

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

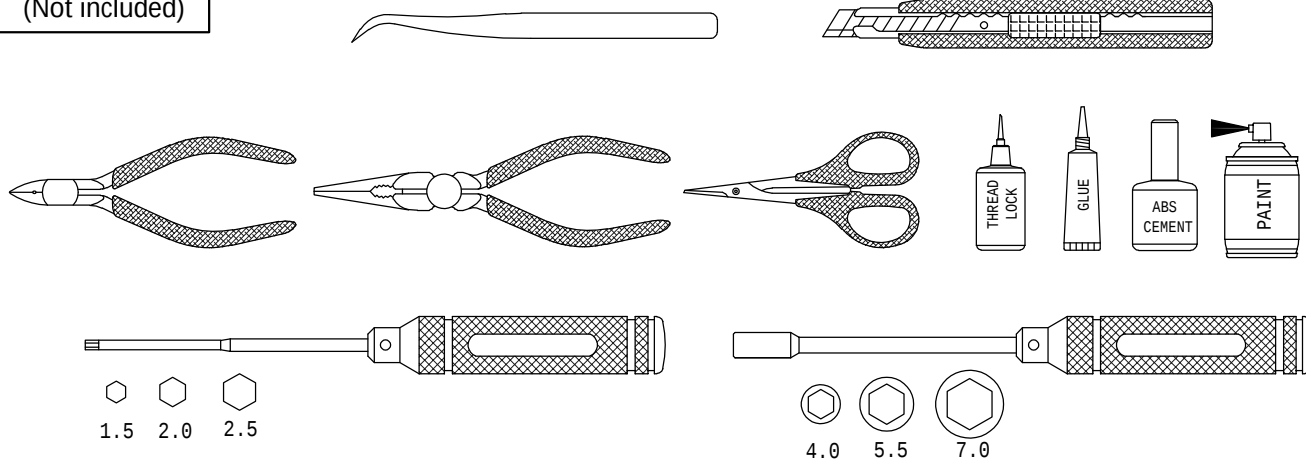
- 2.1 Ensure that all screws are properly tightened. Use thread-lock to secure any metal to metal contacts- especially for components designed to withstand torque (servo mounts, motor mount, drive shaft grub screws etc.).
- 2.2 Always check the battery voltage for both the transmitter and vehicle prior 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.

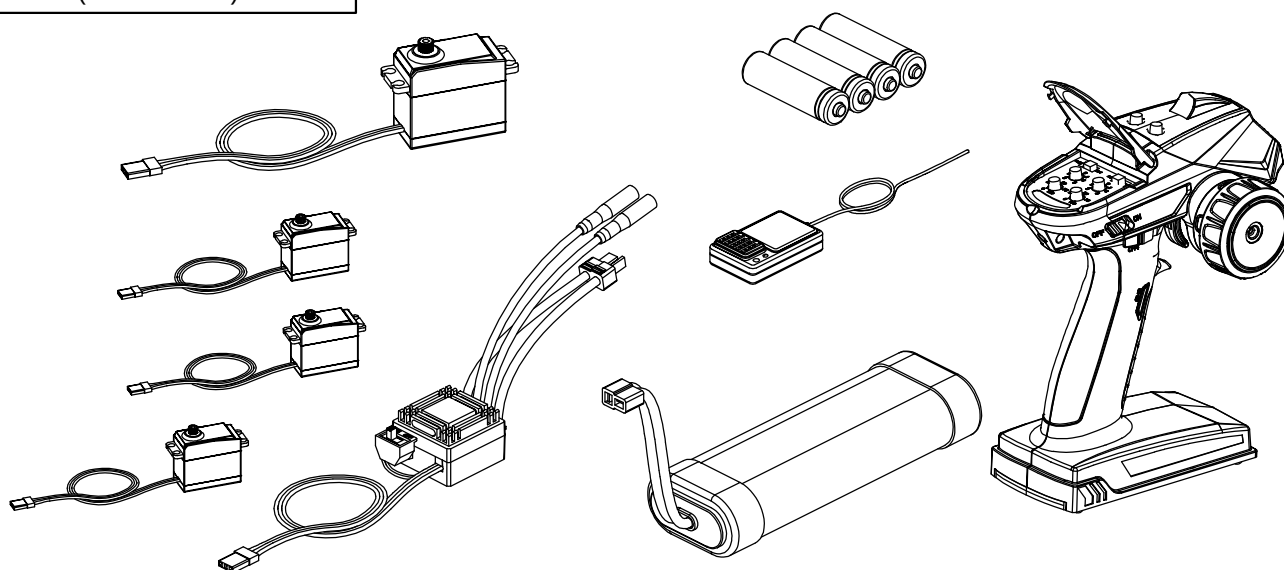
TOOLS

(Not included)



Electronic equipment

(Not included)



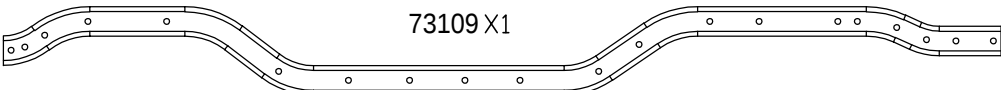
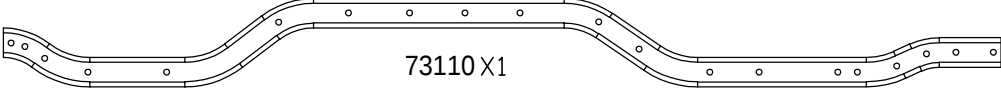
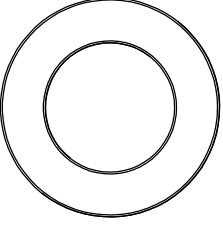
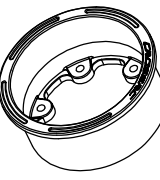
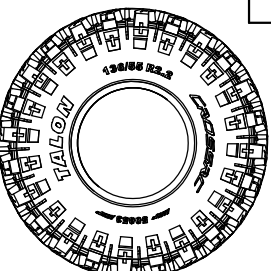
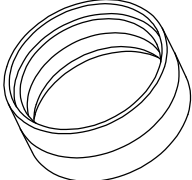
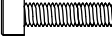
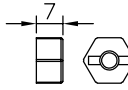
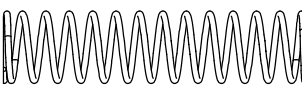
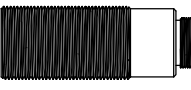
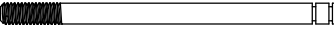
EMO X Assembly Remind

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 41 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:

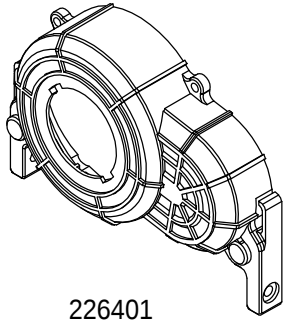
Name	Specifications	Remarks
Remotes controller	6 channels or Up	Waterproof connector is recommended
Servo	Steering servo $\geq 25\text{KG}$	High pressure standard Servo in waterproof
	Shift servo $\geq 3\text{KG} \times 3$	For the size of medium Servo, please refer to the configuration drawing below
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

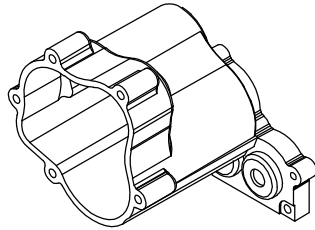
 		 	
BAG(A)		EMOX1	
 		 	
		 	
  		  	
BAG(B)		EMOX1	
  		  	
  		  	
 		  	
			

BAG(C)

EMOX1



226401



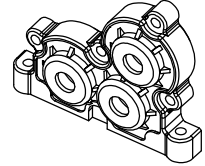
226404



226402



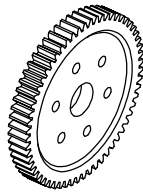
226403



226405



45123



226501(60T)



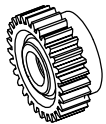
41768(20T)



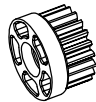
41750



41749 X2



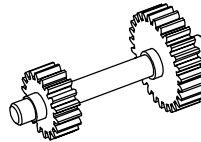
36207



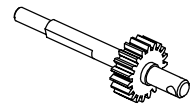
36206



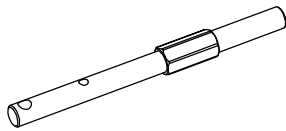
33903



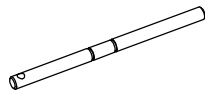
41748



41747



42234



42235



44212



44213



44214



74016

13001

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

42236

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

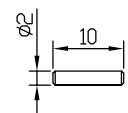
42203

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



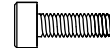
M3x6 X6

11207



M3x10 X7

11107



M3x10 X2

11401



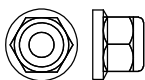
M3x4 X1

11315



M2.5x6 X3

12304



M4 X1



41834 X1



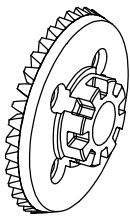
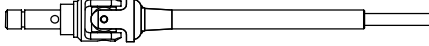
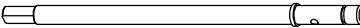
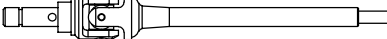
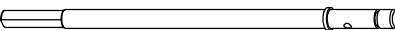
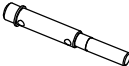
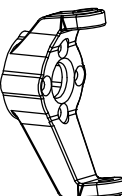
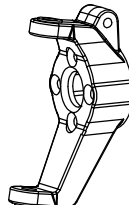
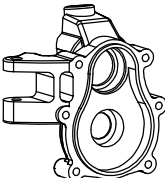
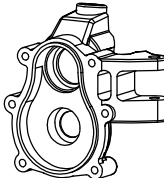
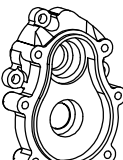
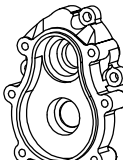
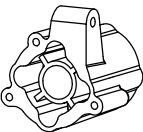
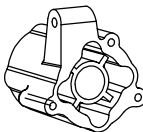
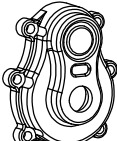
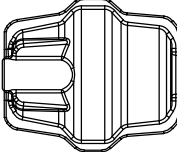
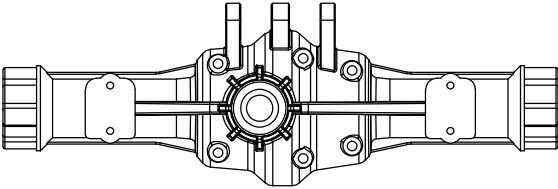
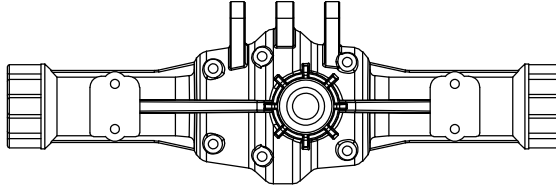
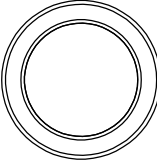
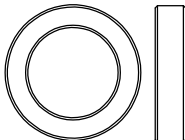
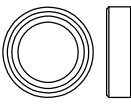
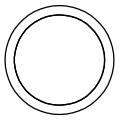
41307 X1

15012

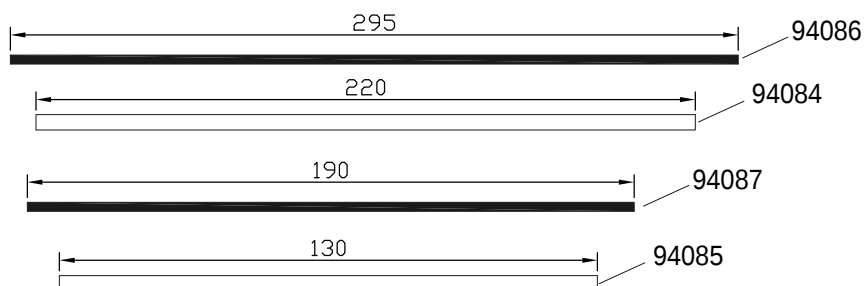
 $\varnothing 5 \times \varnothing 10 \times 4$ X11

15014

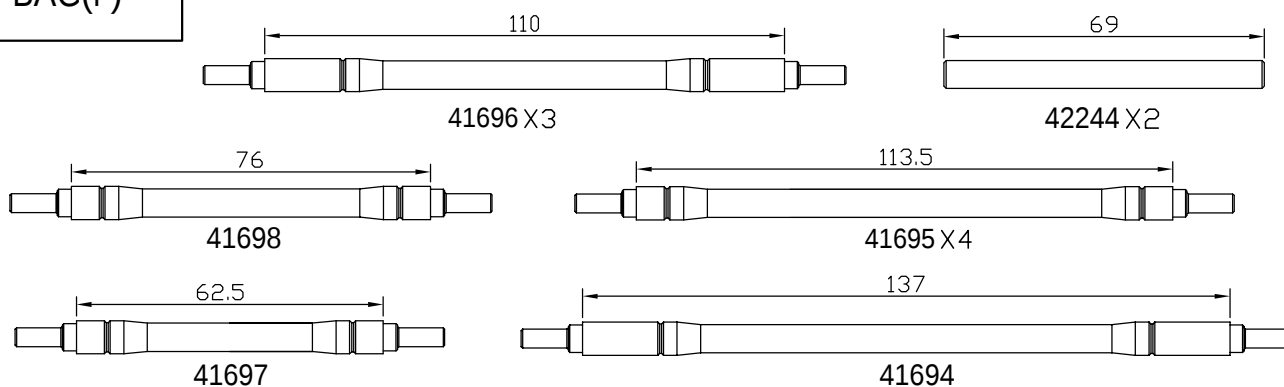
 $\varnothing 5 \times \varnothing 8 \times 2.5$ X4

BAG(D)			EMOX1					
								
33906 X4	33907 X8	36201 X2	36202 X2	36203 X4	36204 X4	36205 X2	44215 X2	41838 X2
								
95091			42241			42243 X2		
								
95092			42242			42223 X4		
						42237 X4		
								
226701	226702	226703	226704	226705	226706			
								
226707	226708	226709 X4	226710 X4	226711 X2	226602 X2			
								
226601			226603					
								
15015	15016	15018	15012	75026	72007	13002		
φ15xφ21x4 X2	φ12xφ18x4 X2	φ8xφ12x3.5 X2	φ5xφ10x4 X18	φ12xφ15x0.2 X2	φ5xφ8x0.3 X2	φ3.8xφ9.2x0.6 X6		
								
M3x4 X4	M2.5x8 X8	M2.5x10 X18	M2.5x10 X38	M2.5x20 X12	M3x10 X4	φ2x14 X2	φ2x7.5 X8	

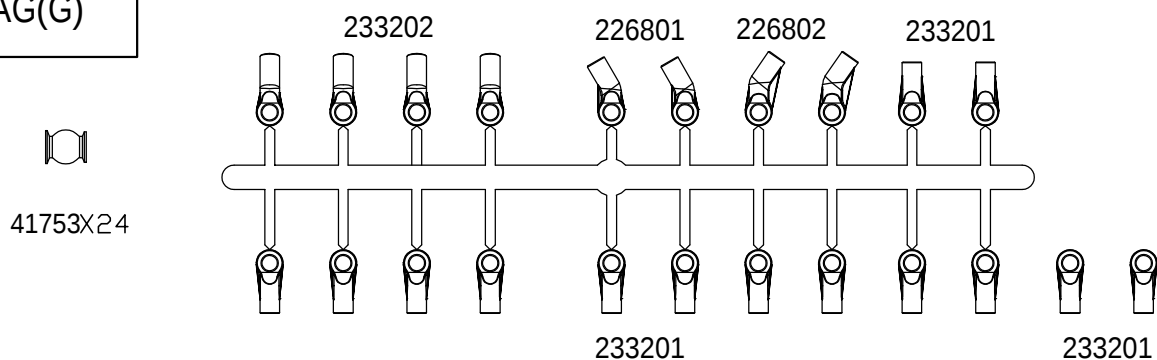
BAG(E)



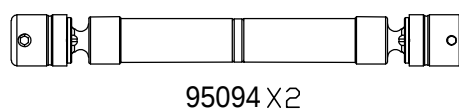
BAG(F)



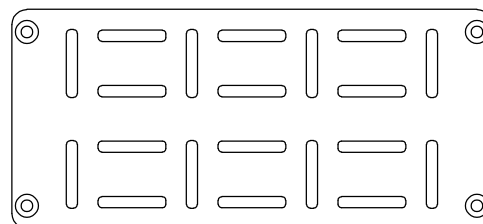
BAG(G)



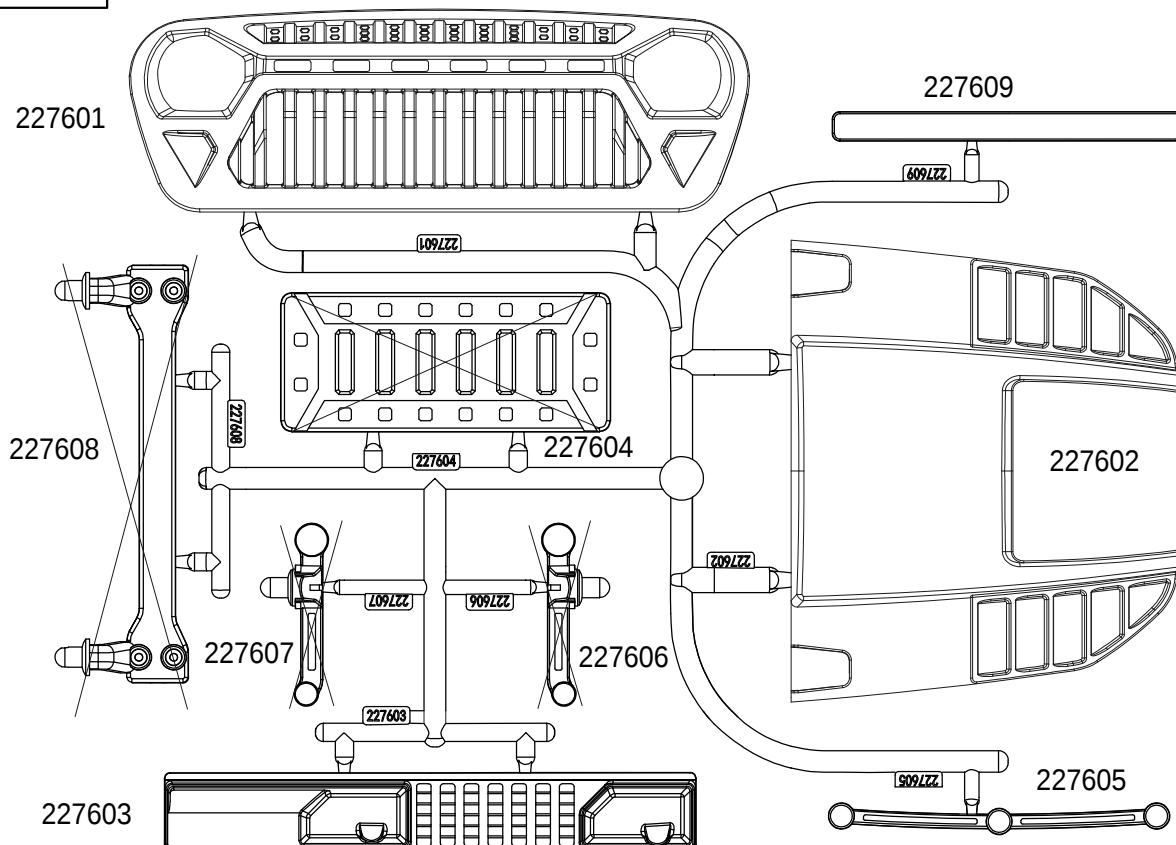
BAG(H)



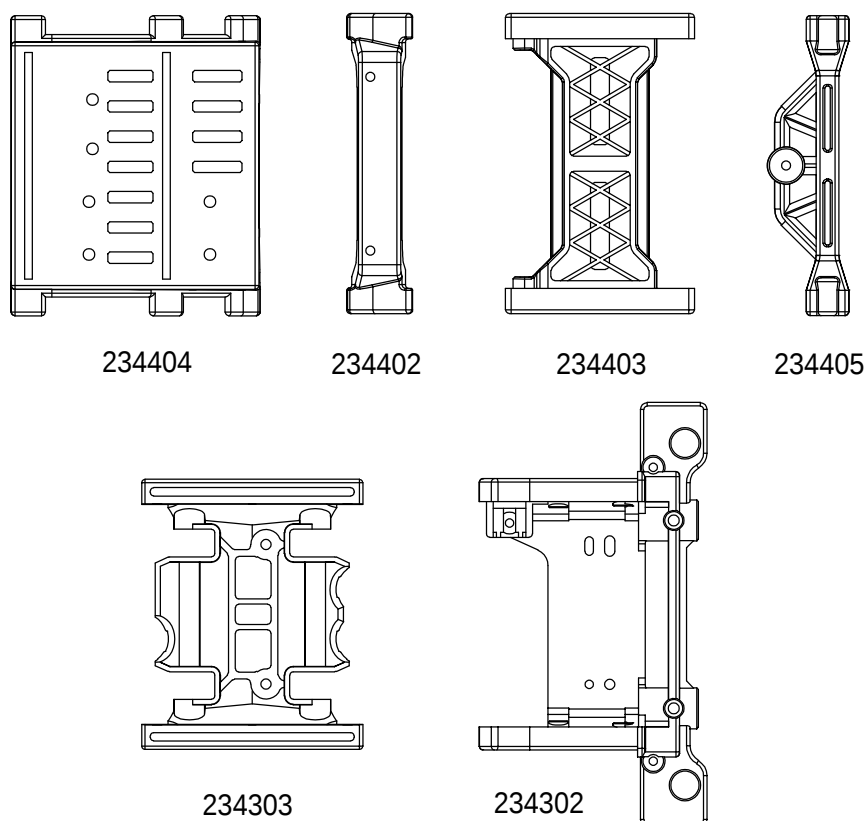
BAG(I)



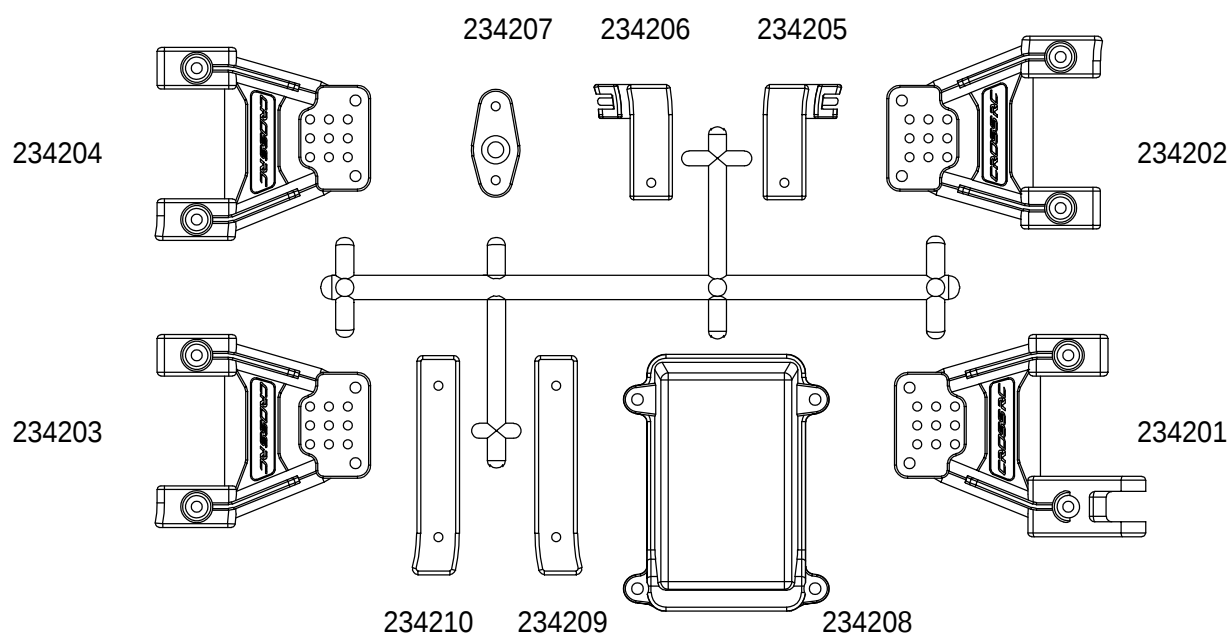
BAG(J)



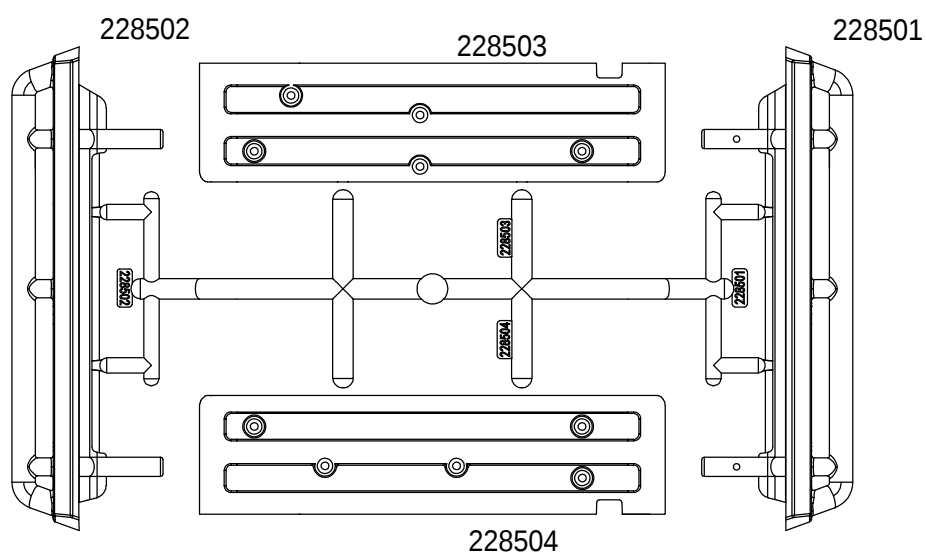
BAG(K)



