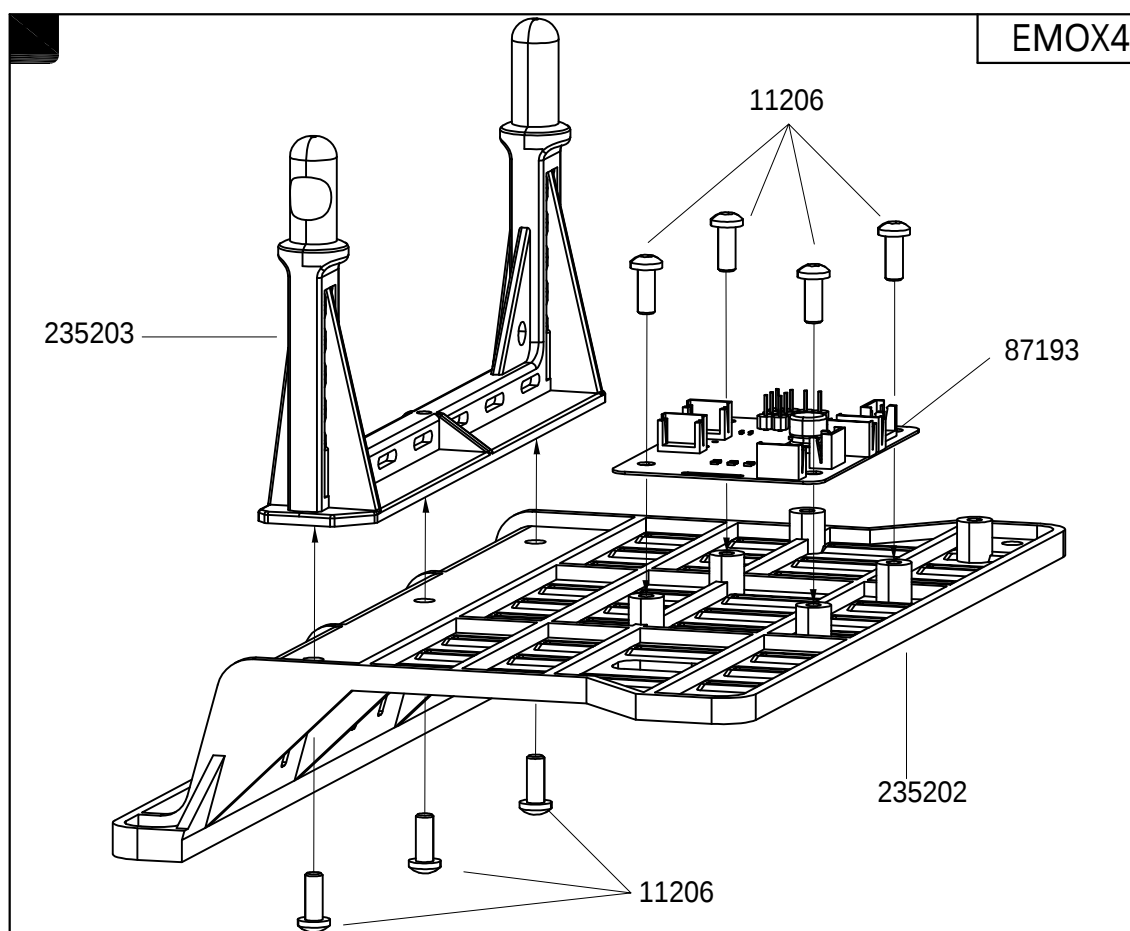
11207 
M3x10 X2

EMOX4



EMOX4