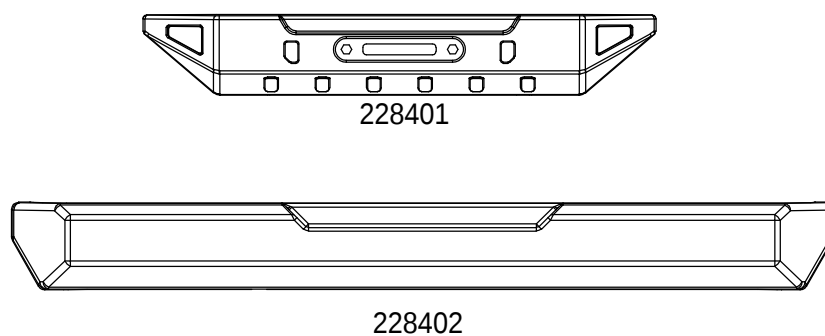
BAG(L)

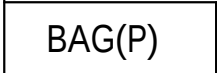


BAG(M)

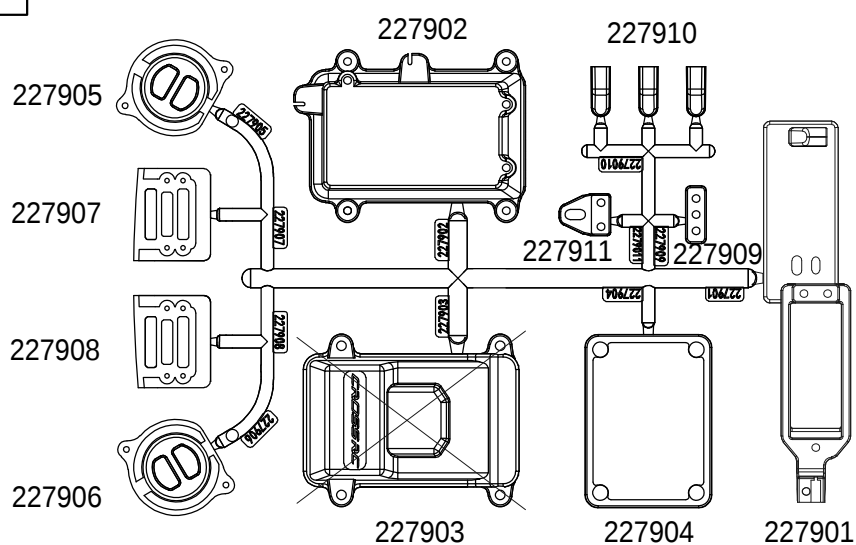


BAG(N)

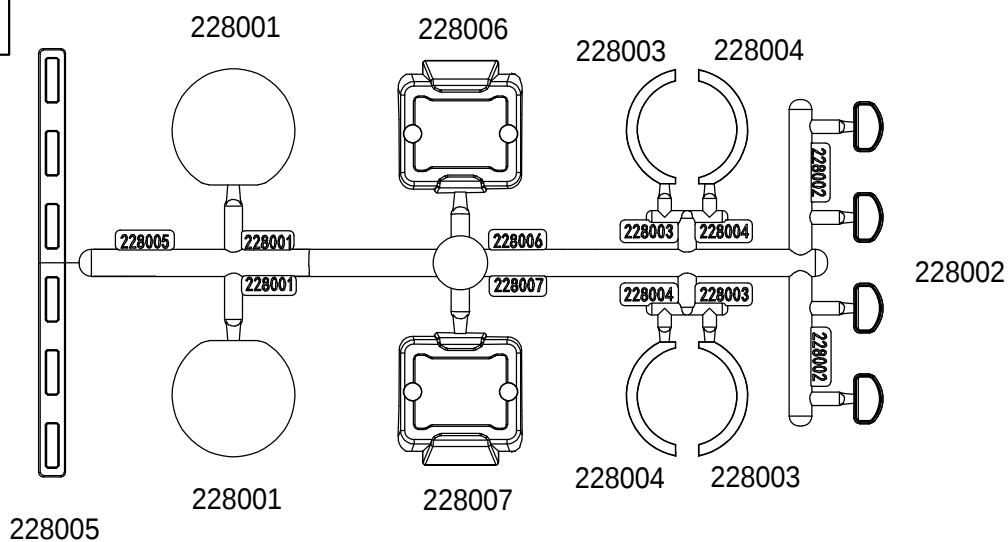




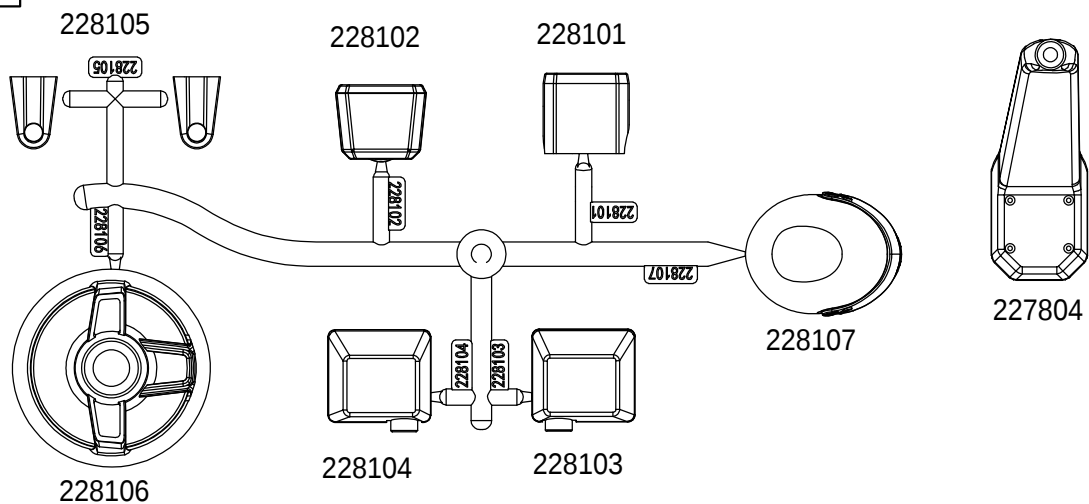
BAG(Q)



BAG(R)



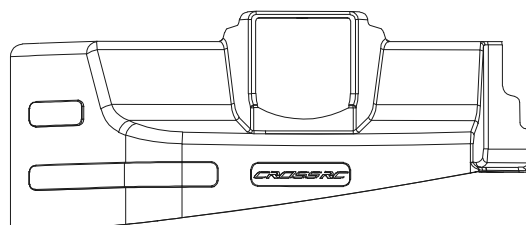
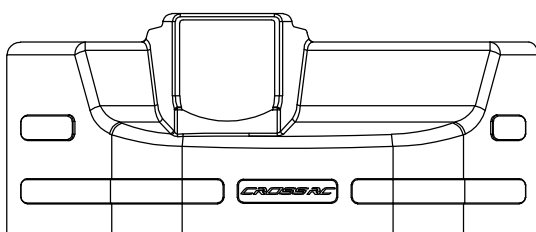
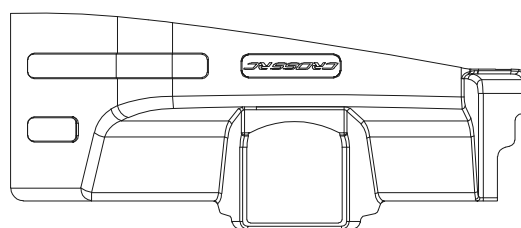
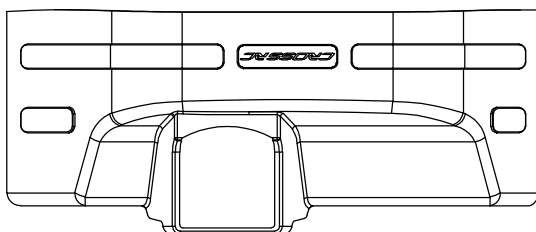
BAG(S)



BAG(T)

227302

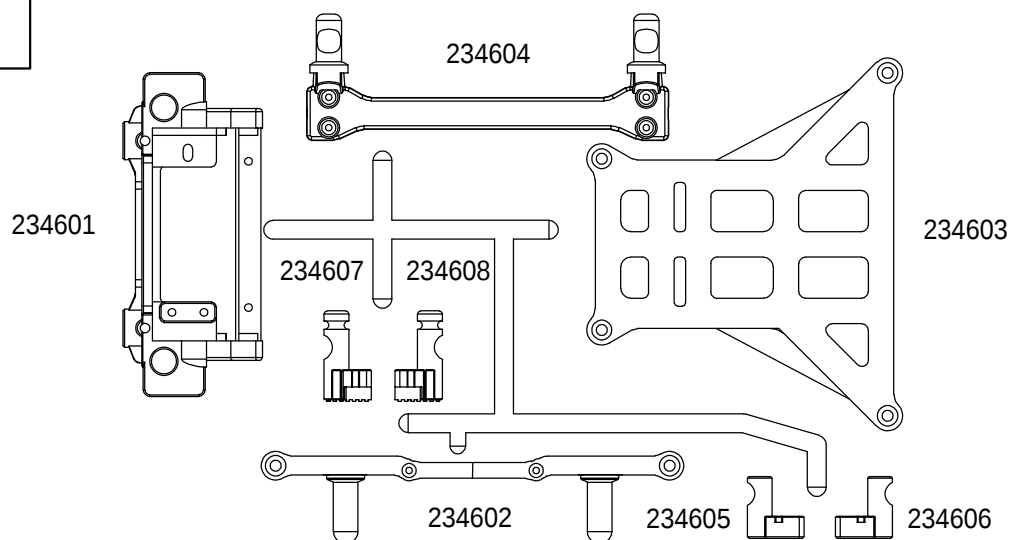
227201



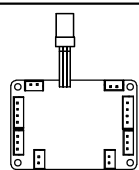
227301

227202

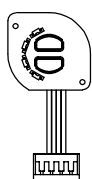
BAG(U)



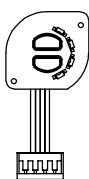
BAG(V)



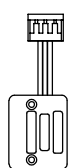
87143



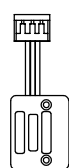
87144



87145



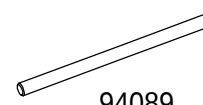
87146



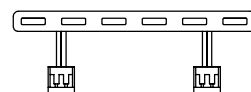
87147



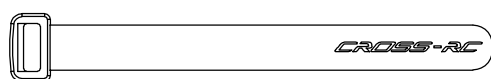
95096



94089

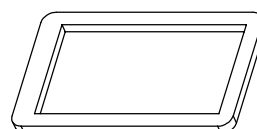


87148



91004 X1

71294



71293

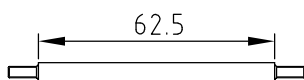
BAG(W)



41336 X4



41205



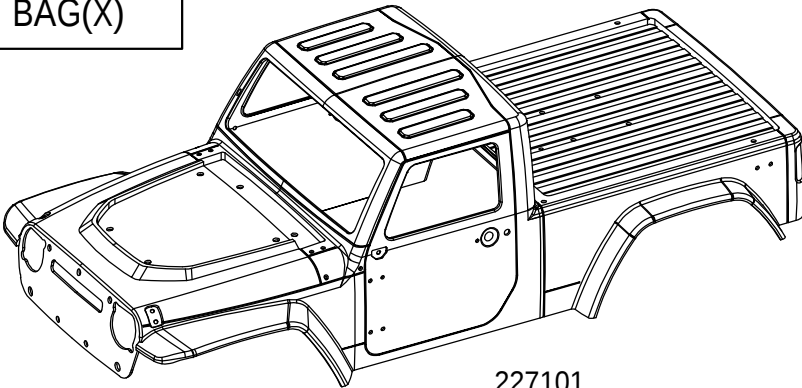
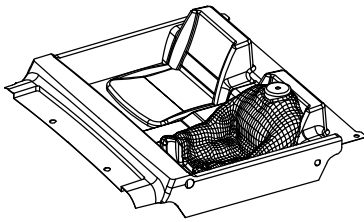
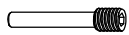
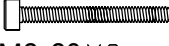
41780



41781



223903 X4

BAG(X)					
		227101		227102	
BAG(Y)		11205  M3x6 X2	11211  M3x18 X7	11106  M3x8 X1	11401  M3x4 X1
11102  M2x6 X27	11206  M3x8 X11	11212  M3x20 X4	11239  M3x8 X20	11413  M4x13.5 X8	
11103  M2x8 X10	11207  M3x10 X31	11213  M3x22 X3	11303  M3x8 X14	42209  X2	
11104  M2x10 X4	11208  M3x12 X10	11214  M3x25 X5	14102  ø3xø7x0.5 X1	12203  M3 X1	
11126  M2x14 X2	11209  M3x14 X4	11215  M3x28 X4	11133  M2x20 X2		
11116  M2.5x12 X4	11210  M3x16 X10	11223  M3x30 X2	12307  M3 X4		
BAG(Z)					
		 91176 X2	 42231 X2	11227  M2.5x8 X3	12206  M2 X3
 44172 X1	 91175 X3	 41819 X2	 94056 X1	11401  M3x4 X3	
BAG(AA)					
11206  M3x8 X2	11210  M3x16 X2	14103  ø3.2xø9x1 X2	 201602 X2		

EMOX1

1

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

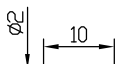
 $\phi 5 \times \phi 10 \times 4$ X1

11207

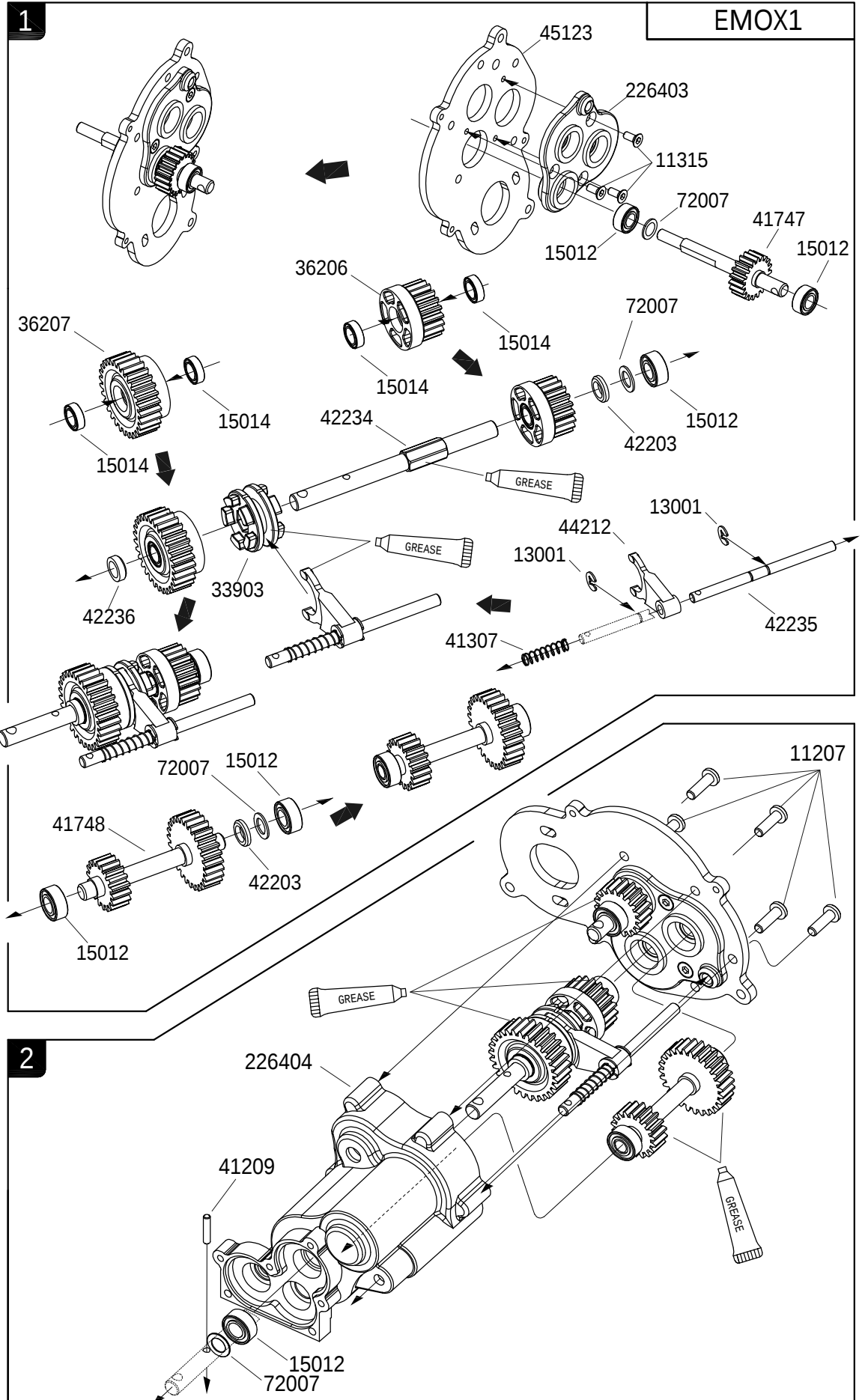


M3x10 X5

72007

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

41209 X1



2

3

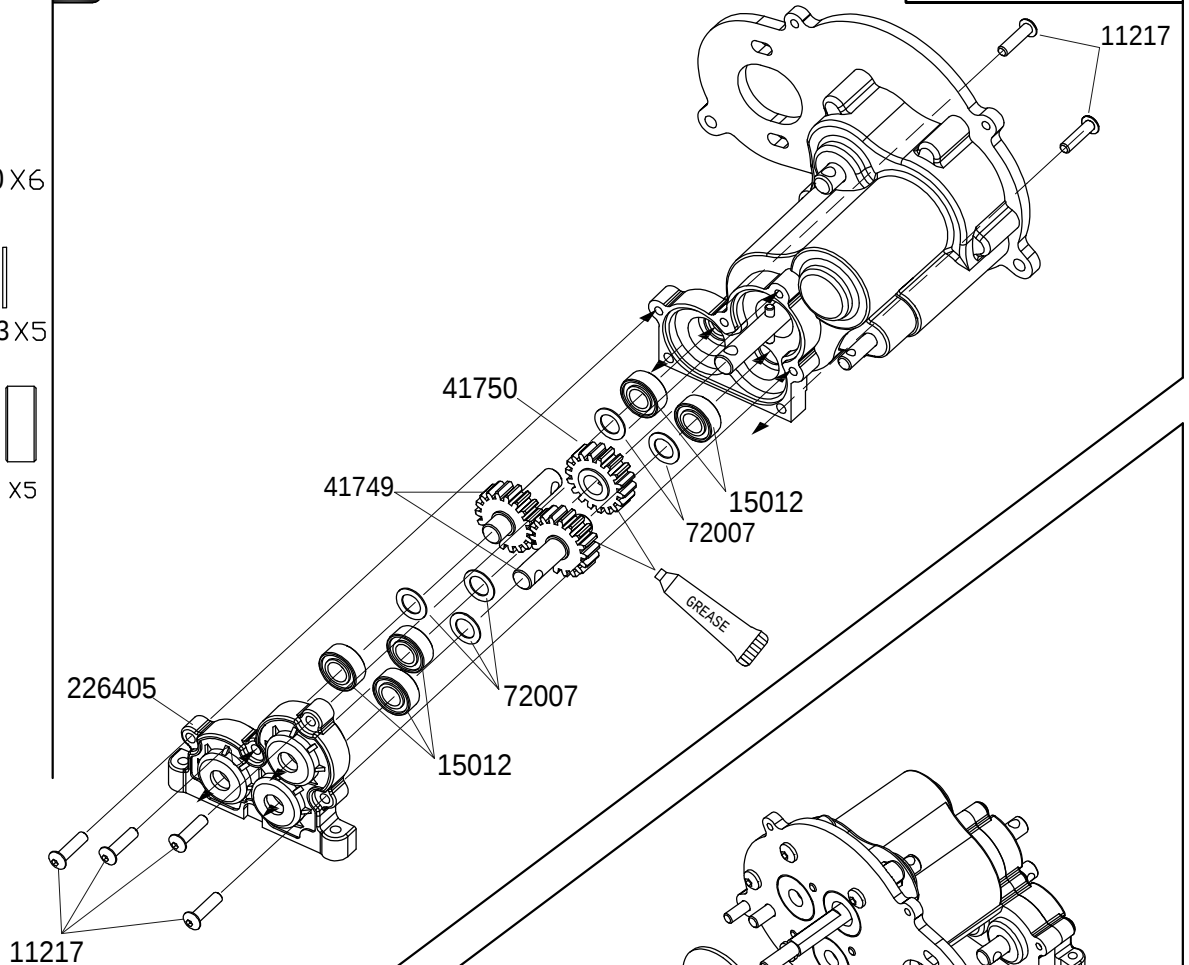
EMOX1

BAG(C)

11217 
M2.5x10 X6

72007 
ø5xø8x0.3 X5

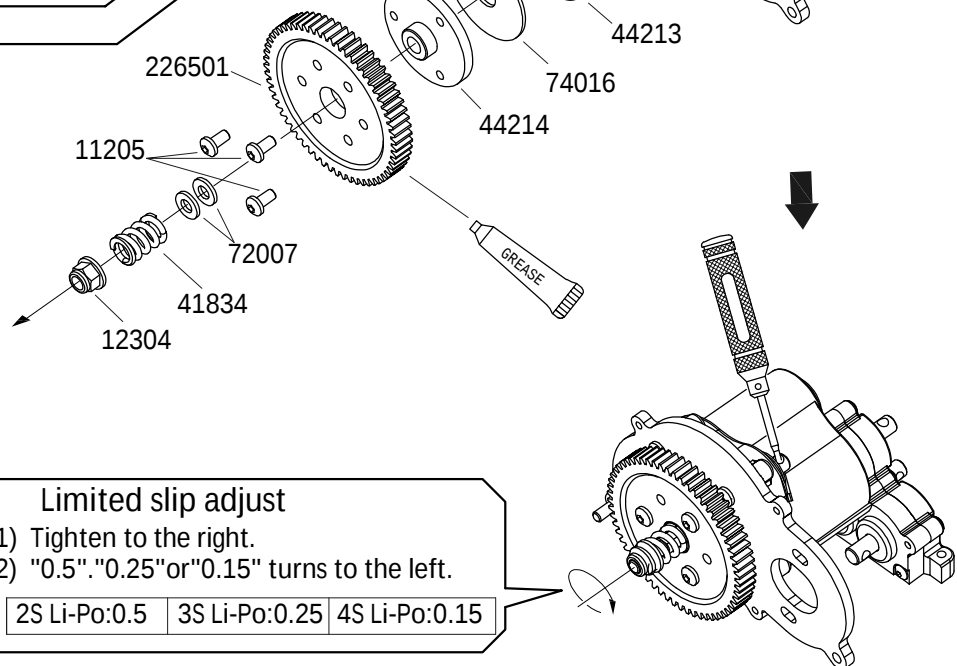
15012 
ø5xø10x4 X5



12304 
M4 X1

72007 
ø5xø8x0.3 X2

11205 
M3x6 X3



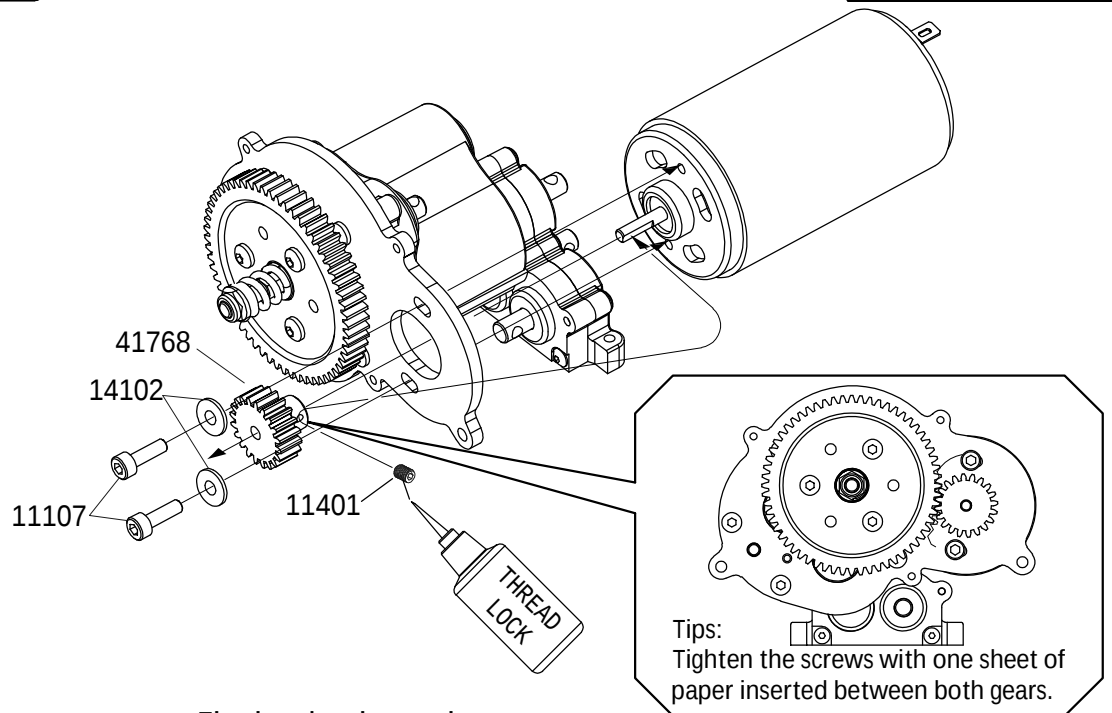
4

EMOX1

11401 
M3x4 X1

14102 
Ø3xØ7x0.5 X2

11107 
M3x10 X2



Final reduction ratio

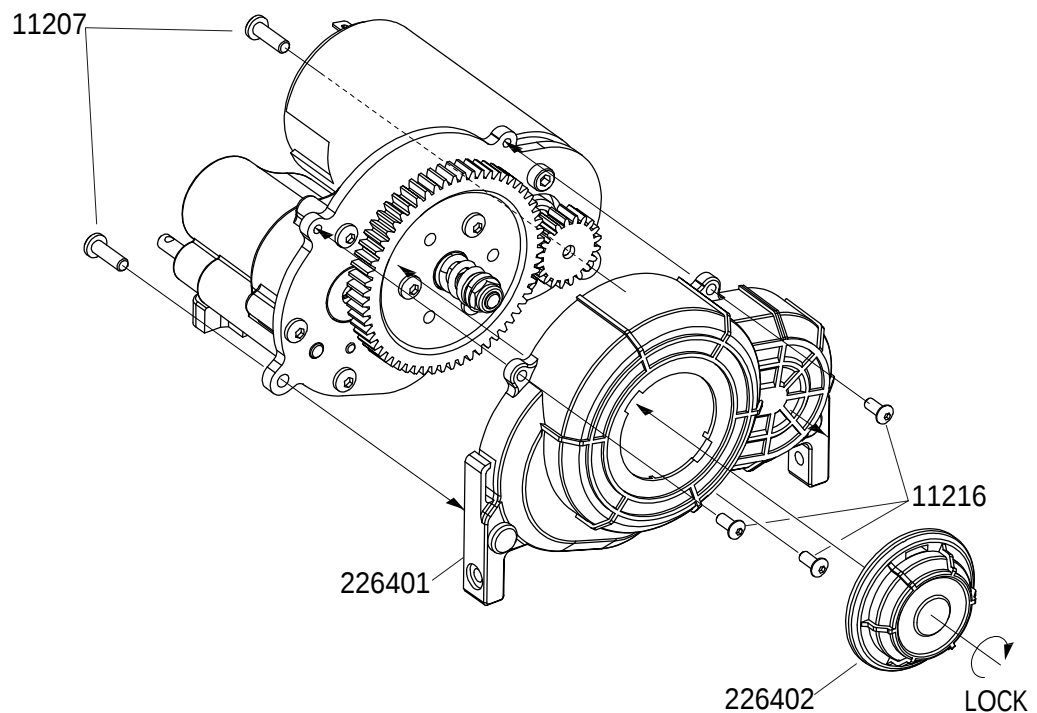
Motor gear	16T	17T	18T	19T	20T
Fast	22.1	20.8	19.6	18.6	17.8
Slow	48.3	45.4	42.9	40.6	38.9