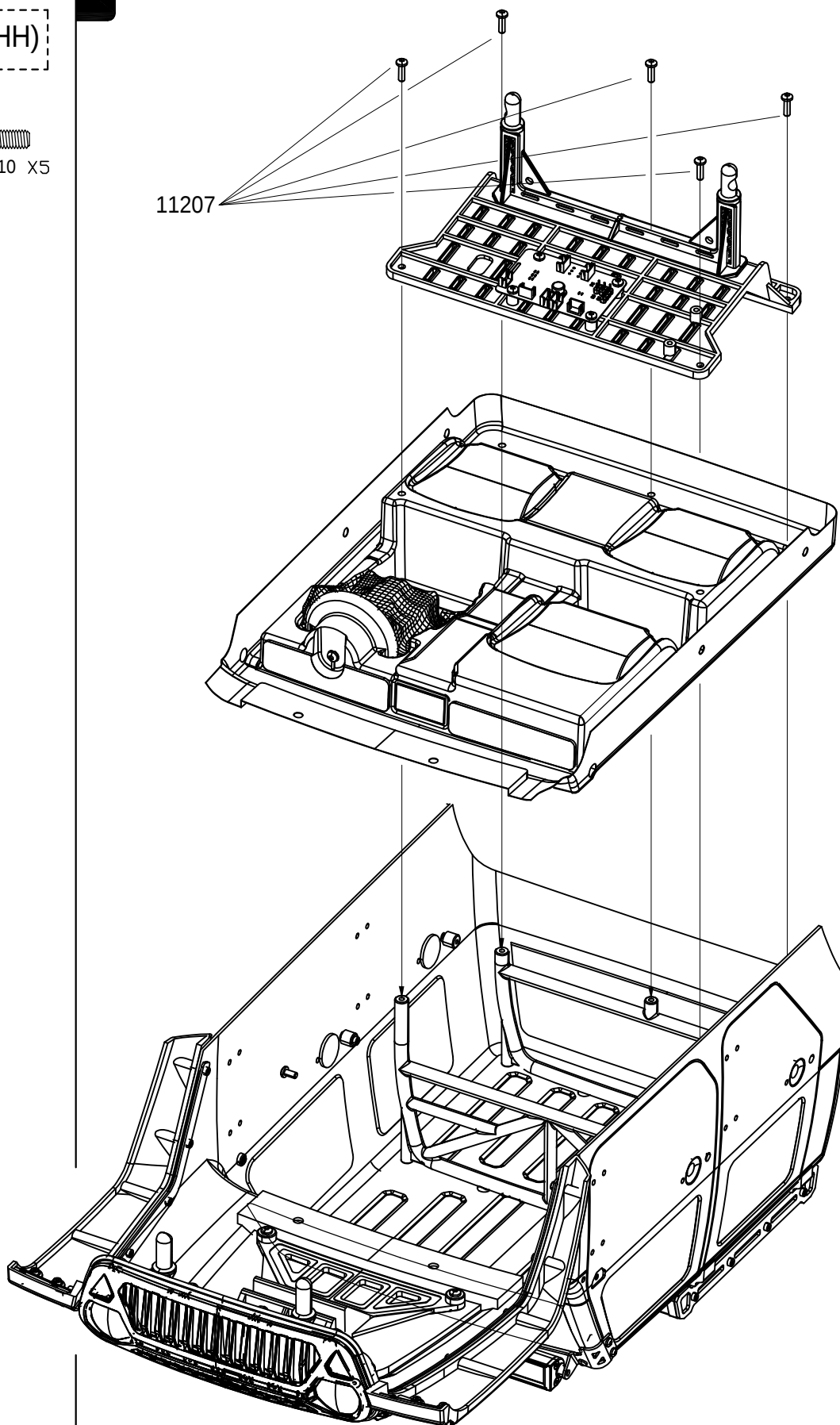
11206 
M3x8 X7



BAG(HH)

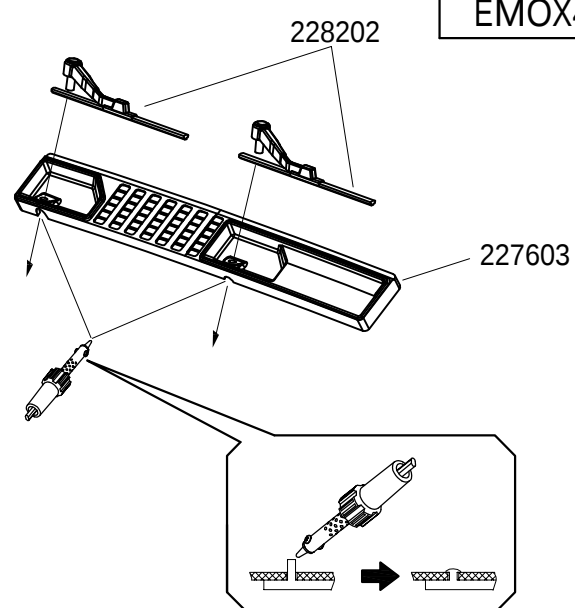
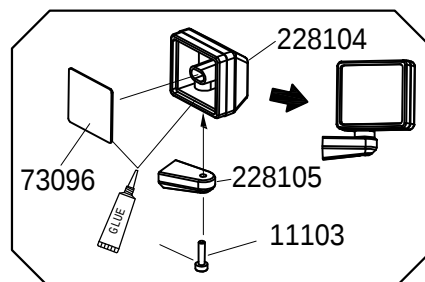
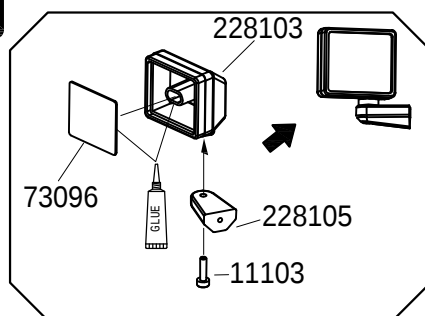
11207 
M3x10 X5

11207



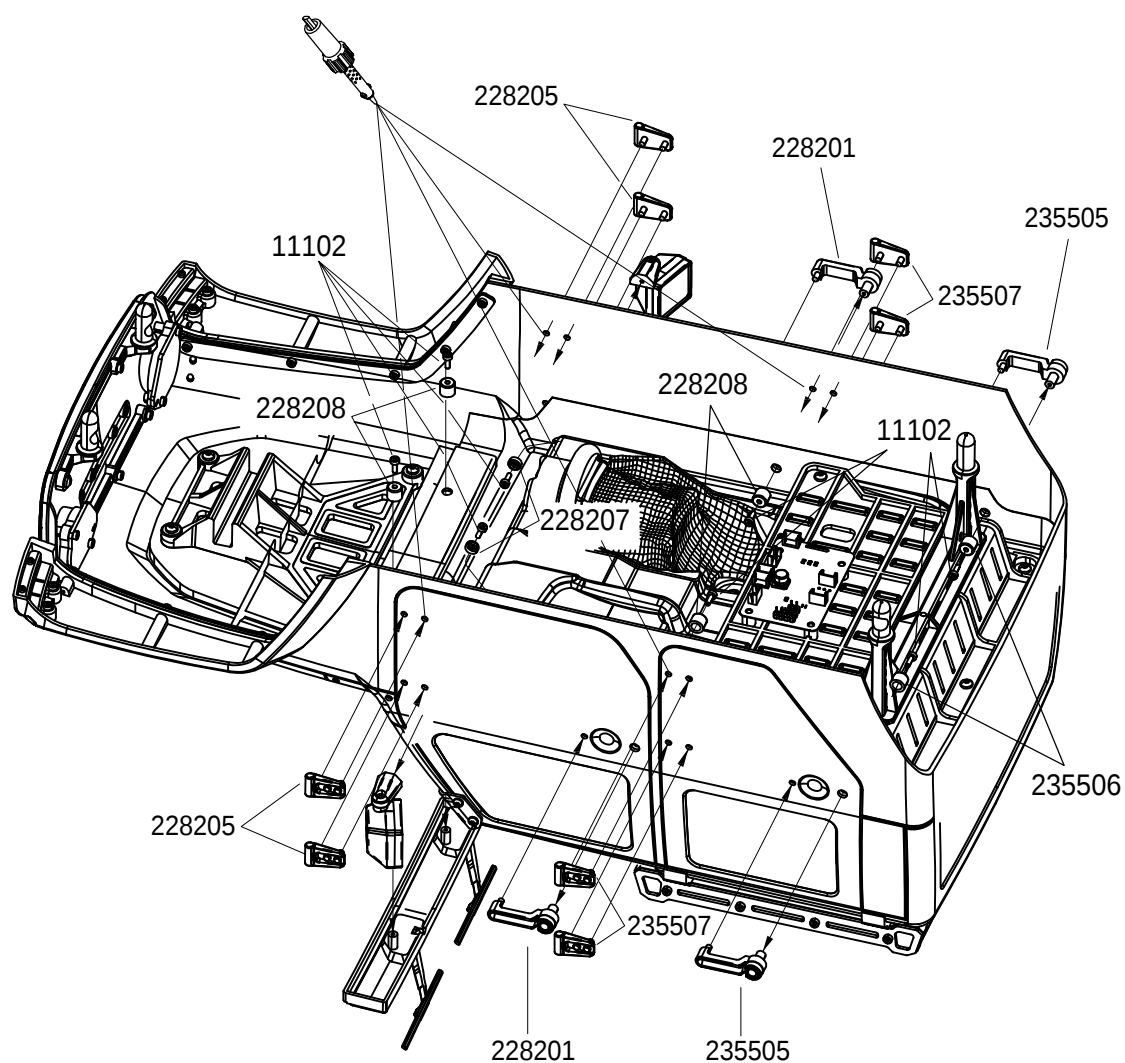
BAG(HH)