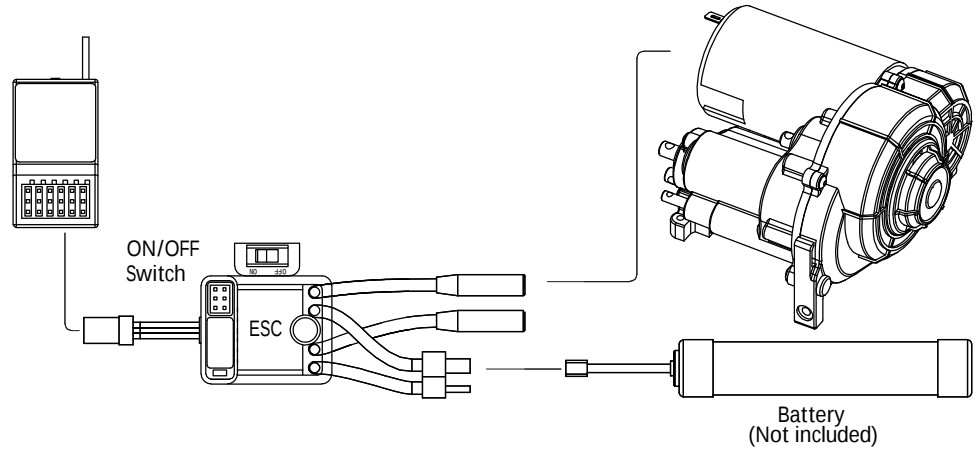
5

EMOX1

11207 
M3x10 X2

11216 
M2.5x6 X3





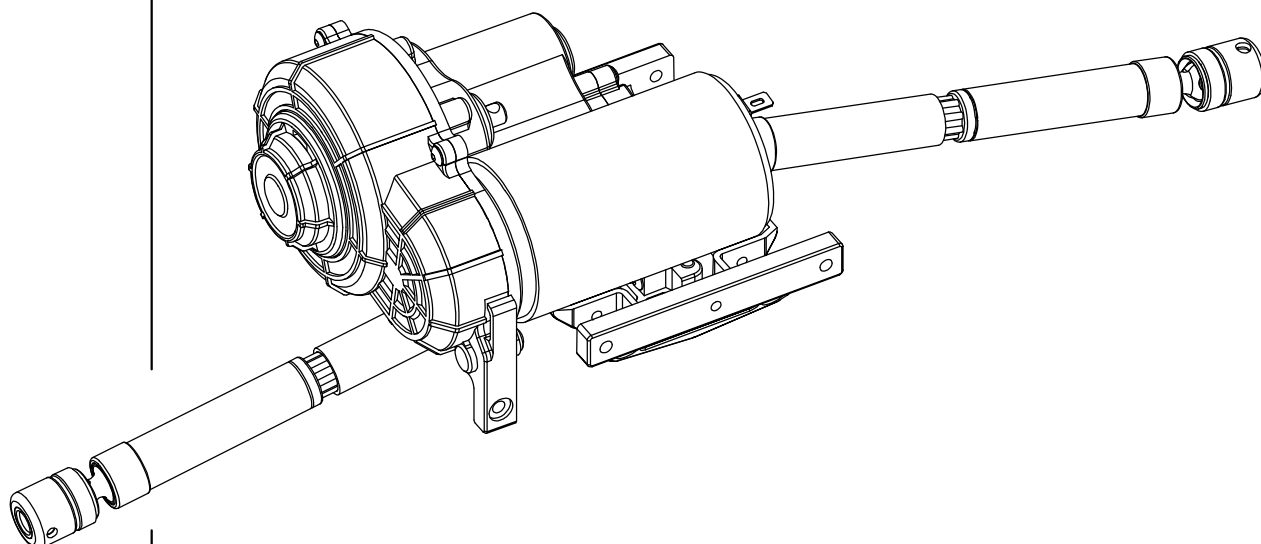
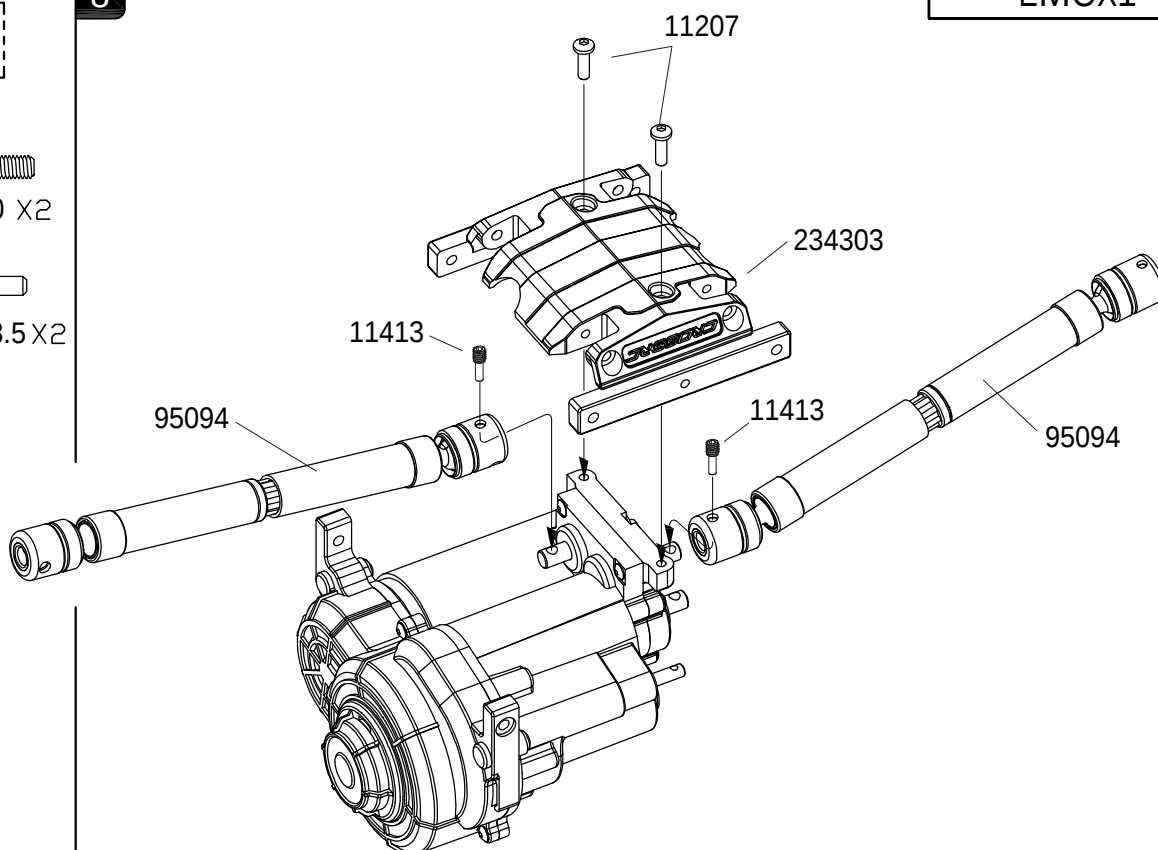
8

EMOX1

BAG(Y)

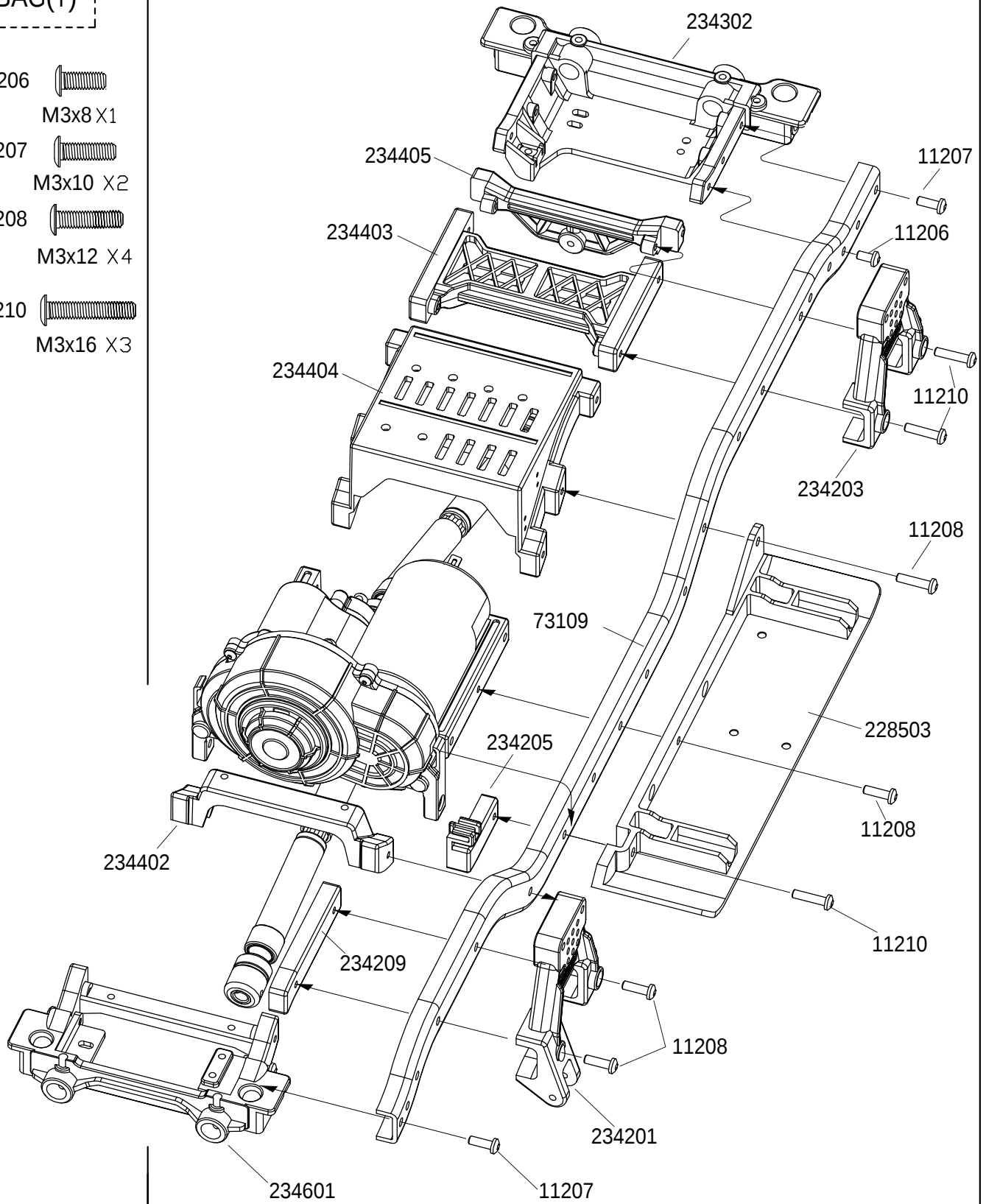
11207 
M3x10 X2

11413 
M4x13.5 X2



BAG(Y)

- 11206  M3x8 X1
- 11207  M3x10 X2
- 11208  M3x12 X4
- 11210  M3x16 X3

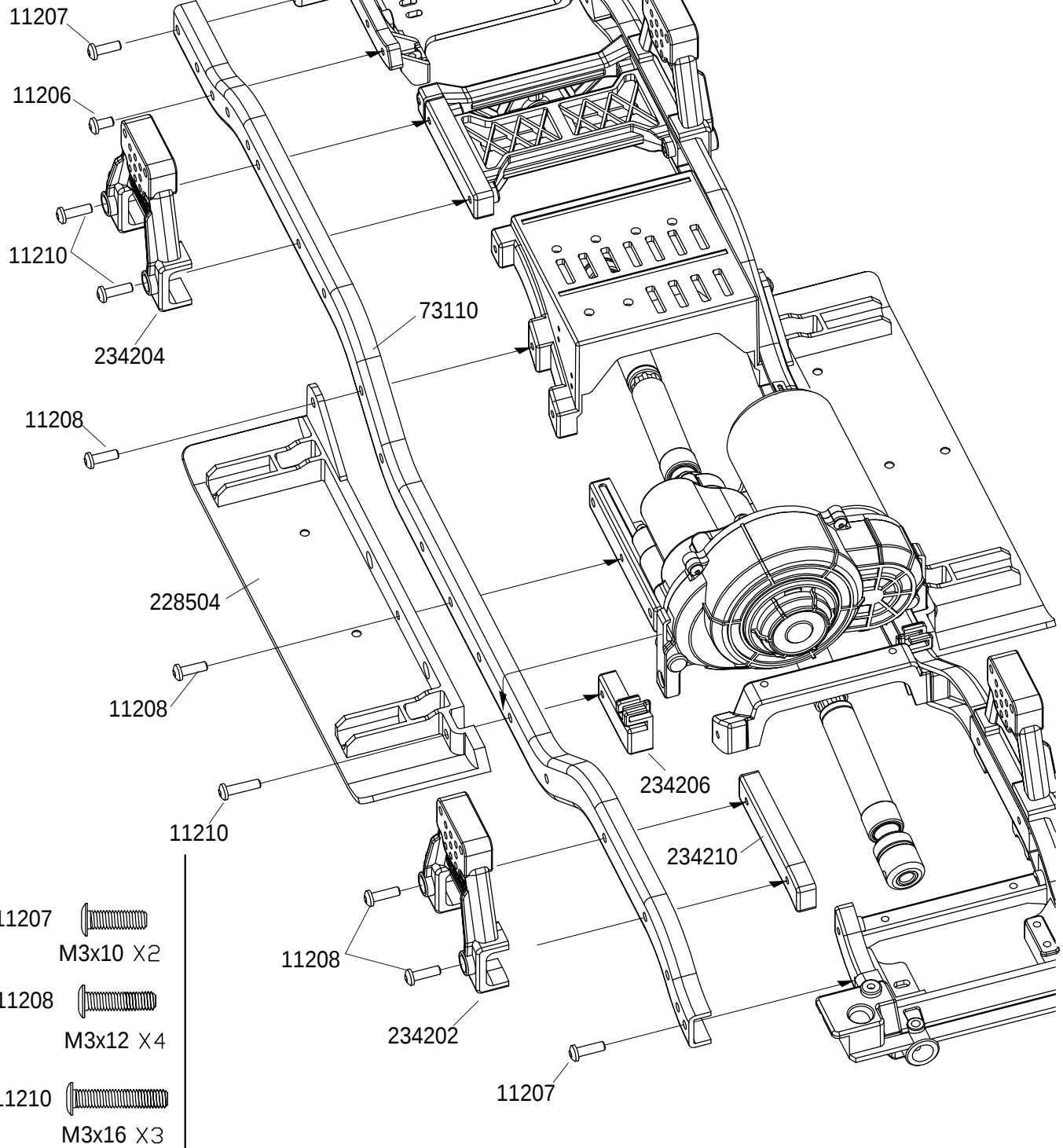


10

EMOX1

BAG(Y)

11206 
M3x8 X1

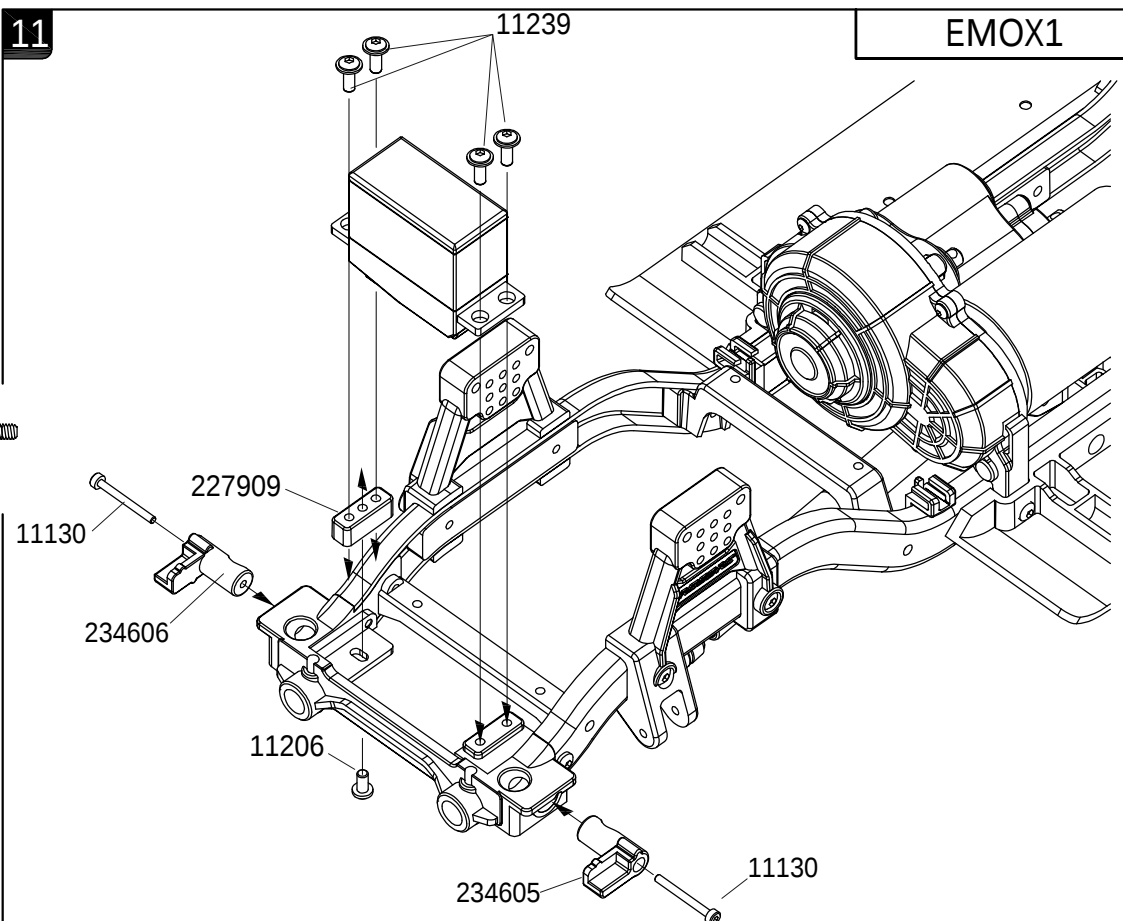


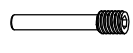
11**EMOX1****BAG(Y)**

11239 
M3x8 X4

11206 
M3x8 X1

11130 
M2x20 X2

**12****EMOX1**


42209 X2

11206 
M3x8 X2

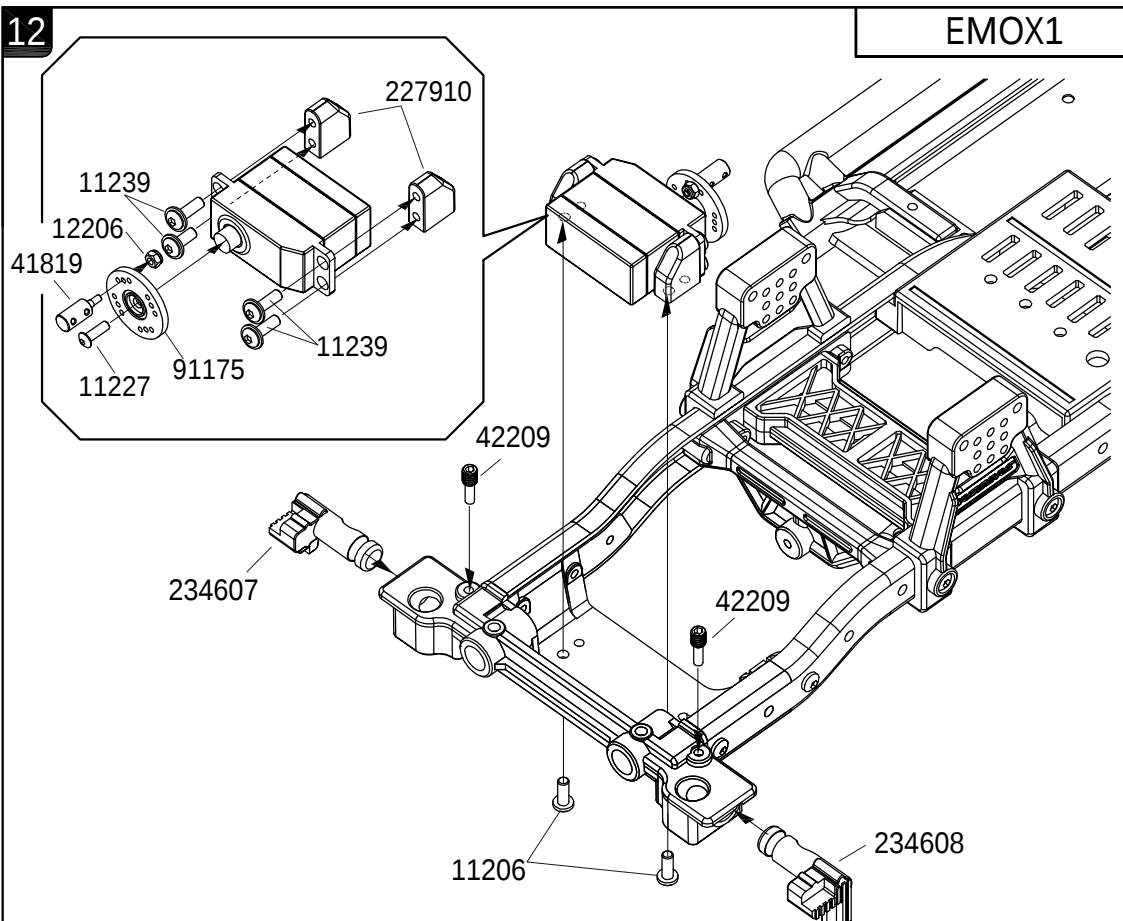
11239 
M3x8 X4

BAG(Z)