11103 
M2x8 X2



EMOX4

11102 
M2x6 X8



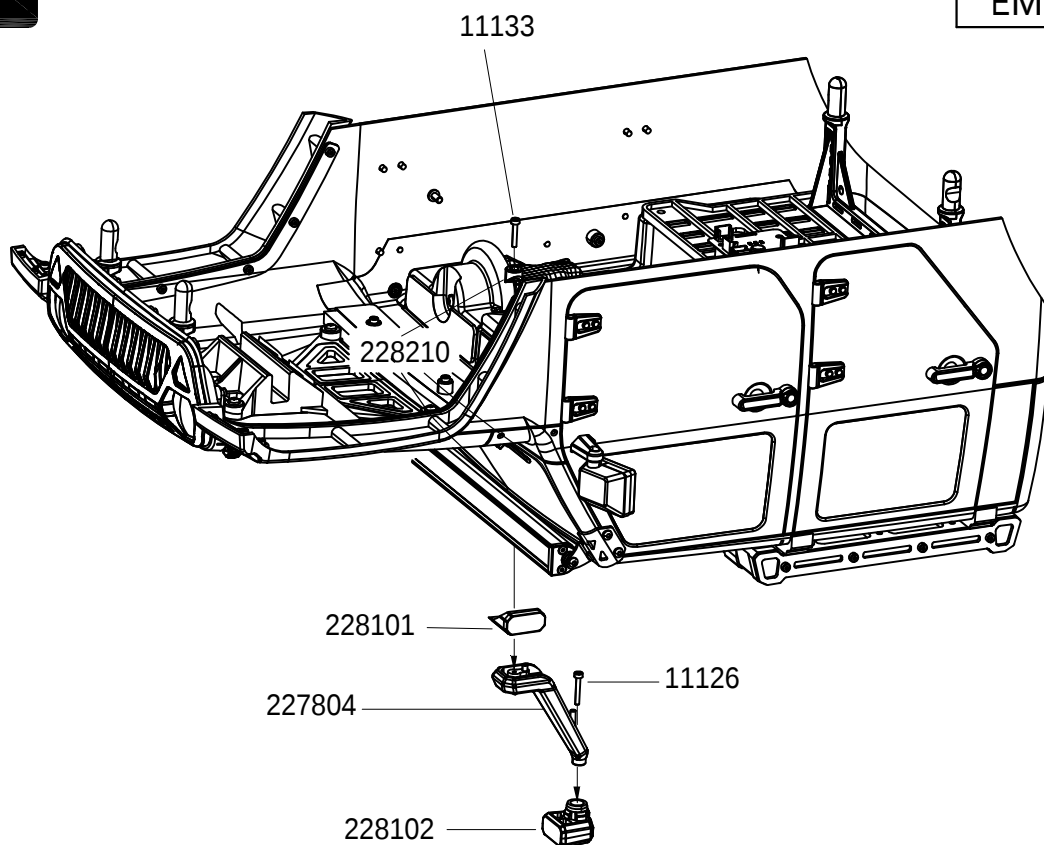
EMOX4

EMOX4

BAG(HH)