11227 
M2.5x8 X1

12206 
M2 X1


41819 X1

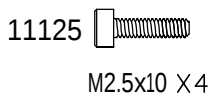
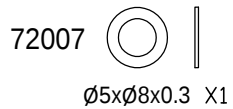
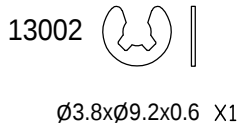
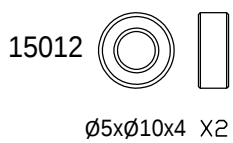
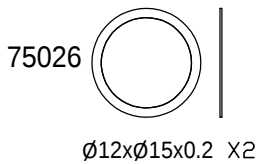
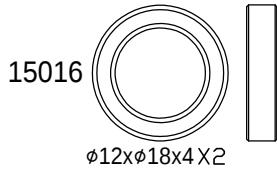
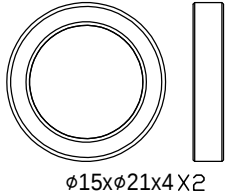


BAG(D)

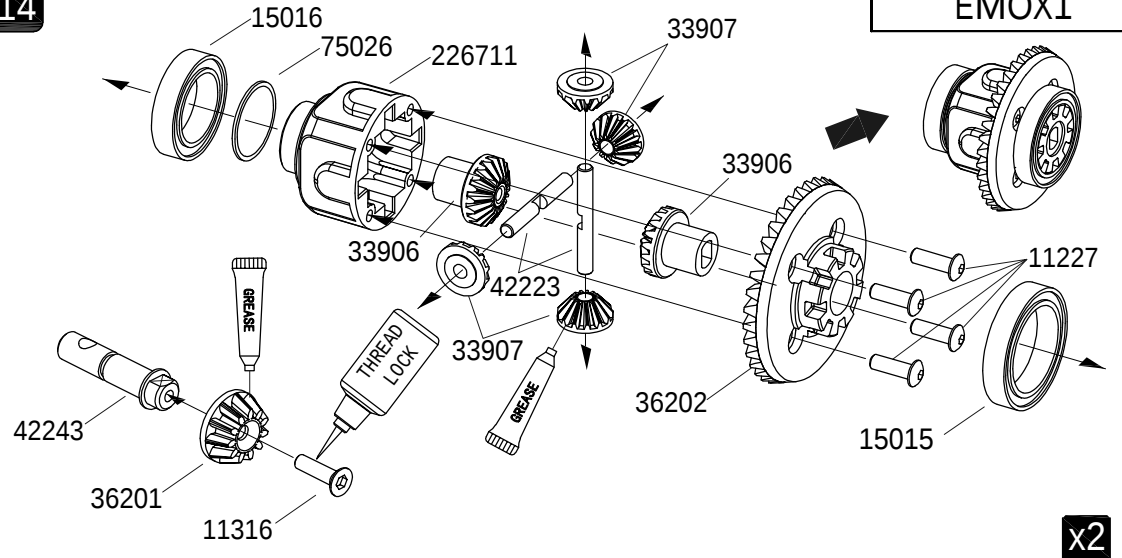
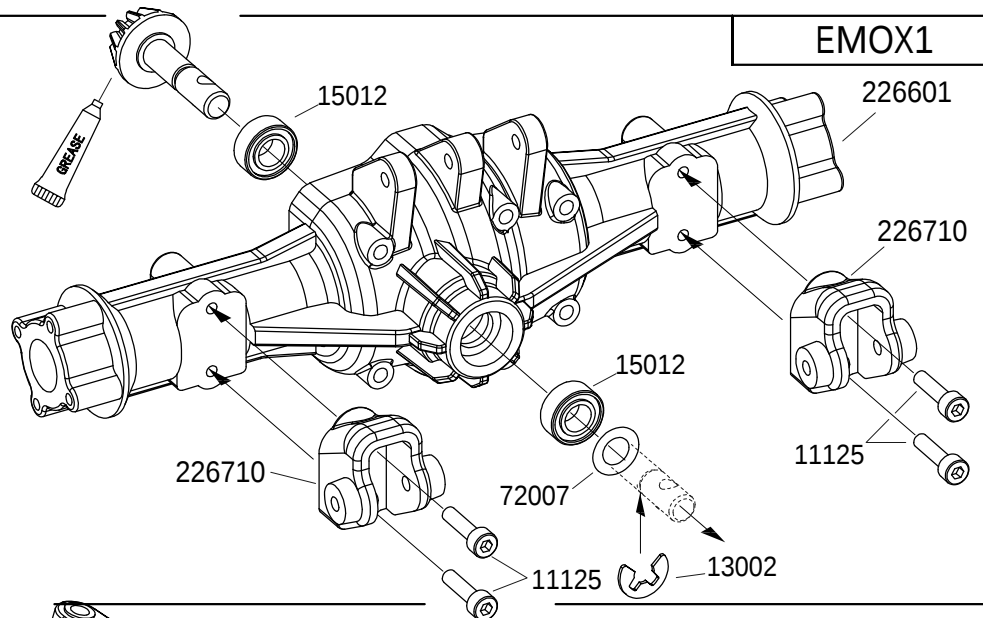
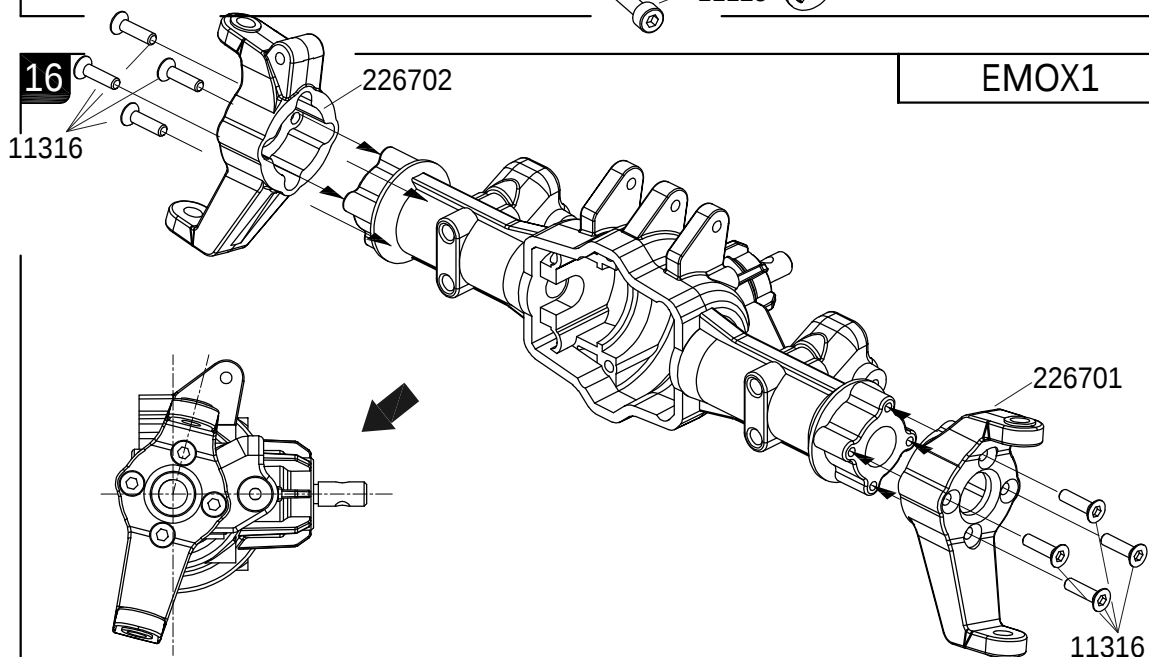
11316  M2.5x10 X2

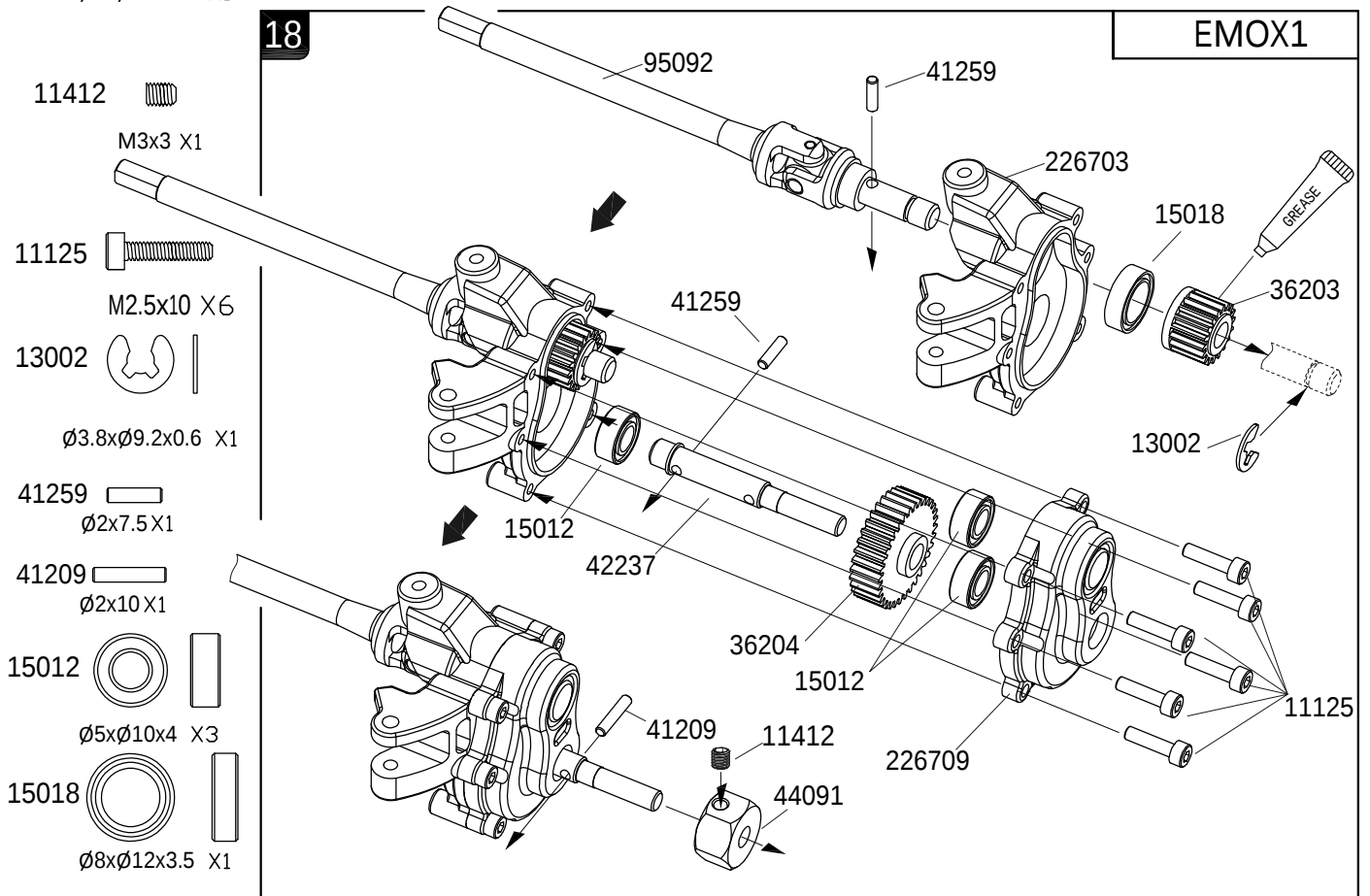
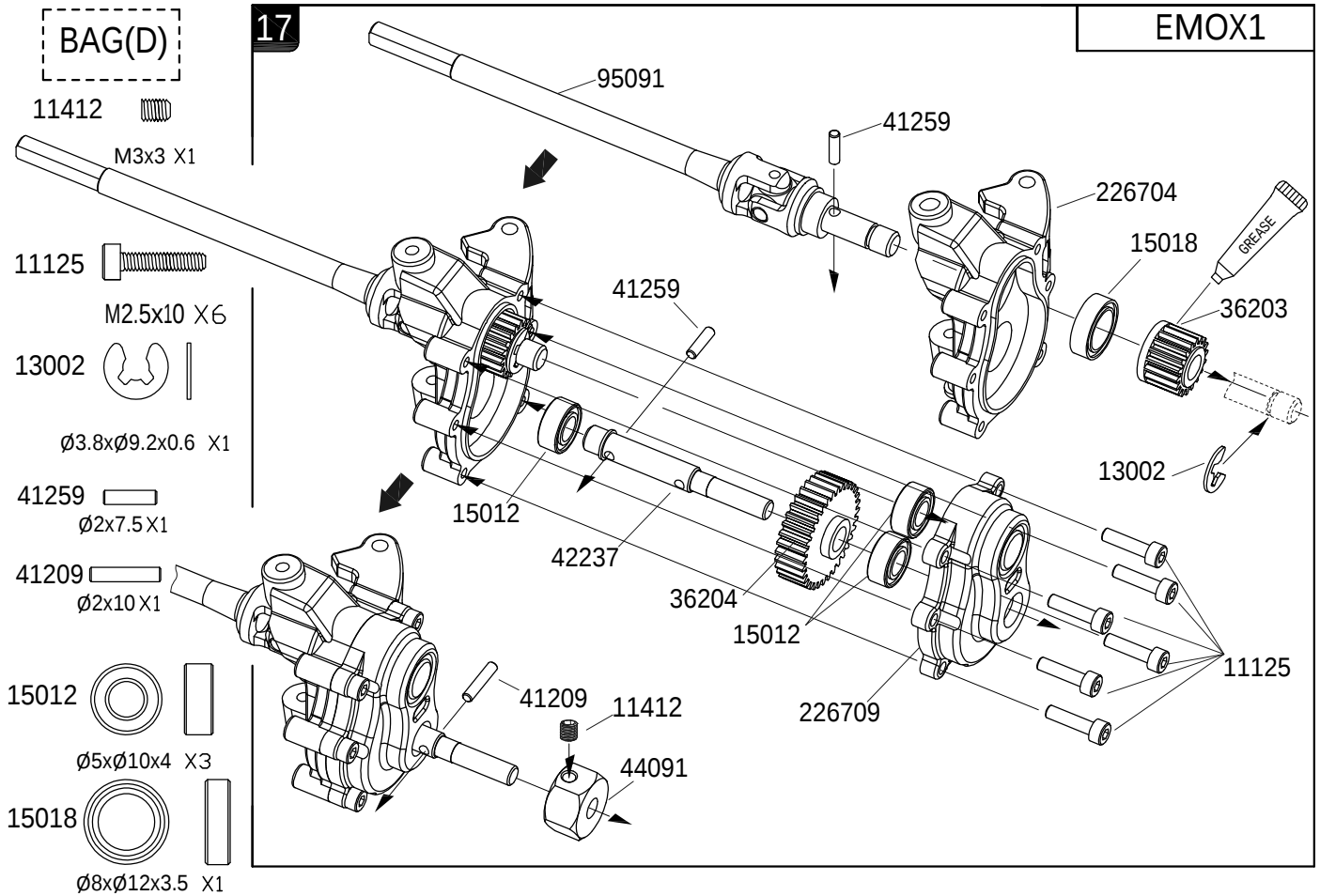
11227  M2.5x8 X8

15015

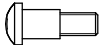


11316  M2.5x10 X8

14**EMOX1****15****EMOX1****16****EMOX1**

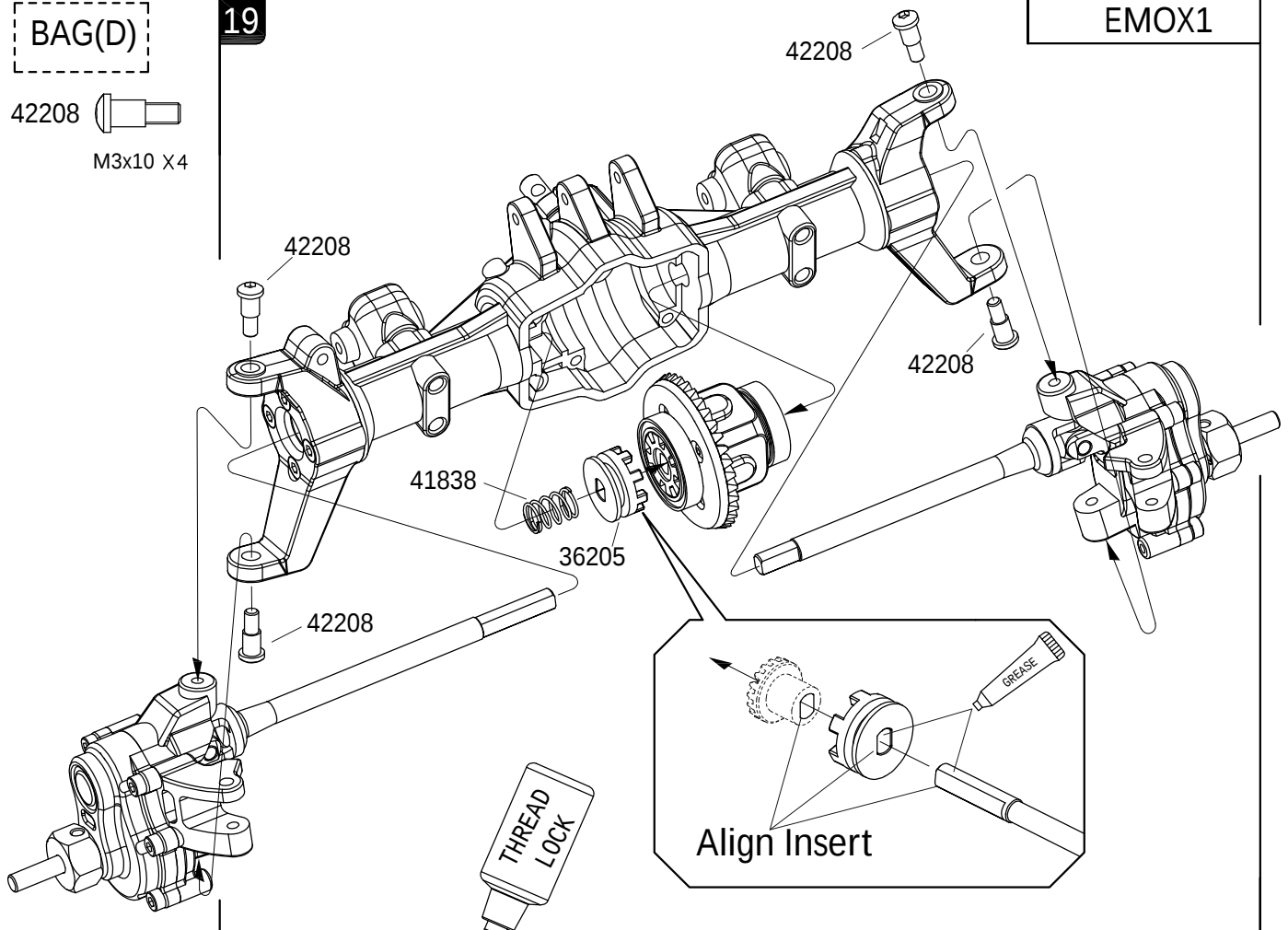


BAG(D)

42208 
M3x10 X4

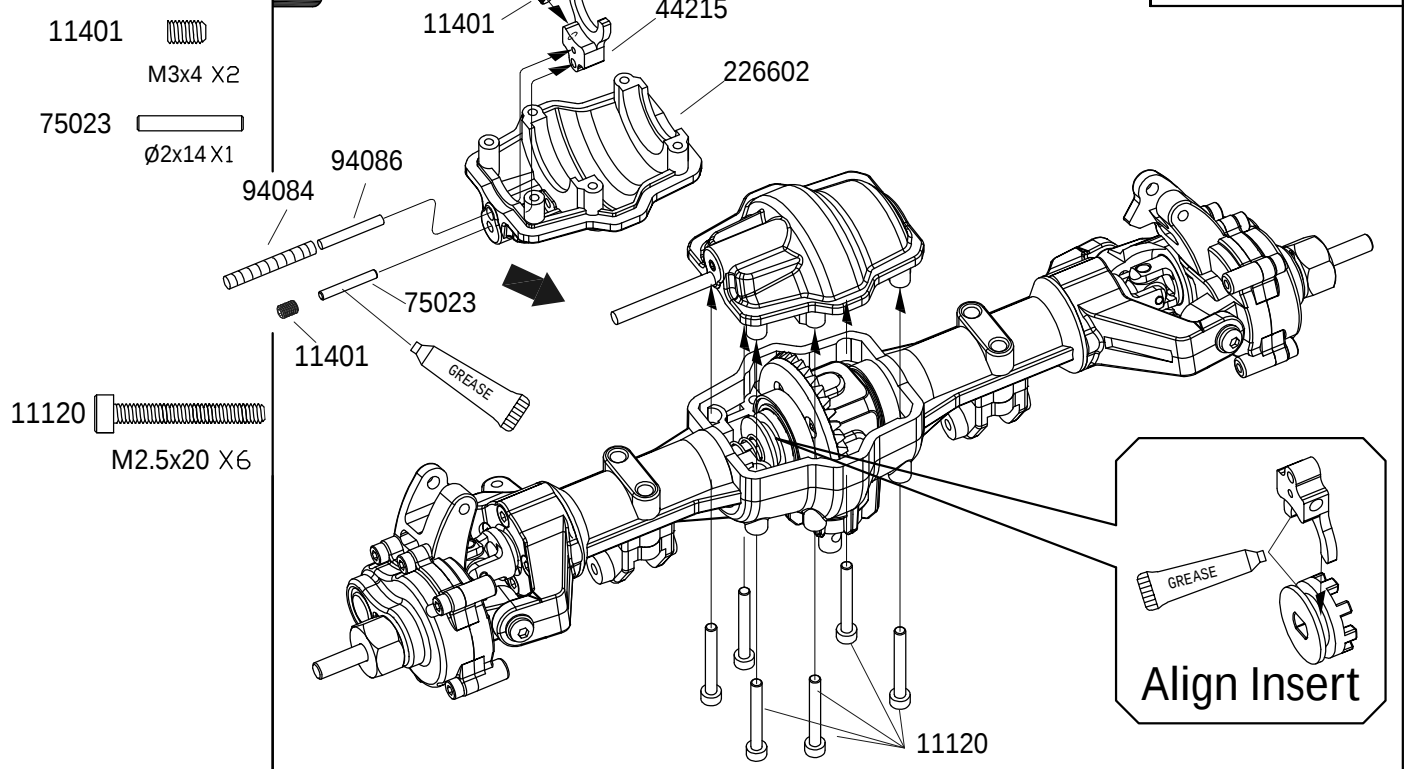
19

EMOX1



20

EMOX1



BAG(D)