11133  M2x12 X1

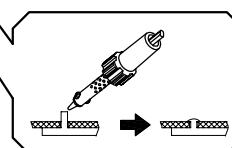
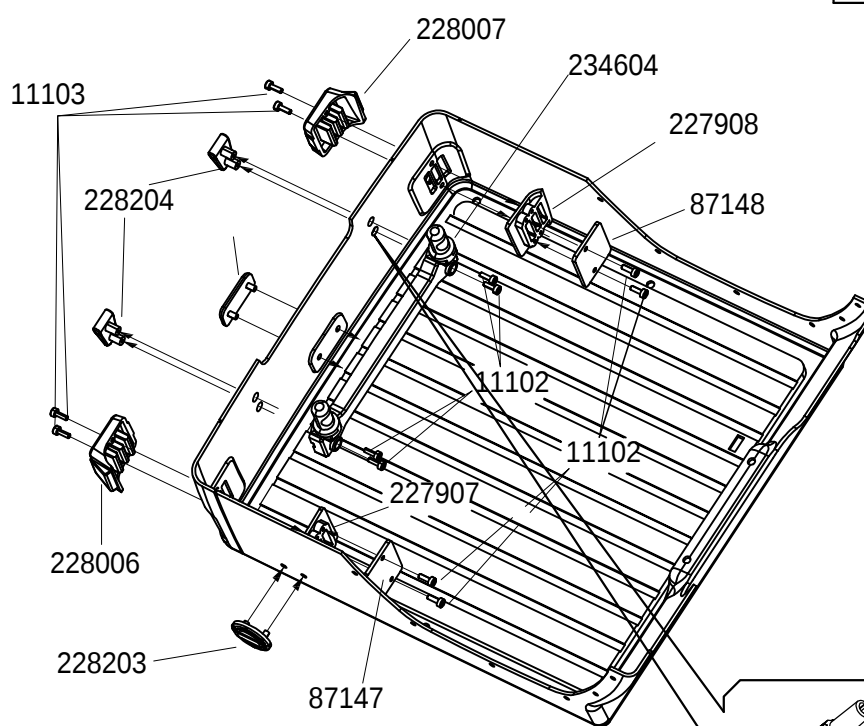
11126  M2x14 X1