21

EMOX1



15012
Ø5xØ10x4 X2



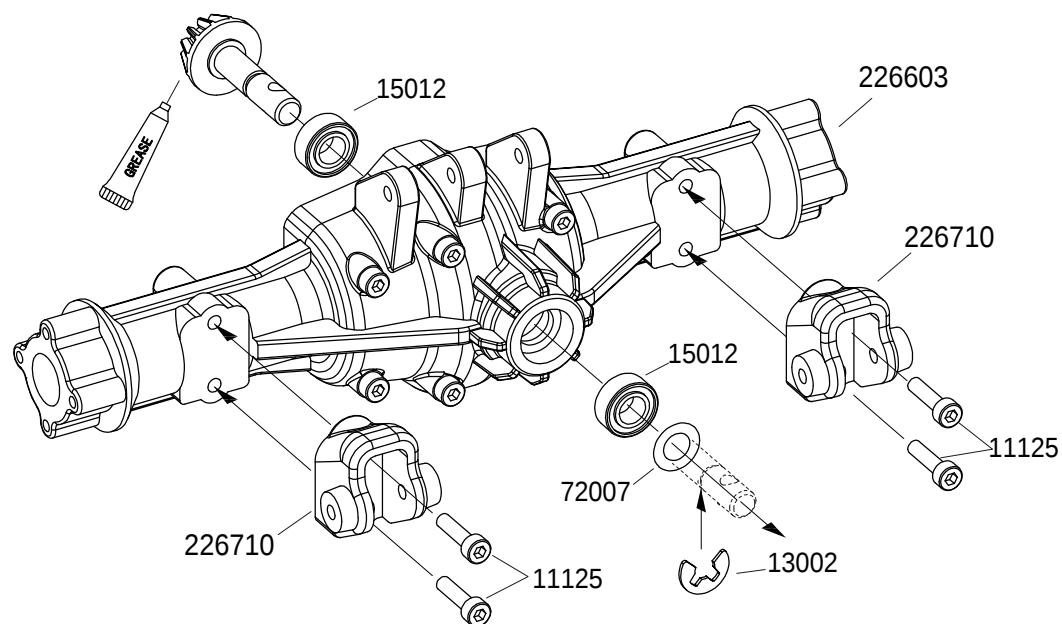
13002
Ø3.8xØ9.2x0.6 X1



72007
Ø5xØ8x0.3 X1

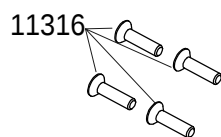


11125
M2.5x10 X4

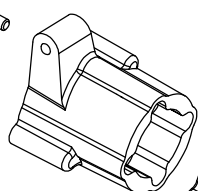


22

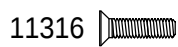
EMOX1



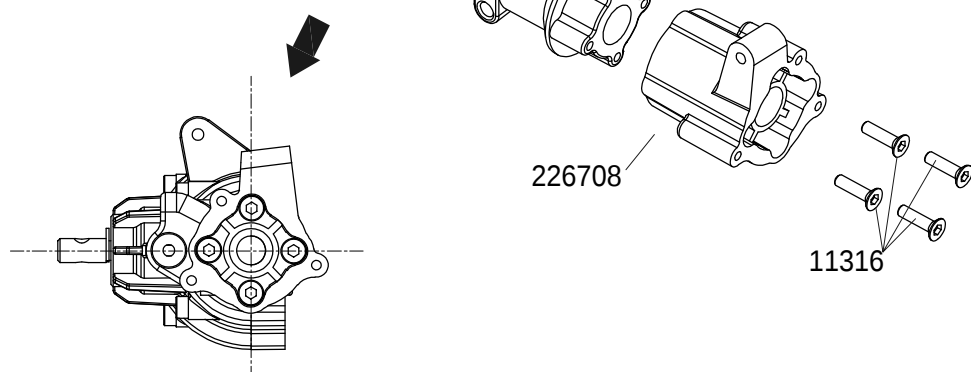
11316



226707



11316
M2.5x10 X8

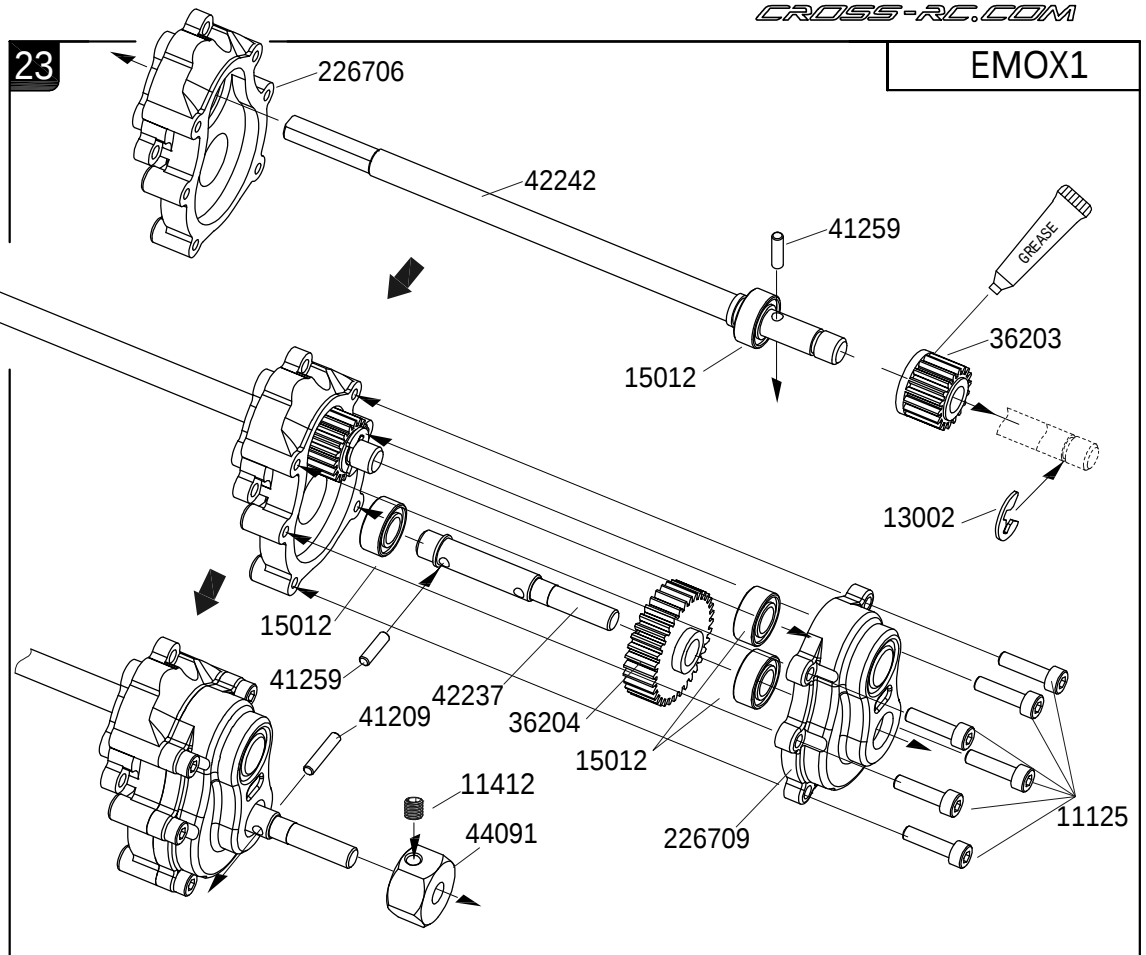


BAG(D)

23

EMOX1

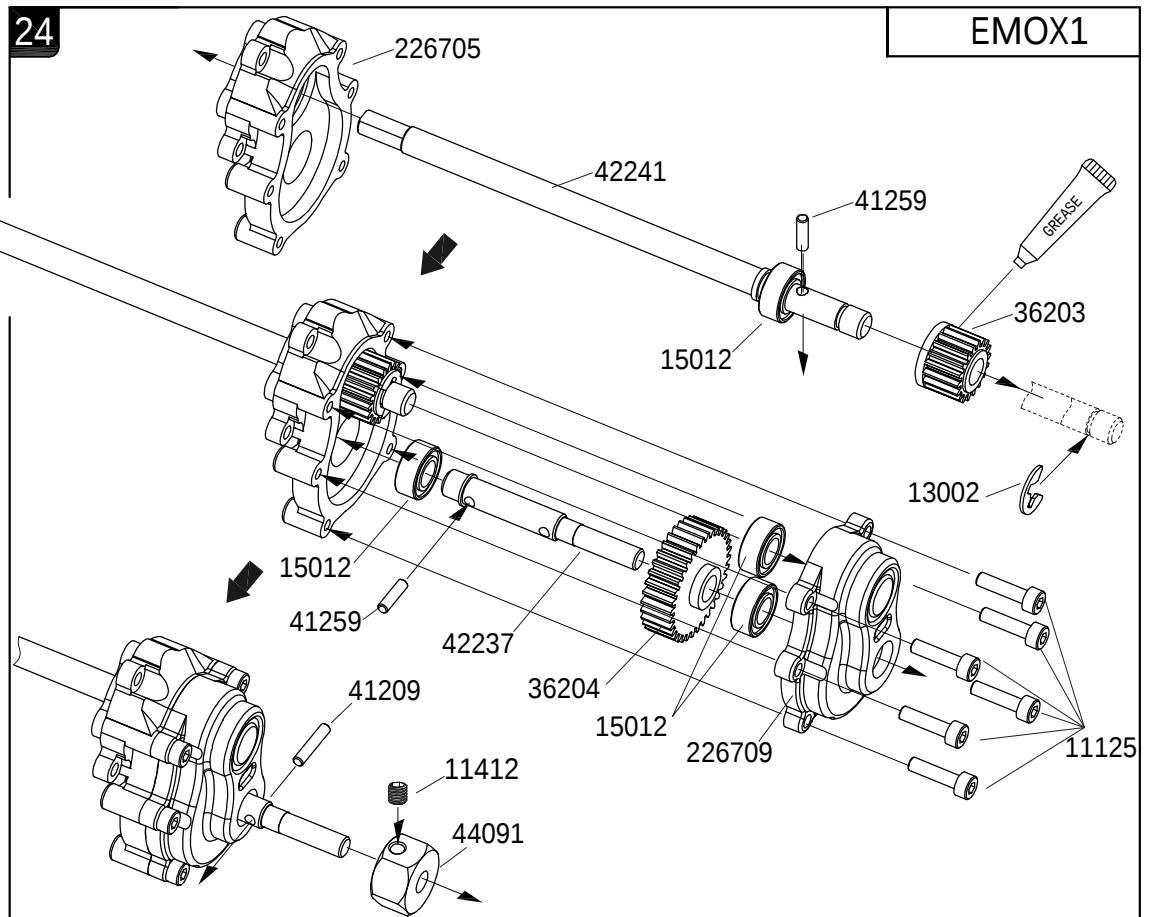
- 11412  M3x3 X1
- 15012   Ø5xØ10x4 X4
- 11125  M2.5x10 X6
- 13002  Ø3.8xØ9.2x0.6 X1
- 41259  Ø2x7.5 X1
- 41209  Ø2x10 X1



24

EMOX1

- 11412  M3x3 X1
- 15012   Ø5xØ10x4 X4
- 11125  M2.5x10 X6
- 13002  Ø3.8xØ9.2x0.6 X1
- 41259  Ø2x7.5 X1
- 41209  Ø2x10 X1



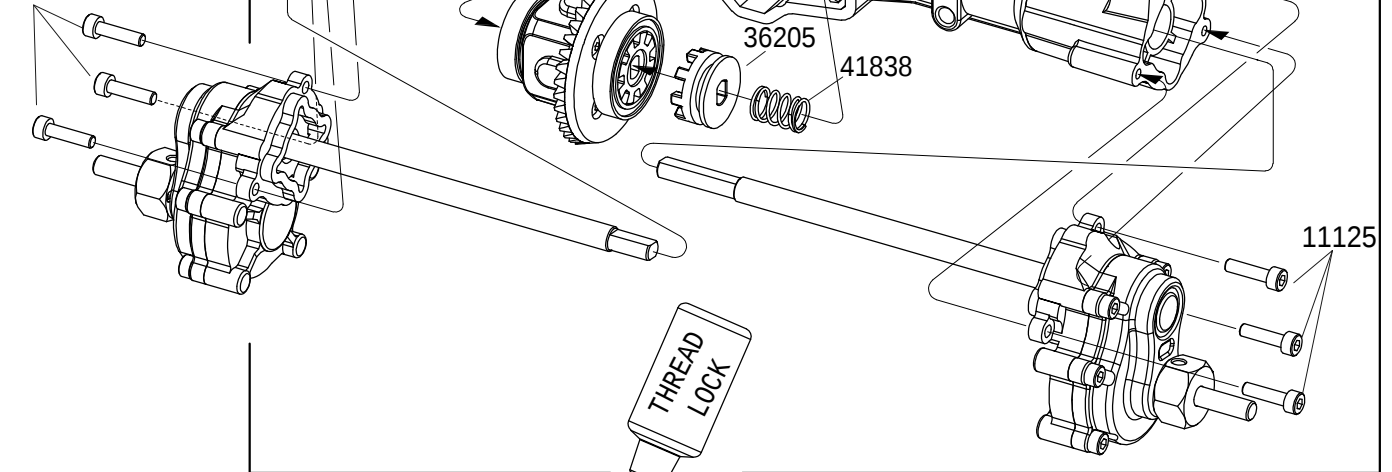
BAG(D)

25

EMOX1

11125  M2.5x10 X6

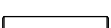
11125



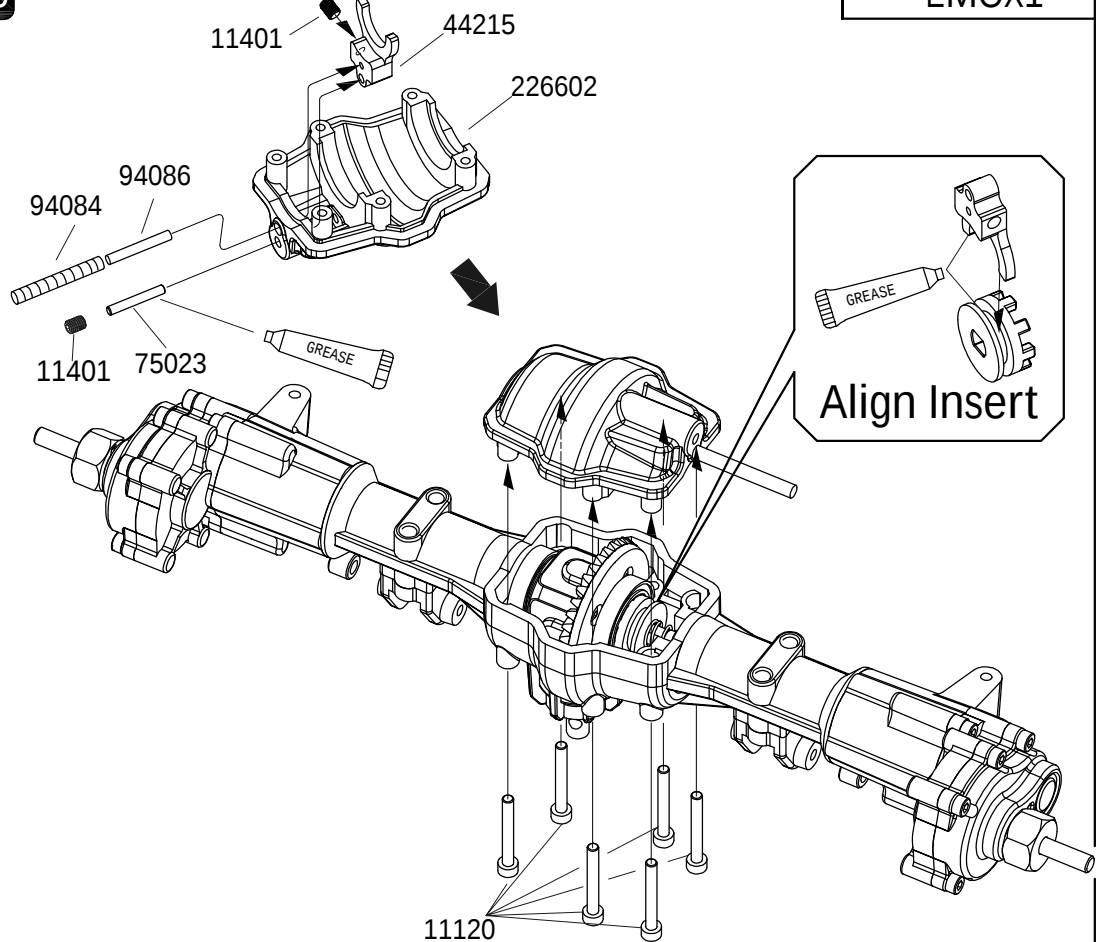
26

EMOX1

11401  M3x4 X2

75023  Ø2x14 X1

11120  M2.5x20 X6



27

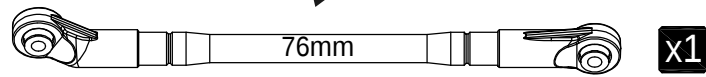
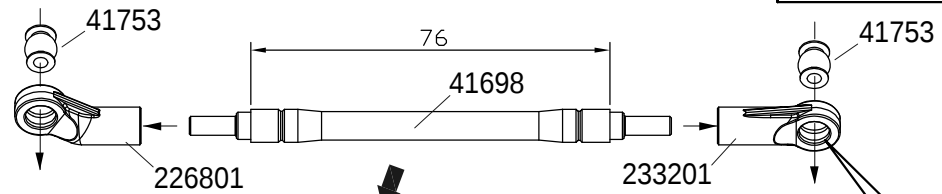
EMOX1

BAG(F)

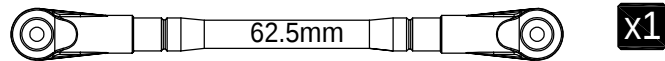
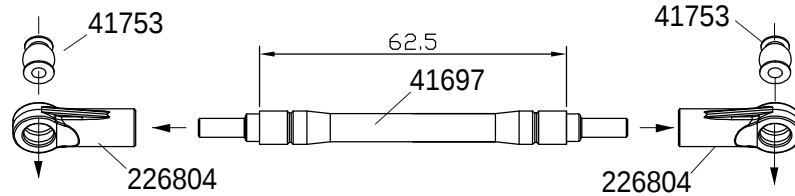
BAG(G)



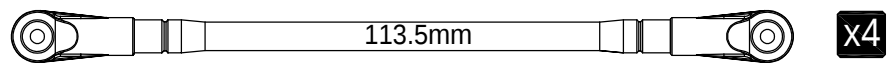
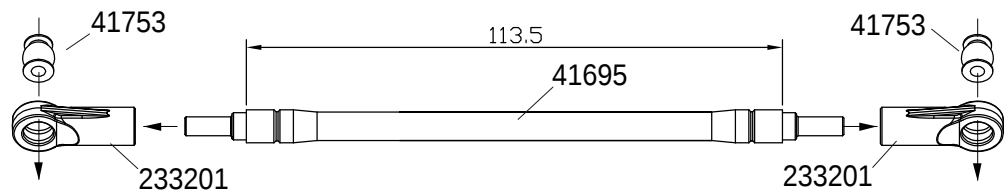
41753 X20



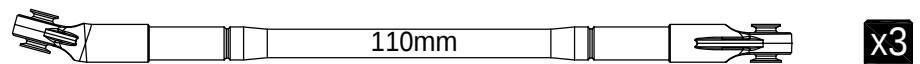
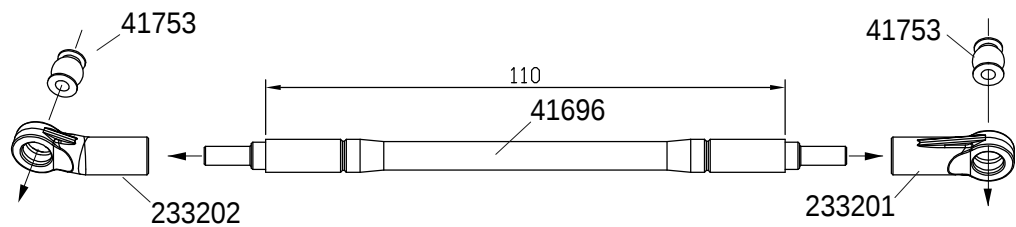
x1



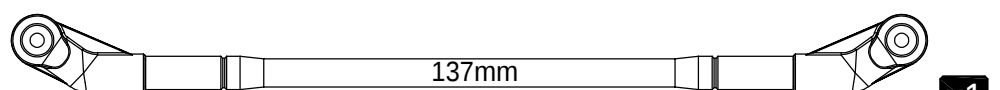
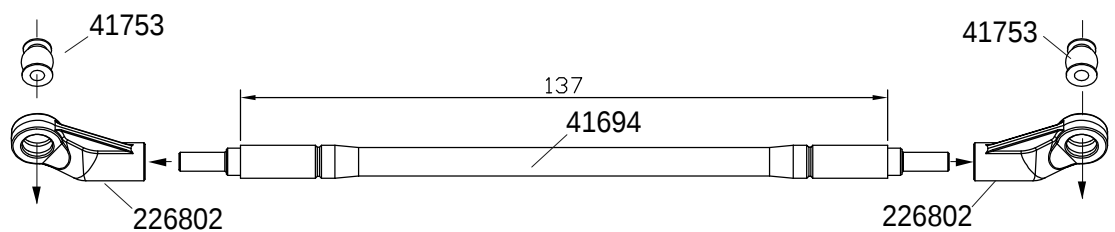
x1



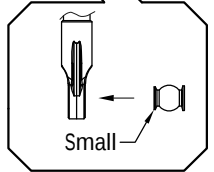
x4



x3



x1

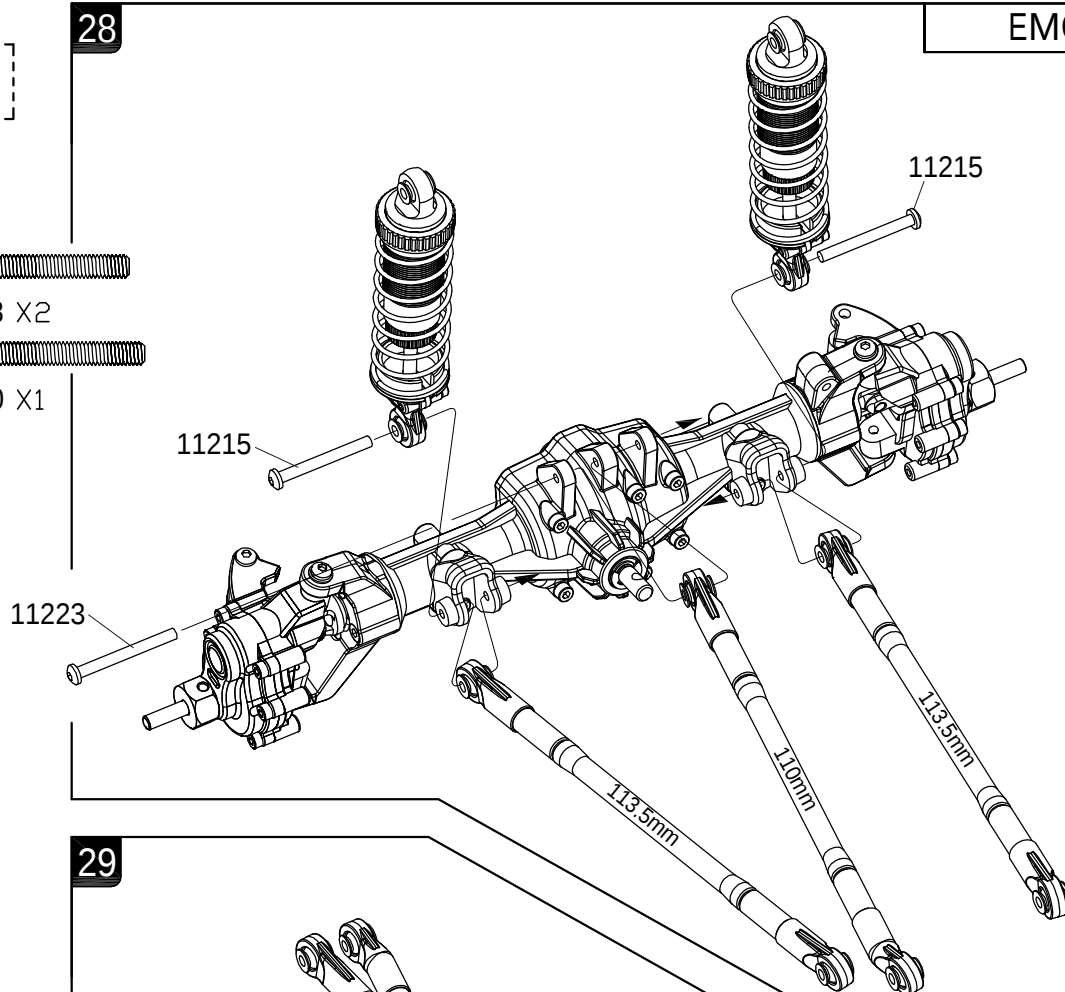


28

EMOX1

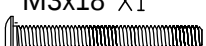
BAG(Y)