EMOX4

11102  M2x6 X8

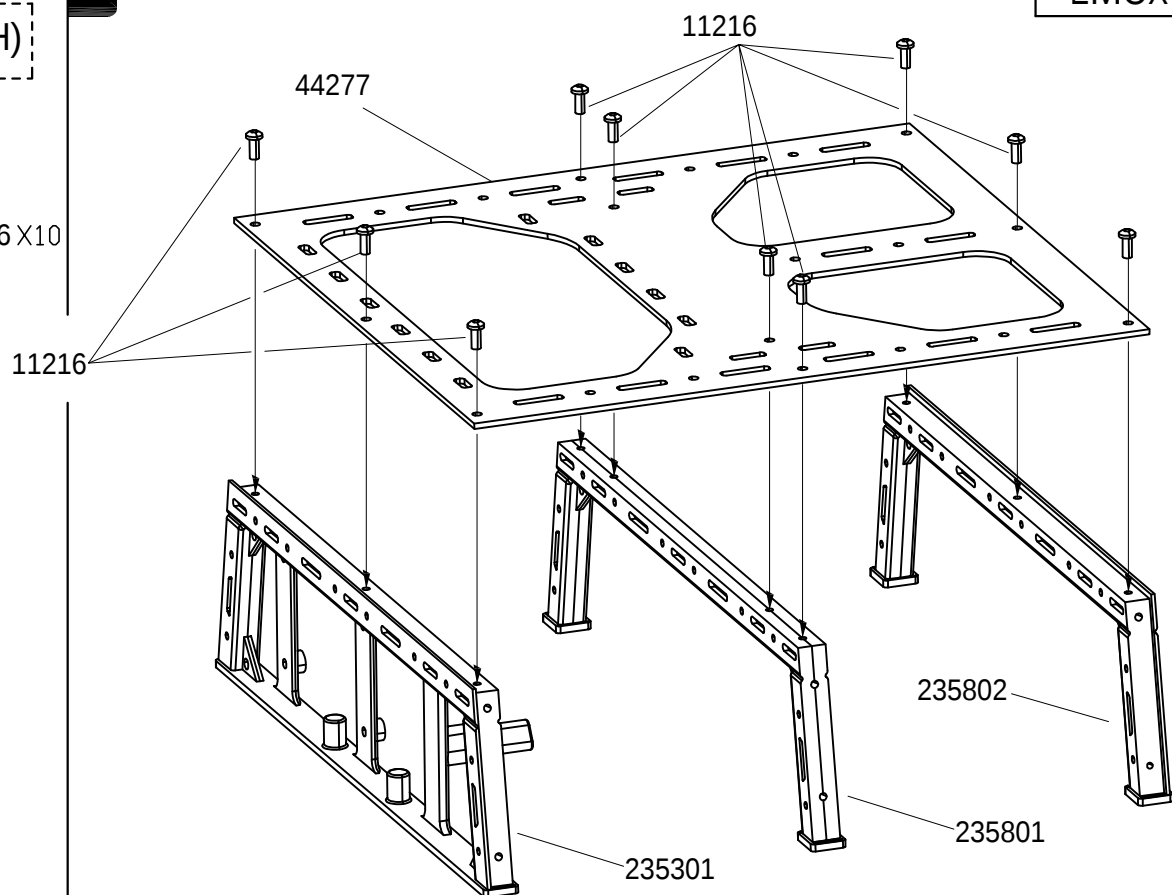
11103  M2x8 X4



EMOX4

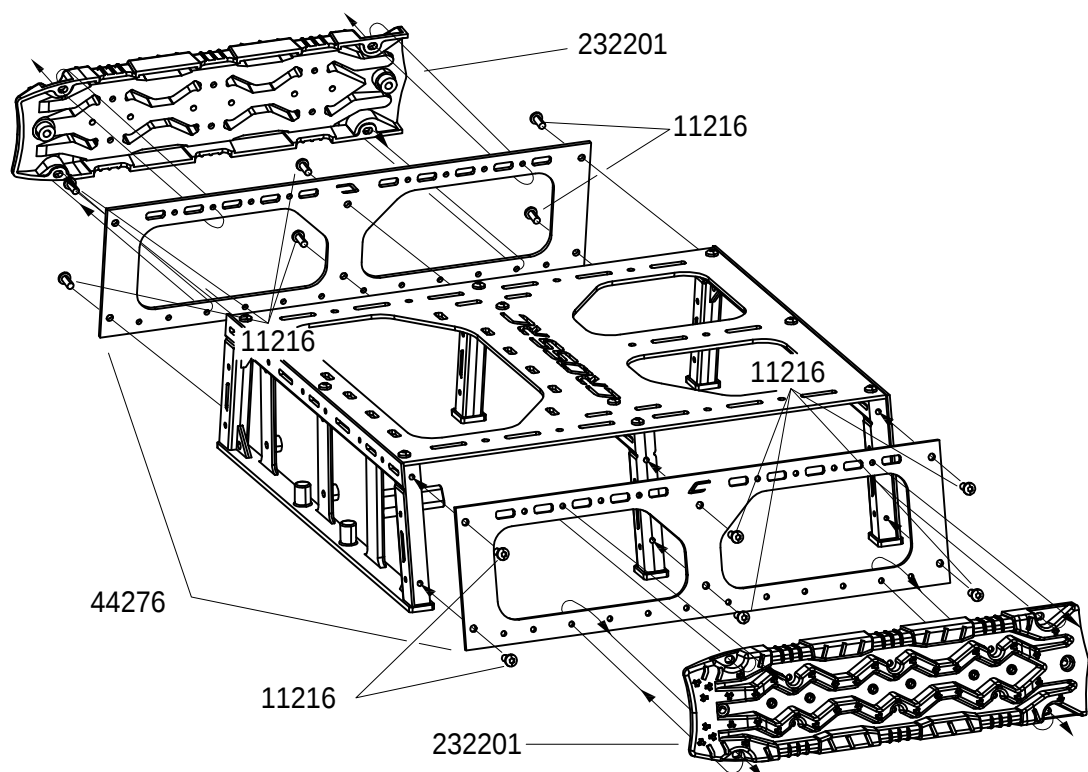
BAG(HH)

11216 
M2.5x6 X10



EMOX4

11216 
M2.5x6 X12



EMOX4

BAG(HH)