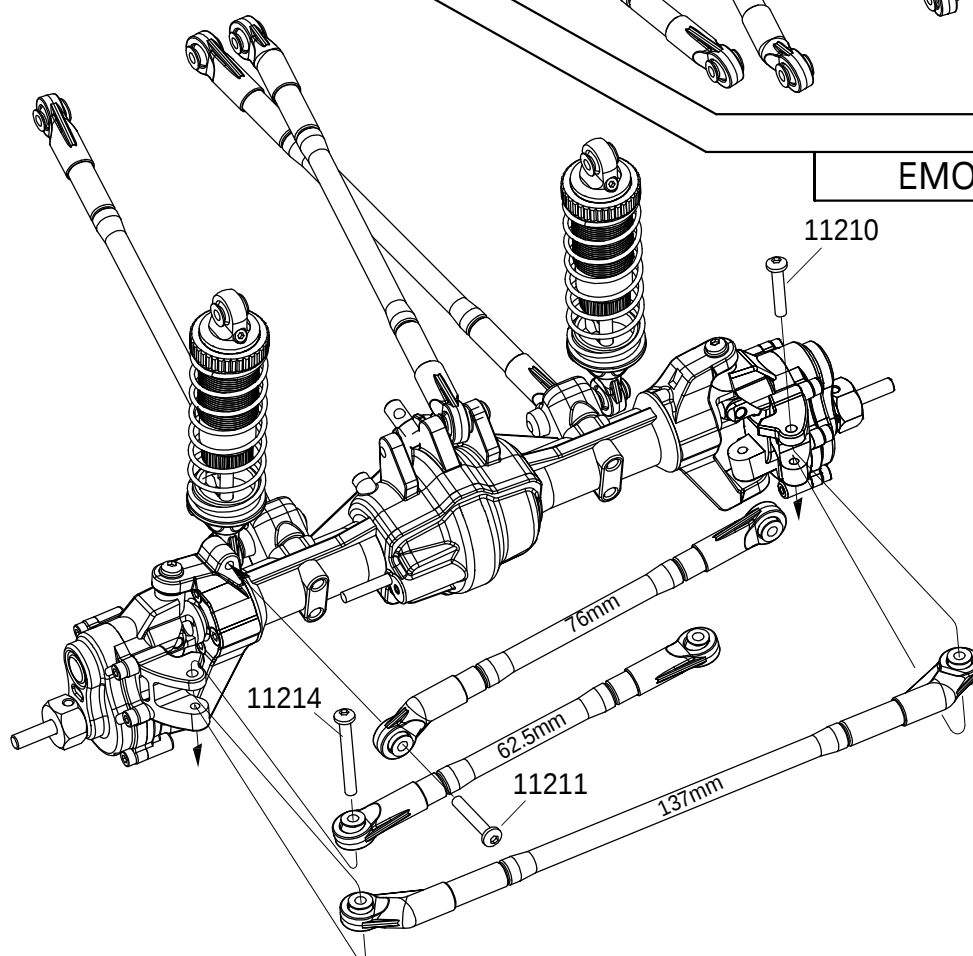
- 11215  M3x28 X2
- 11223  M3x30 X1



29

EMOX1

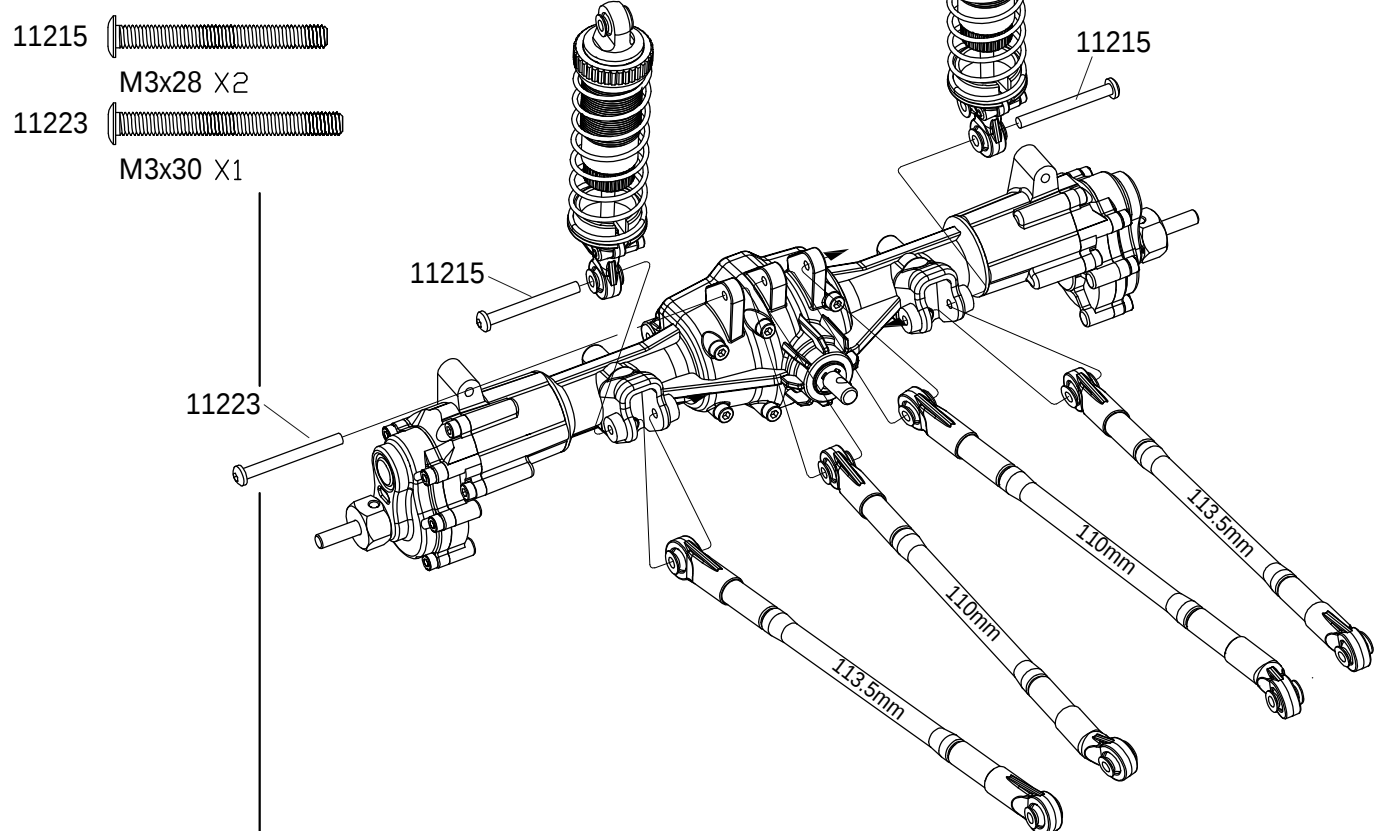
- 11210  M3x16 X1
- 11211  M3x18 X1
- 11214  M3x25 X1



BAG(Y)

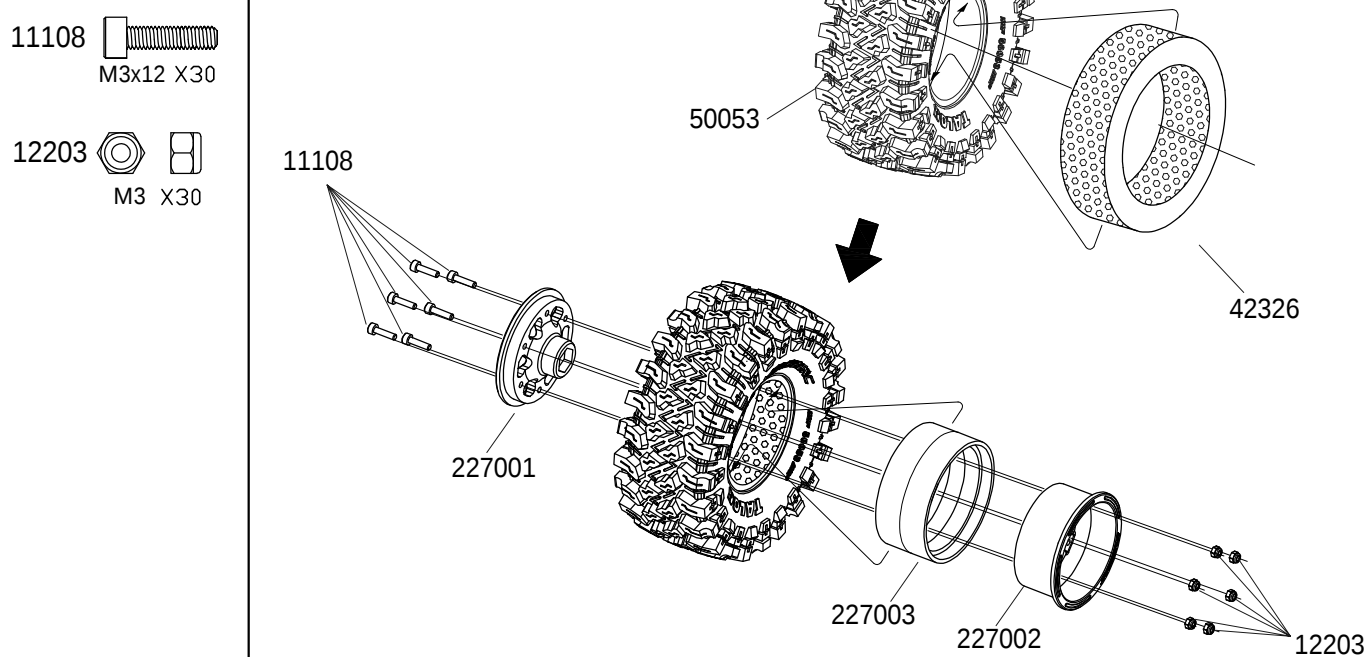
30

EMOX1



BAG(A)

31

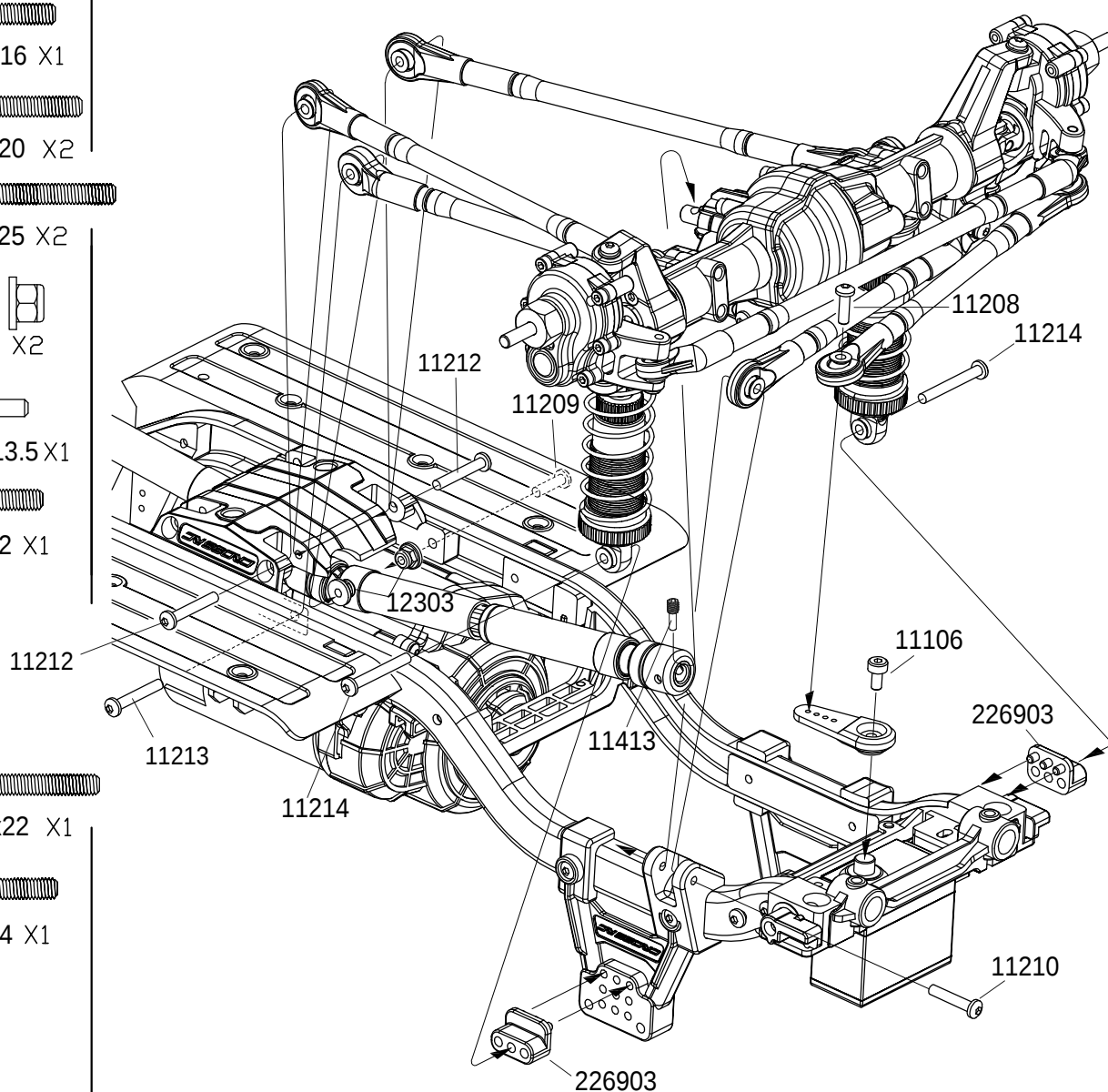
EMOX1

32

EMOX1

BAG(Y)

- 11106 
M3x8 X1
- 11210 
M3x16 X1
- 11212 
M3x20 X2
- 11214 
M3x25 X2
- 12307 
M3 X2
- 11413 
M4x13.5 X1
- 11208 
M3x12 X1
- 11213 
M3x22 X1
- 11209 
M3x14 X1



BAG(Y)

33

EMOX1

11212 

M3x20 X2

11213 

M3x22 X2

11214 

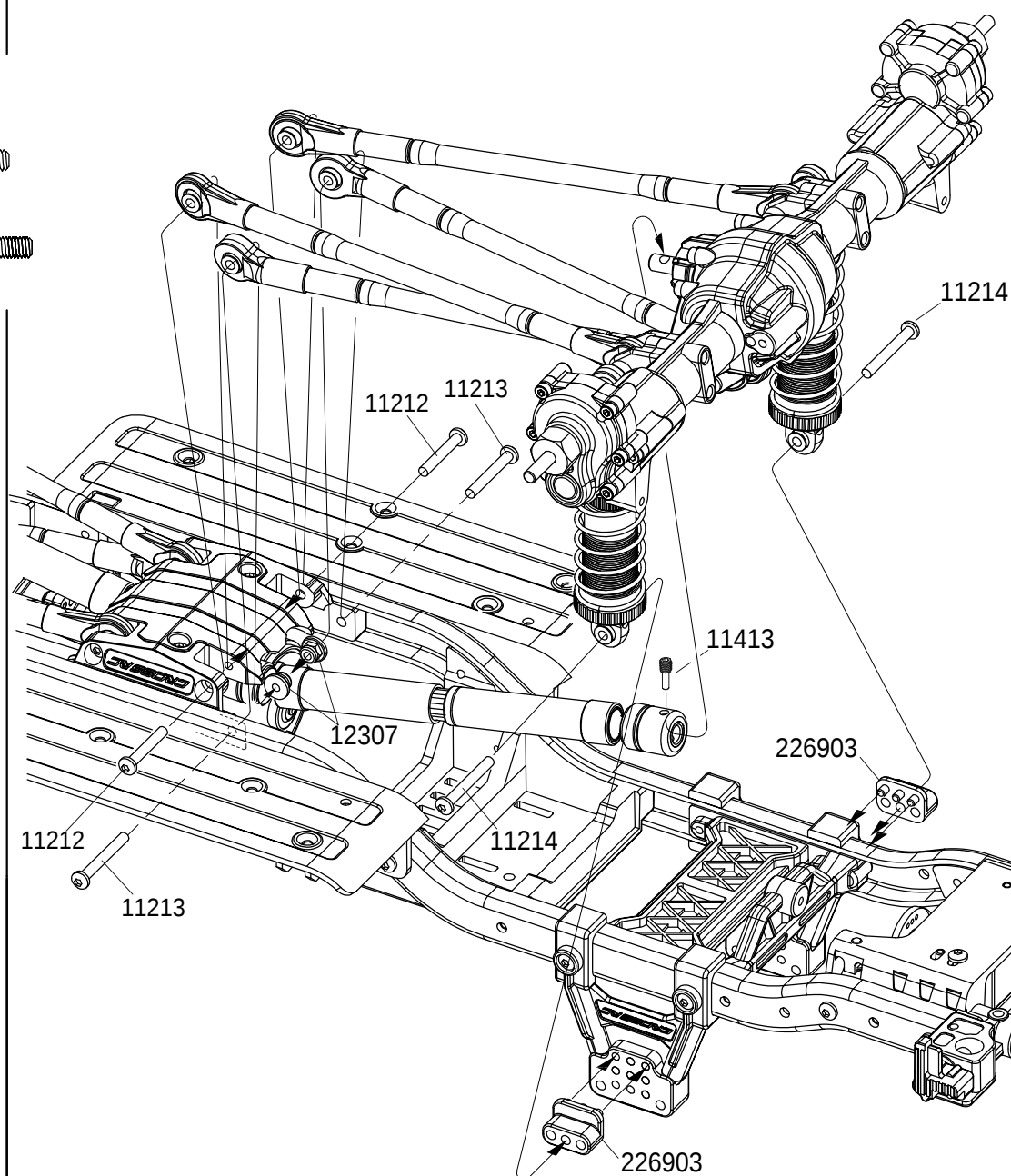
M3x25 X2

12307 

M3 X2

11413 

M4x13.5 X1



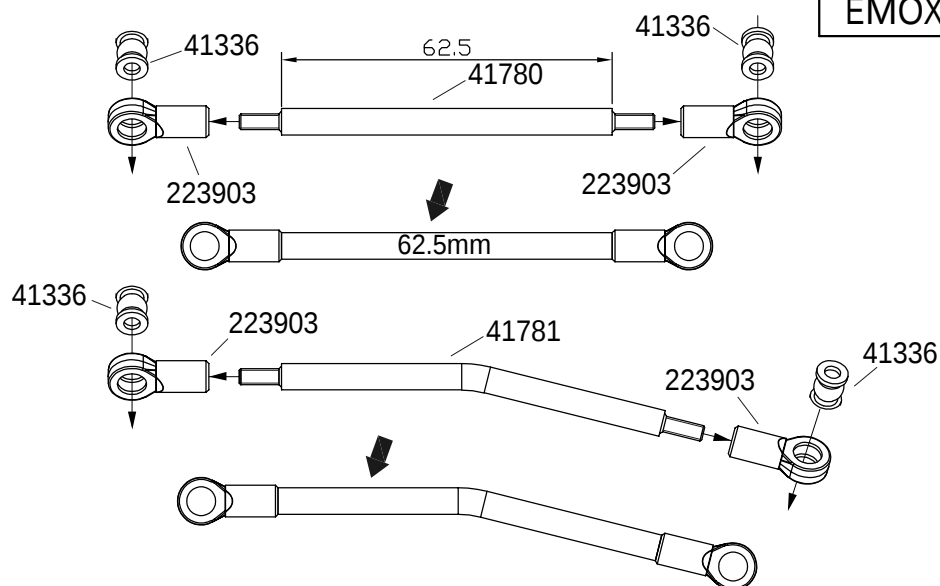
BAG(W)



41336 X 4

34

EMOX1



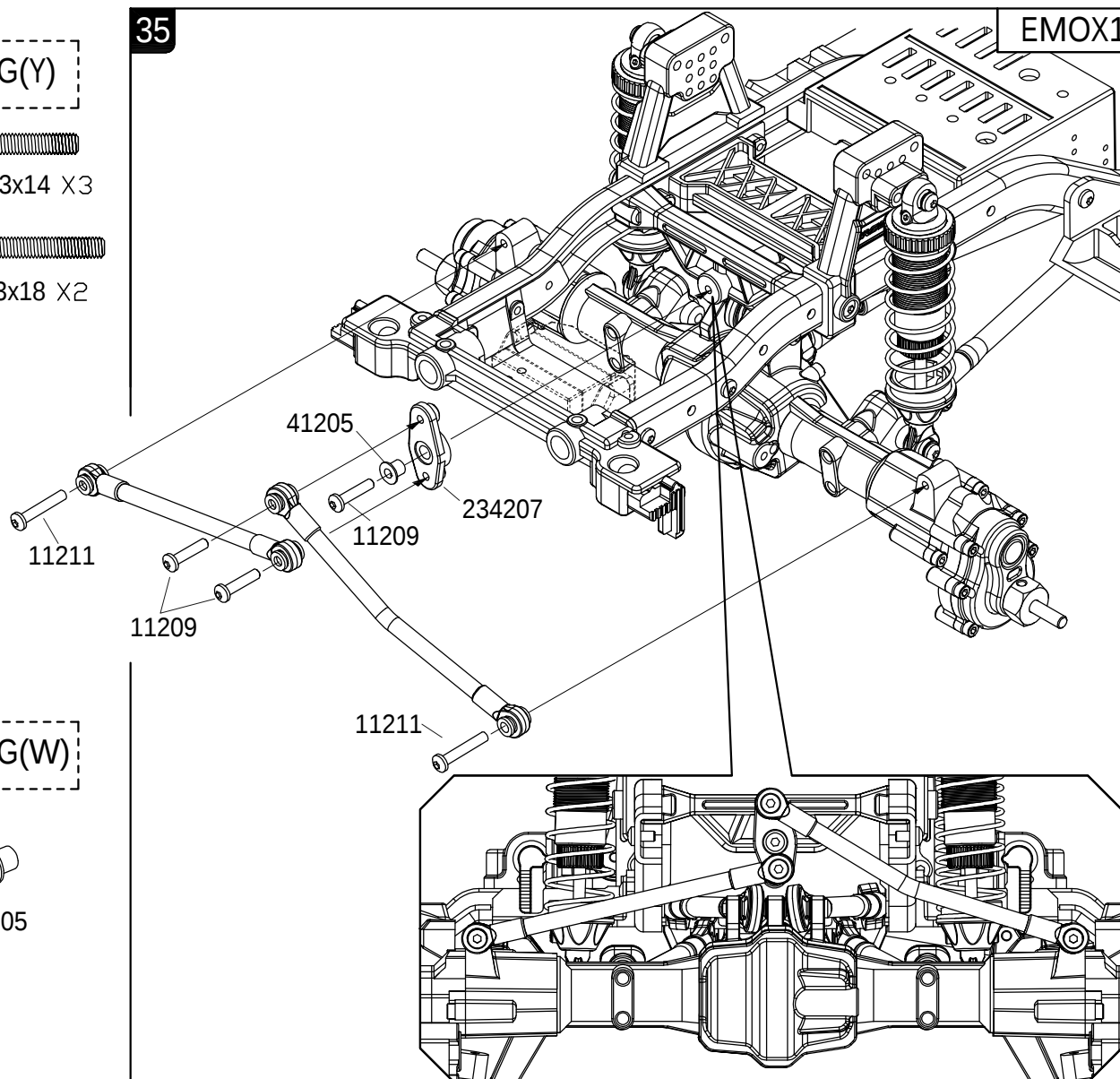
BAG(Y)

11209 M3x14 X3

11211 M3x18 X2

35

EMOX1



BAG(W)



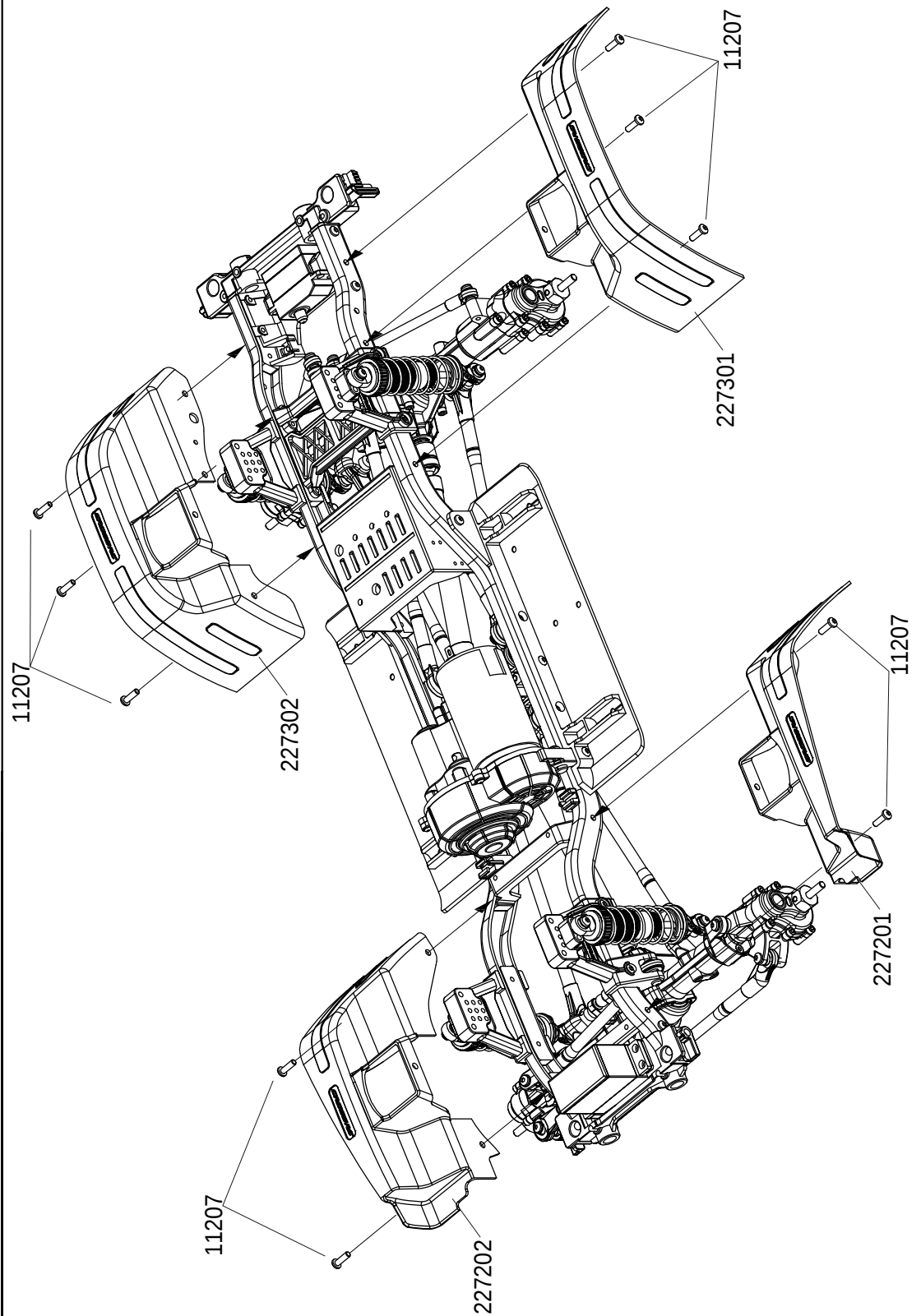
41205

36

EMOX1

BAG(Y)

11207 
M3x10 X10



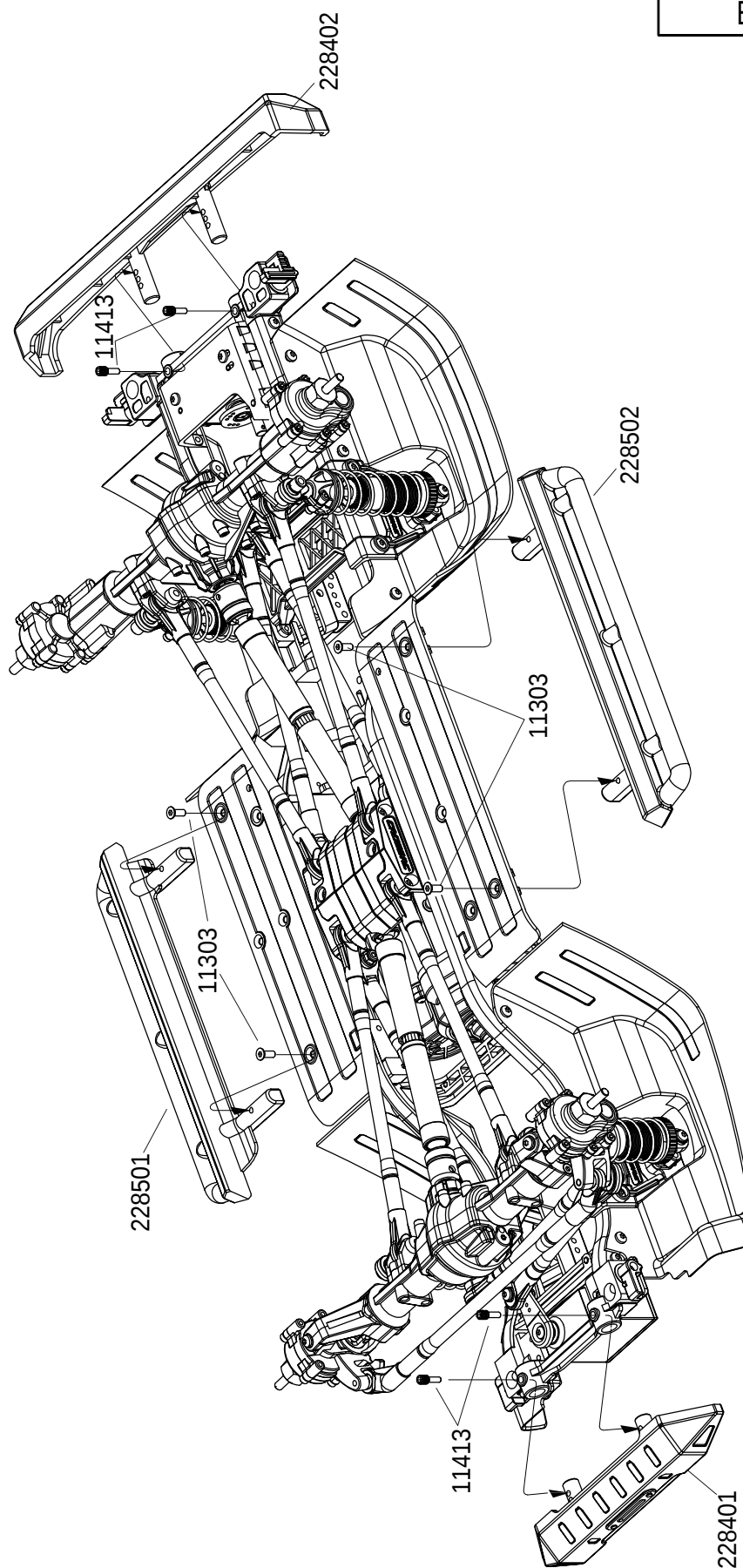
BAG(Y)

37

EMOX1

11303 
M3x8 X4

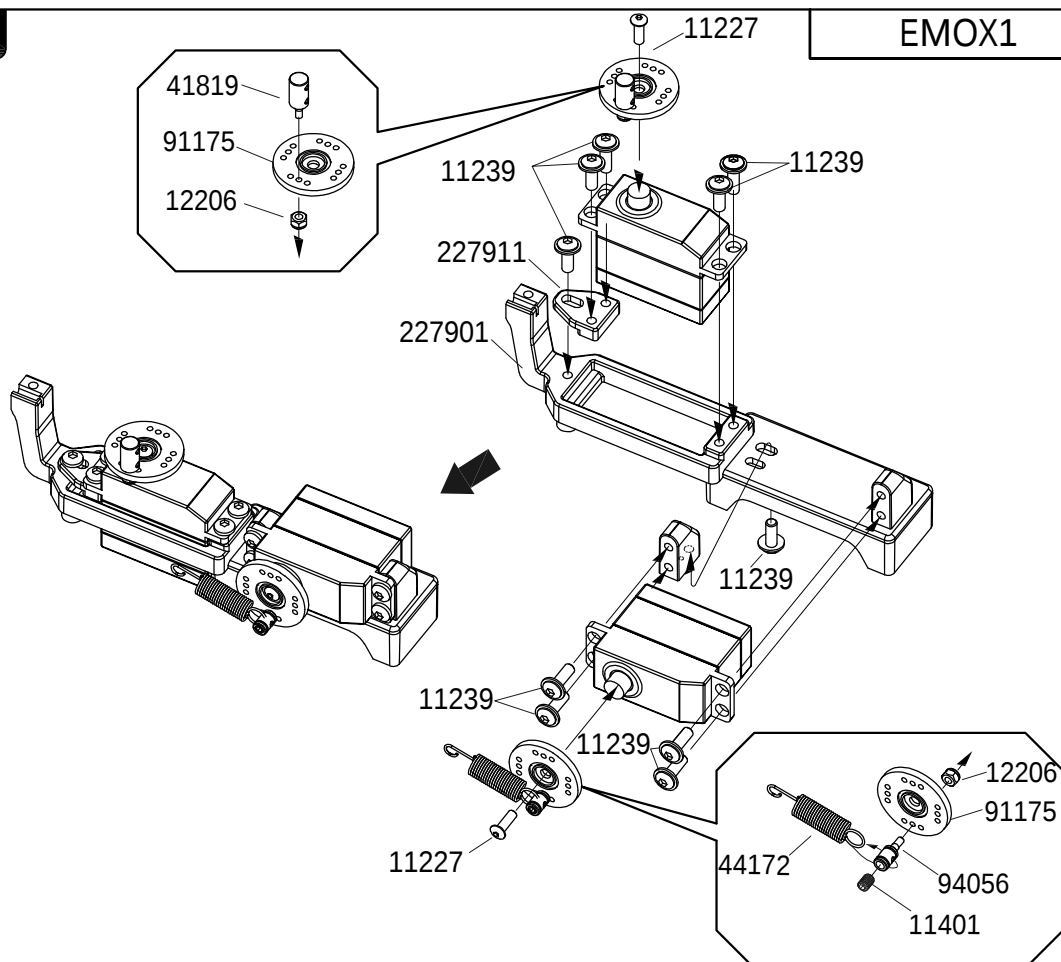
11413 
M4x13.5 X4



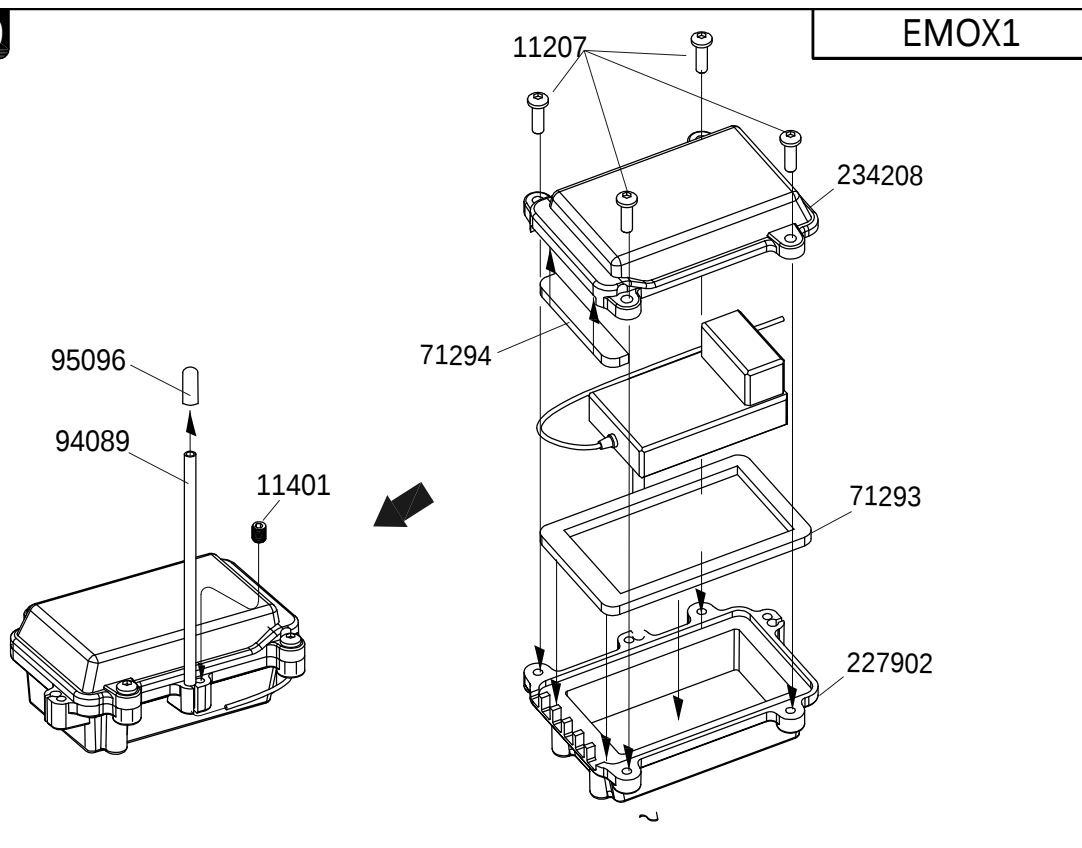
BAG(Y)

BAG(Z)

94056 X1



BAG(Y)

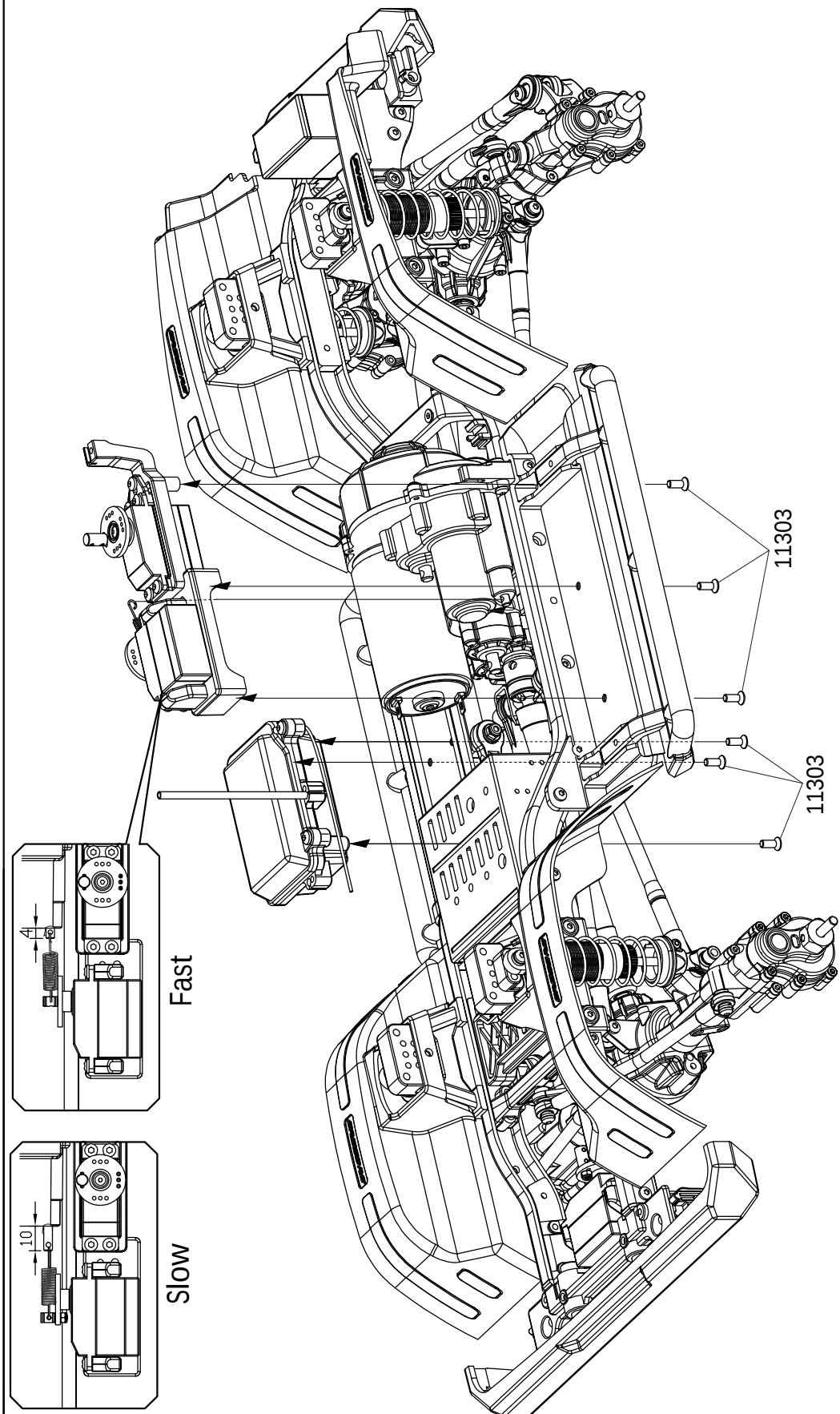


BAG(Y)

40

EMOX1

11303 
M3x8 X6



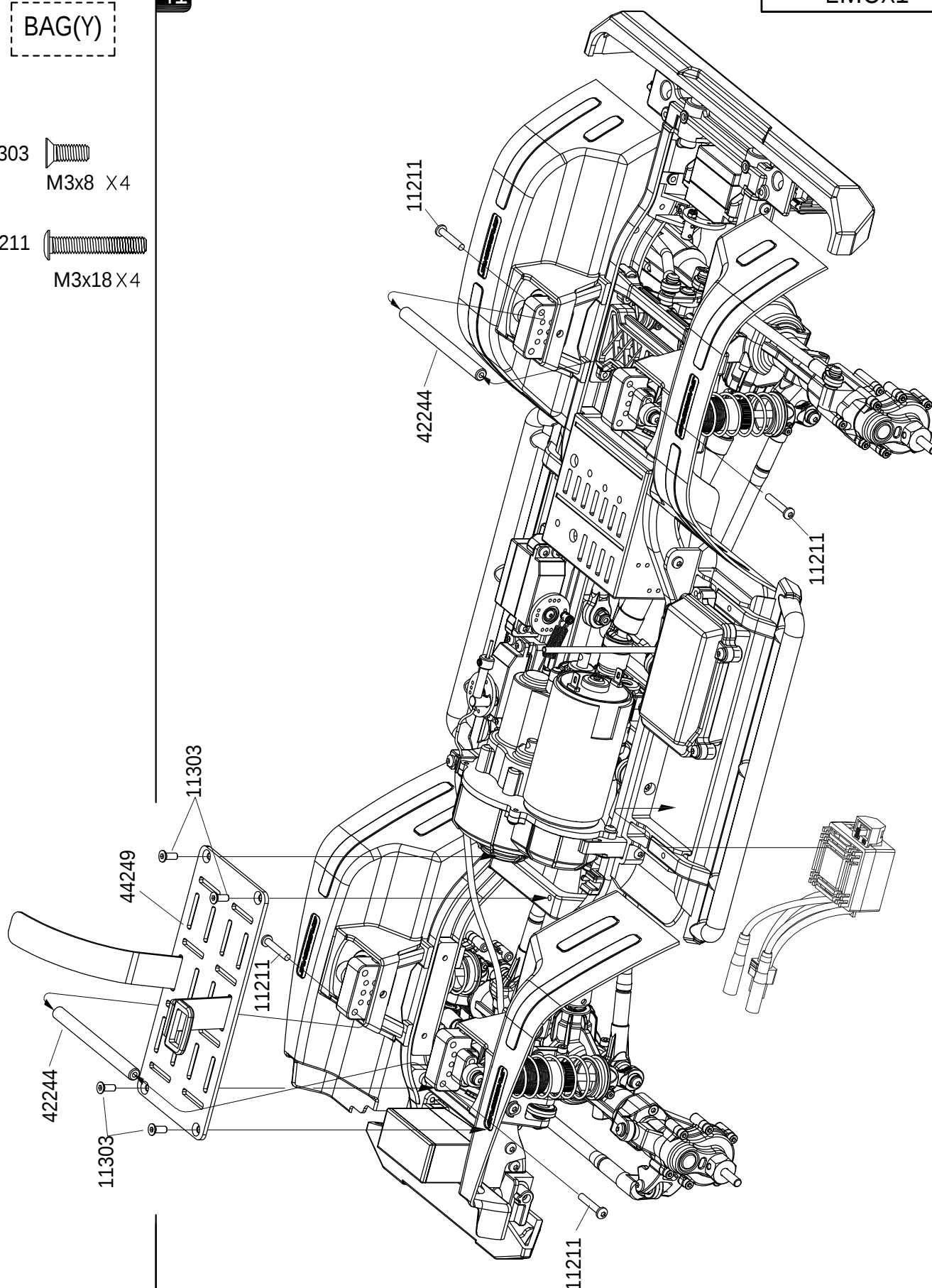
41

EMOX1

BAG(Y)

11303 
M3x8 X4

11211 
M3x18 X4



BAG(Y)

11239  M3x8 X1

BAG(Z)

11401
M3x4 X2


42231 X2

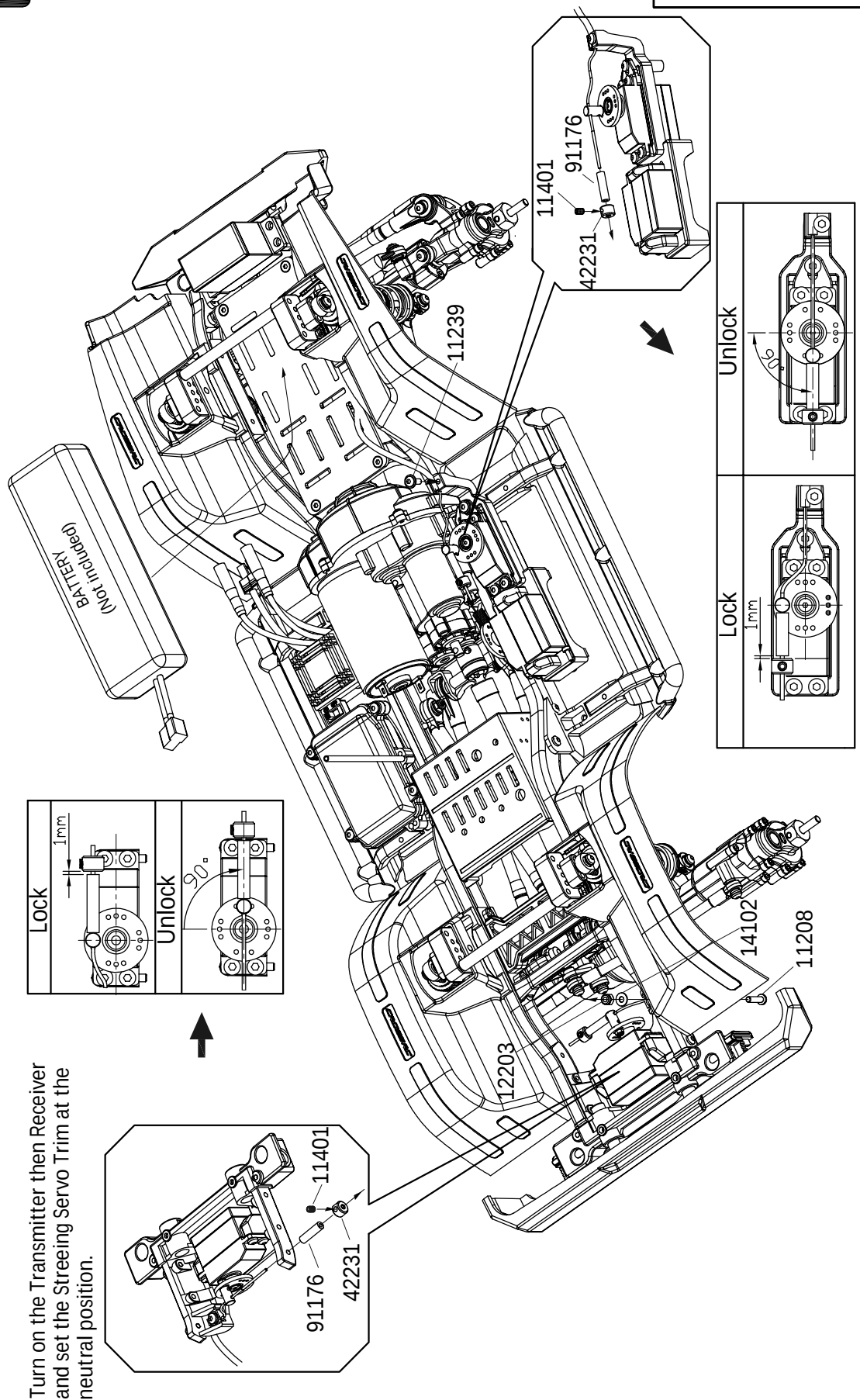
91176 X2

14102 
ø3xø7x0.5 X1

12203  
M3 X1

11208 
M3x12 X1

EMOX1

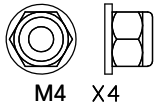


43

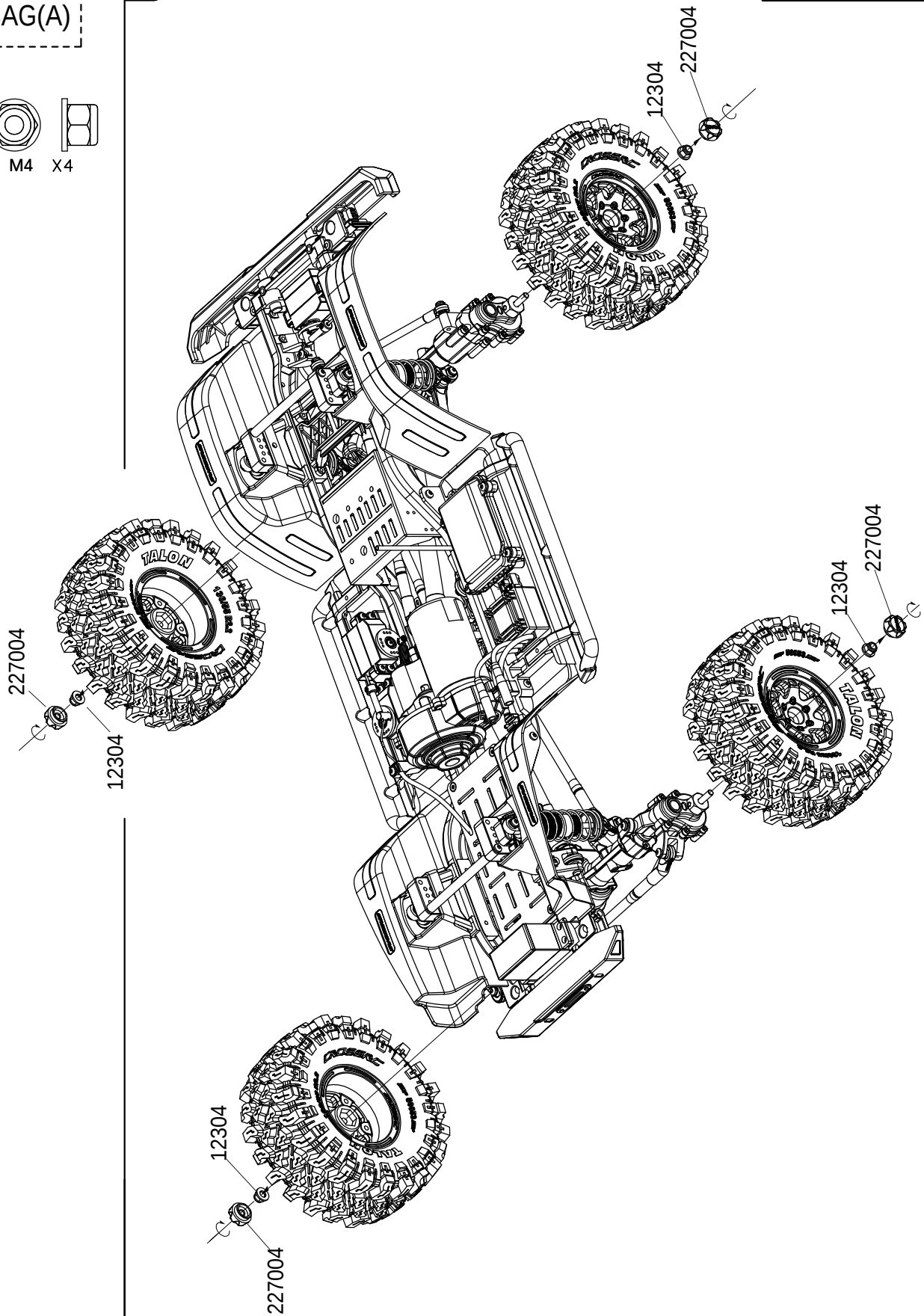
EMOX1

BAG(A)