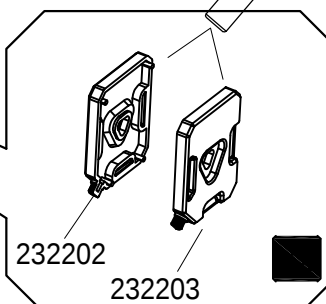
11217 
M2.5x10 X 4

11238 
M3x8X10 X 1

11238

95109

11217



EMOX4

11103 
M2x8 X12

235603

235510

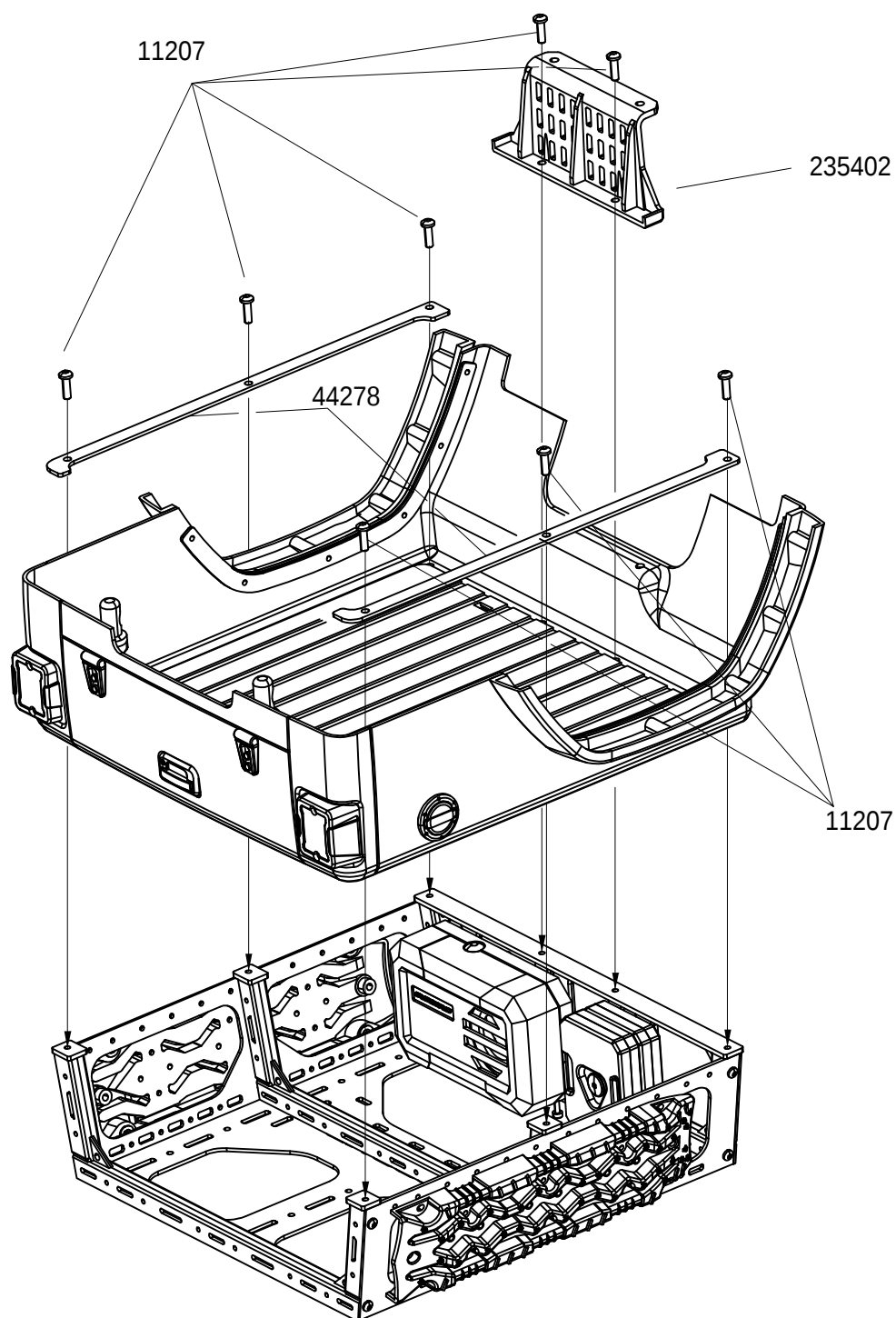
11103

235511

235604

BAG(HH)

11207 
M3x10 X8



BAG(HH)

11207 
M3x10 X2