12304



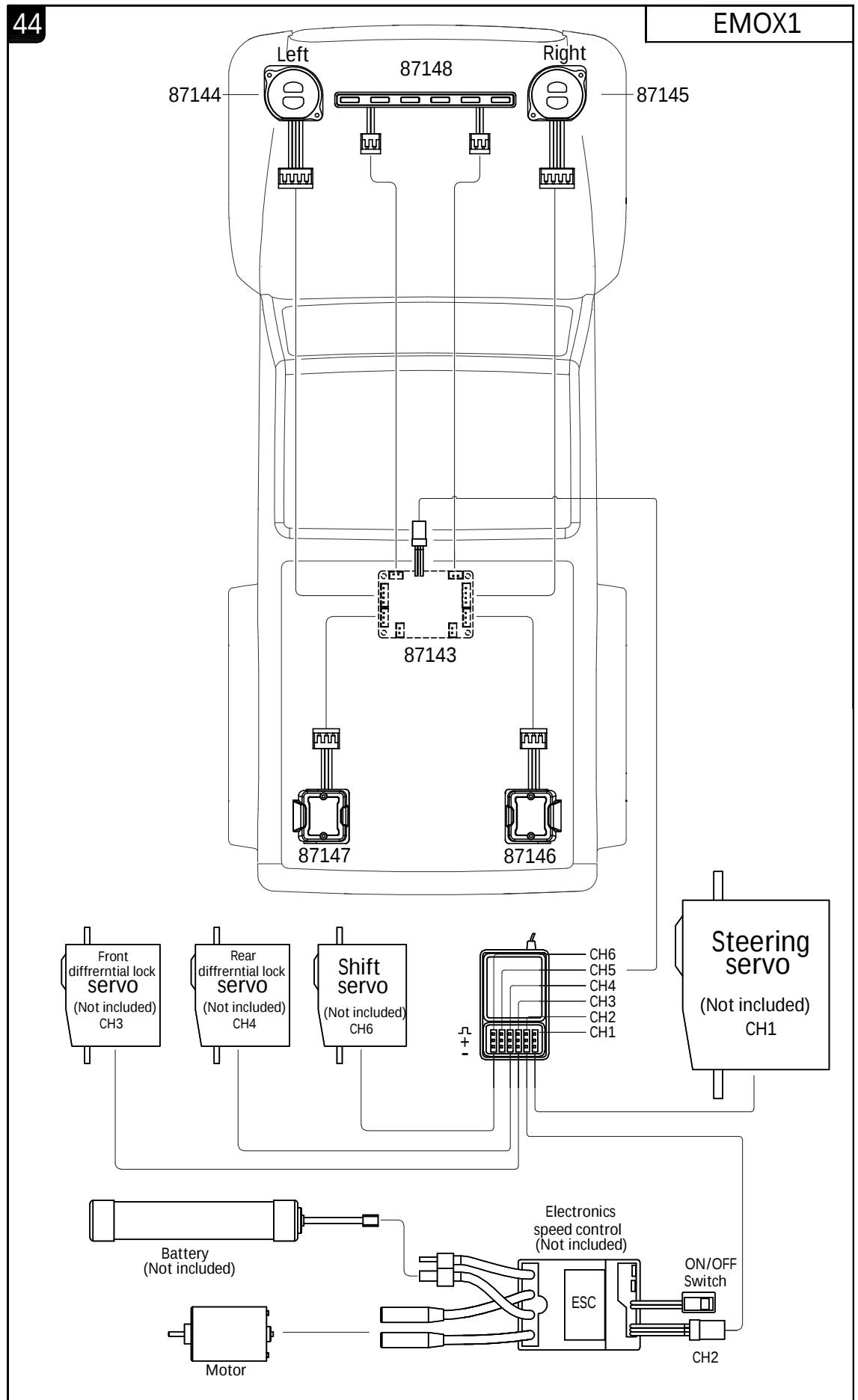
M4 X4



44

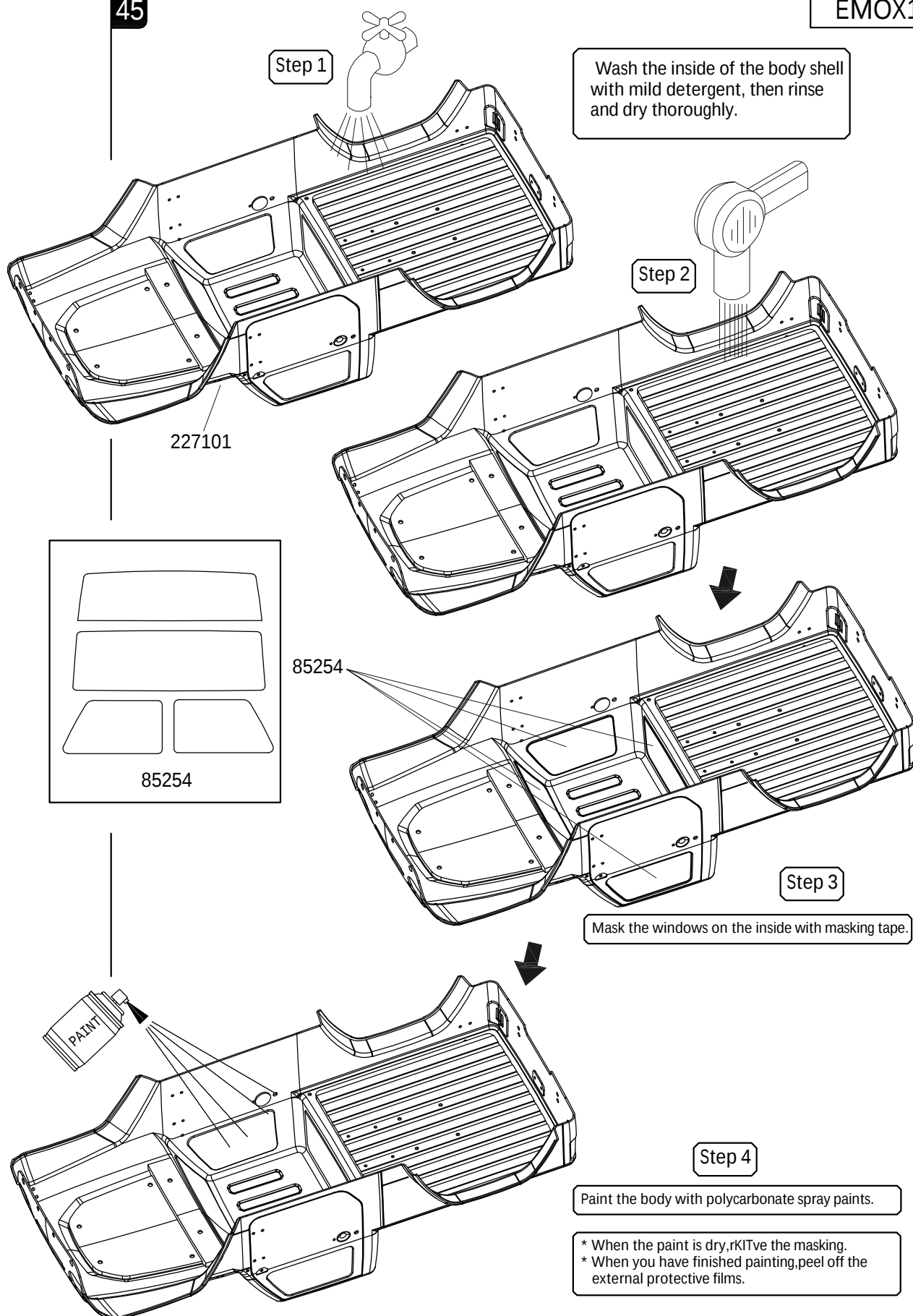
EMOX1

BAG(V)



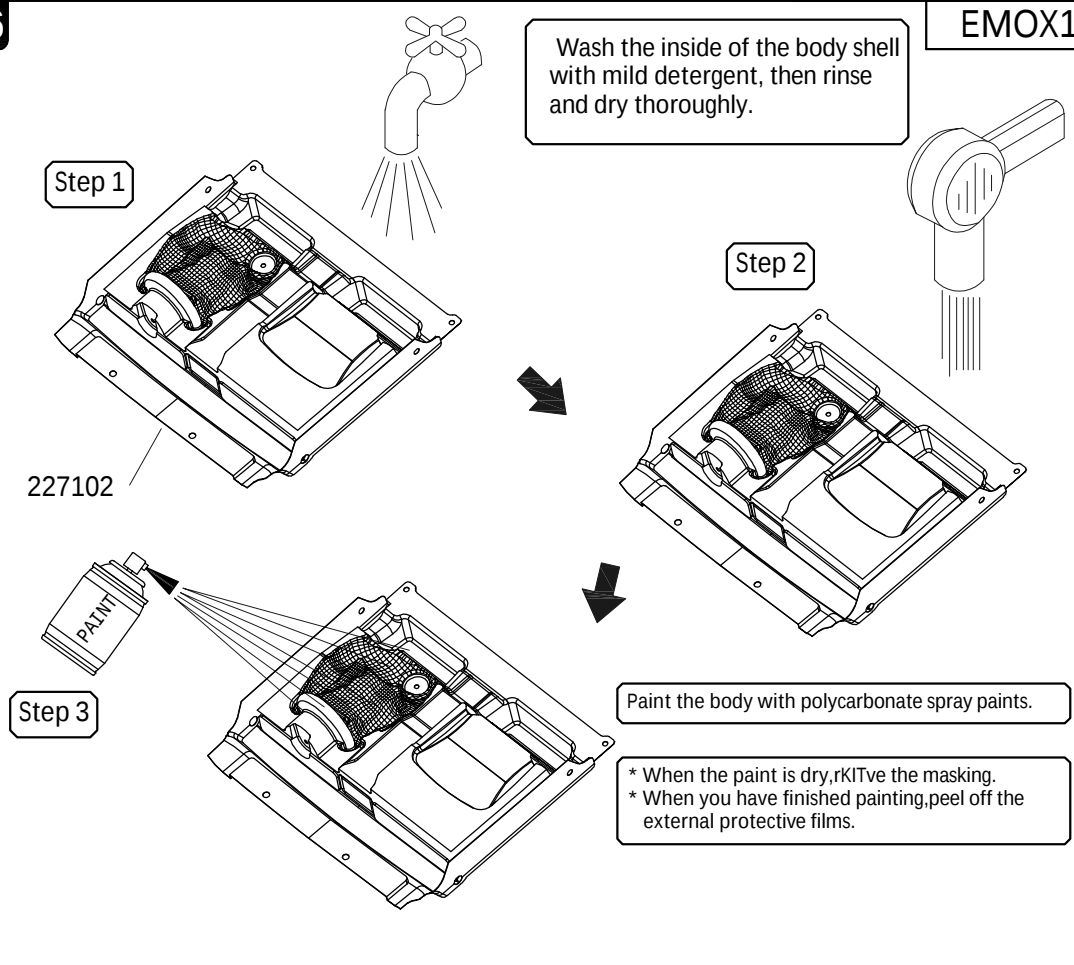
45

EMOX1



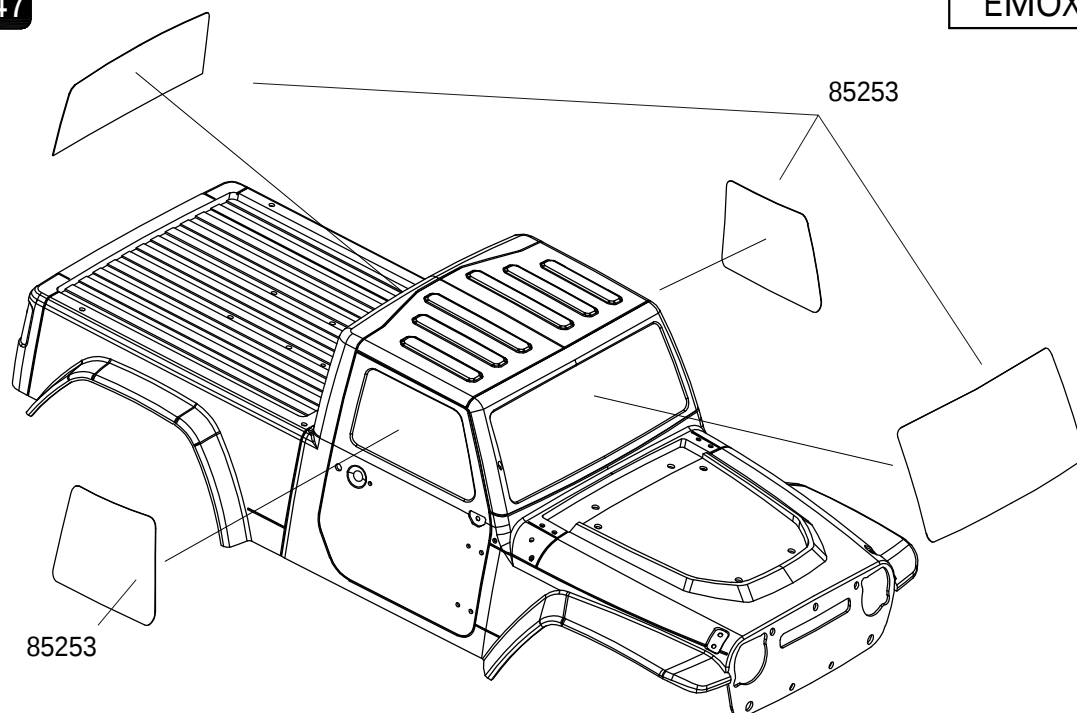
46

EMOX1



47

EMOX1

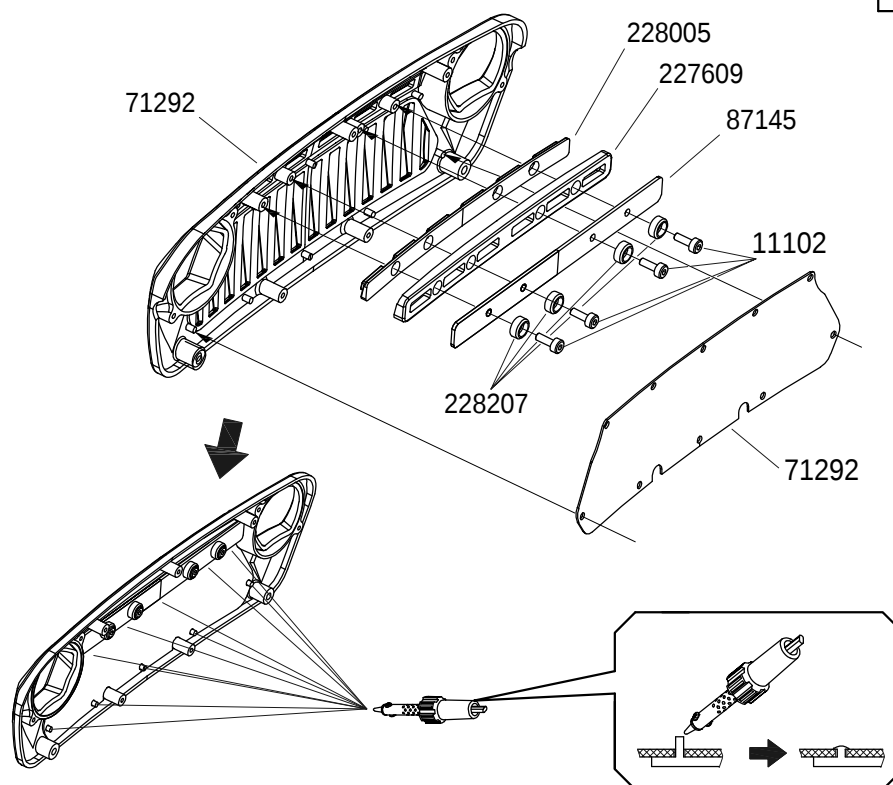


48

EMOX1

BAG(Y)

11102 
M2x6 X4



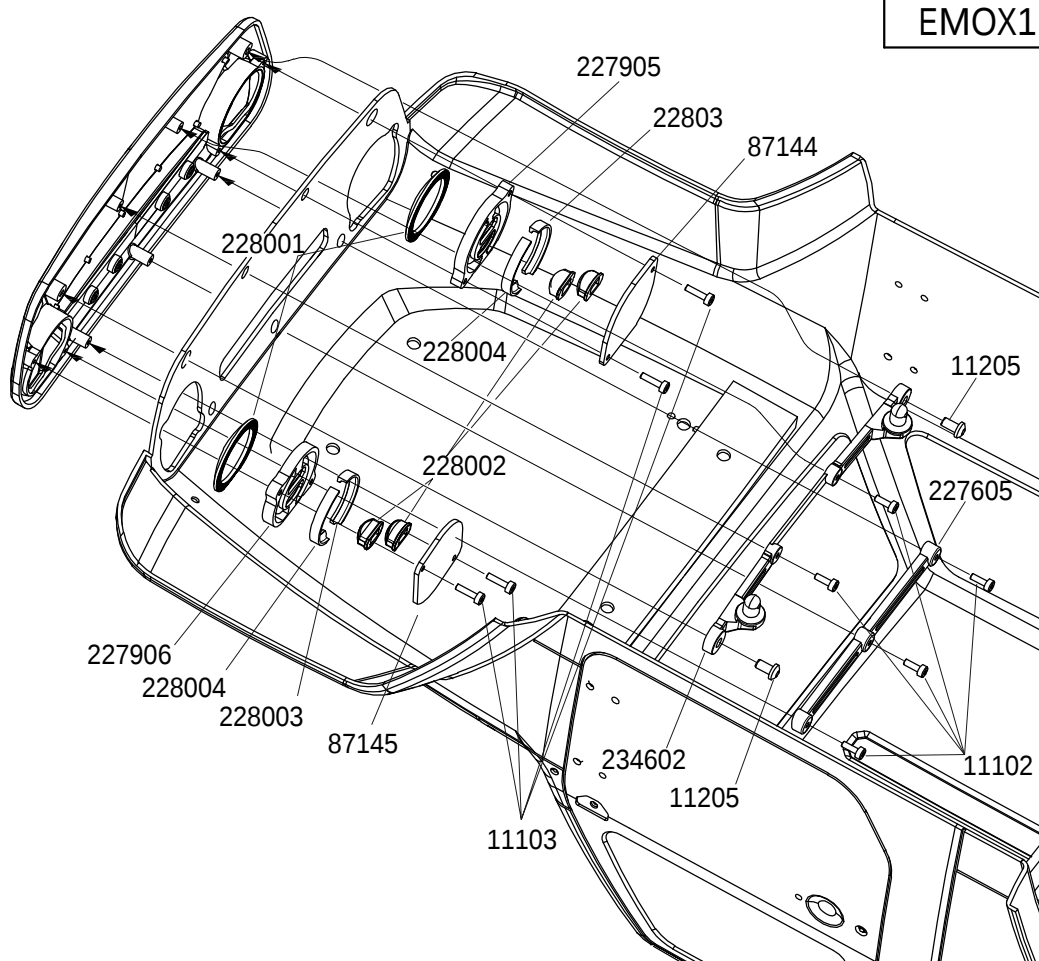
49

EMOX1

11103 
M2x8 X4

11102 
M2x6 X5

11205 
M3x6 X2



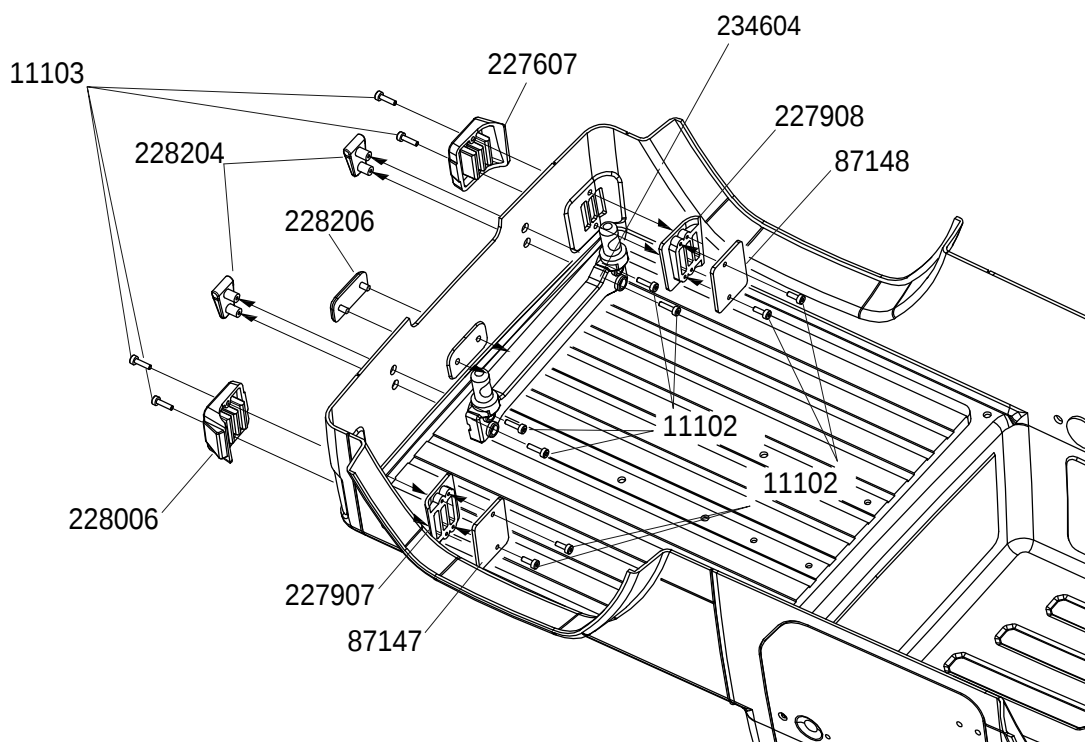
50

EMOX1

BAG(Y)

11102 
M2x6 X8

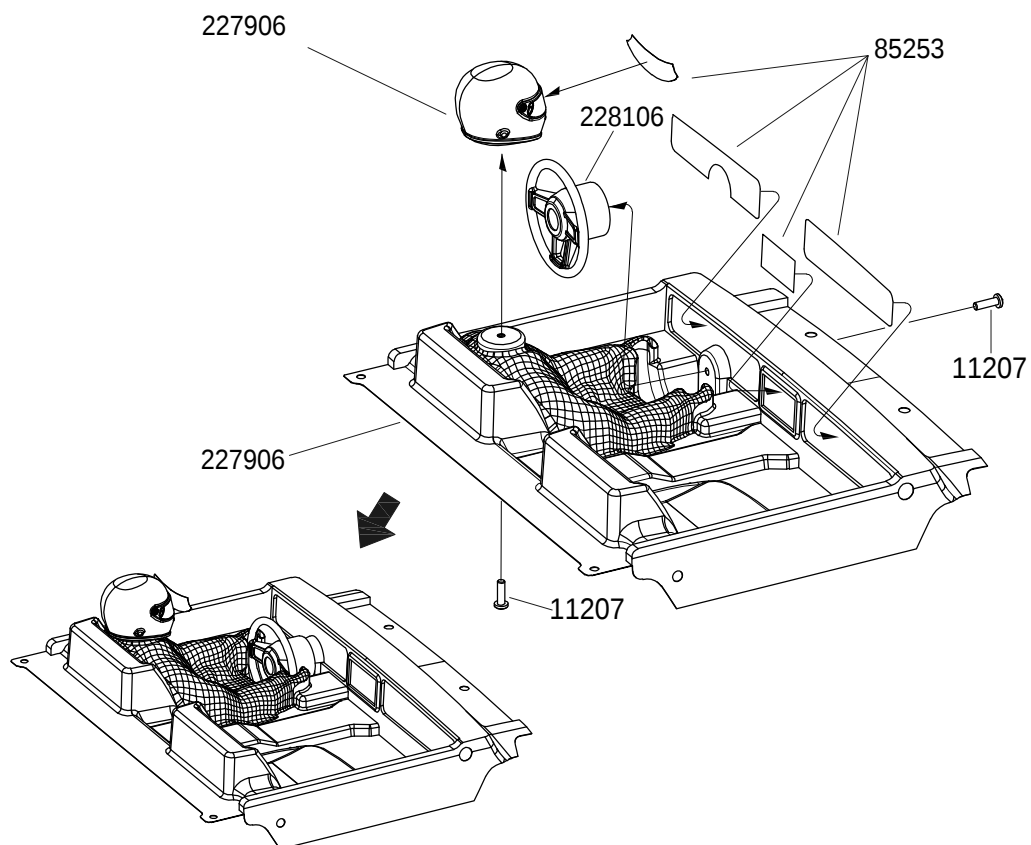
11103 
M2x8 X4



51

EMOX1

11207 
M3x10 X2

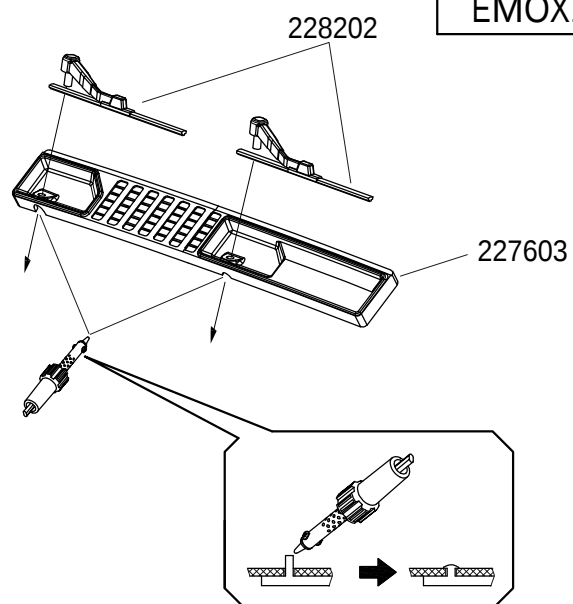
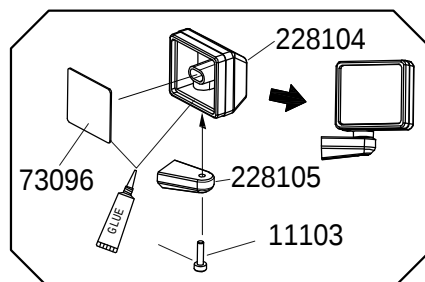
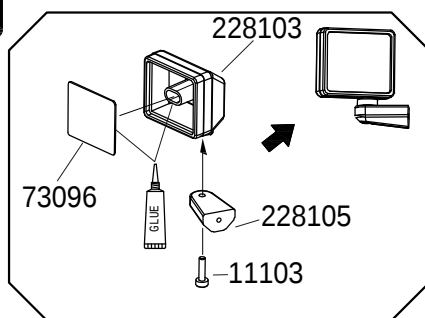


BAGY)

11103 
M2x8 X2

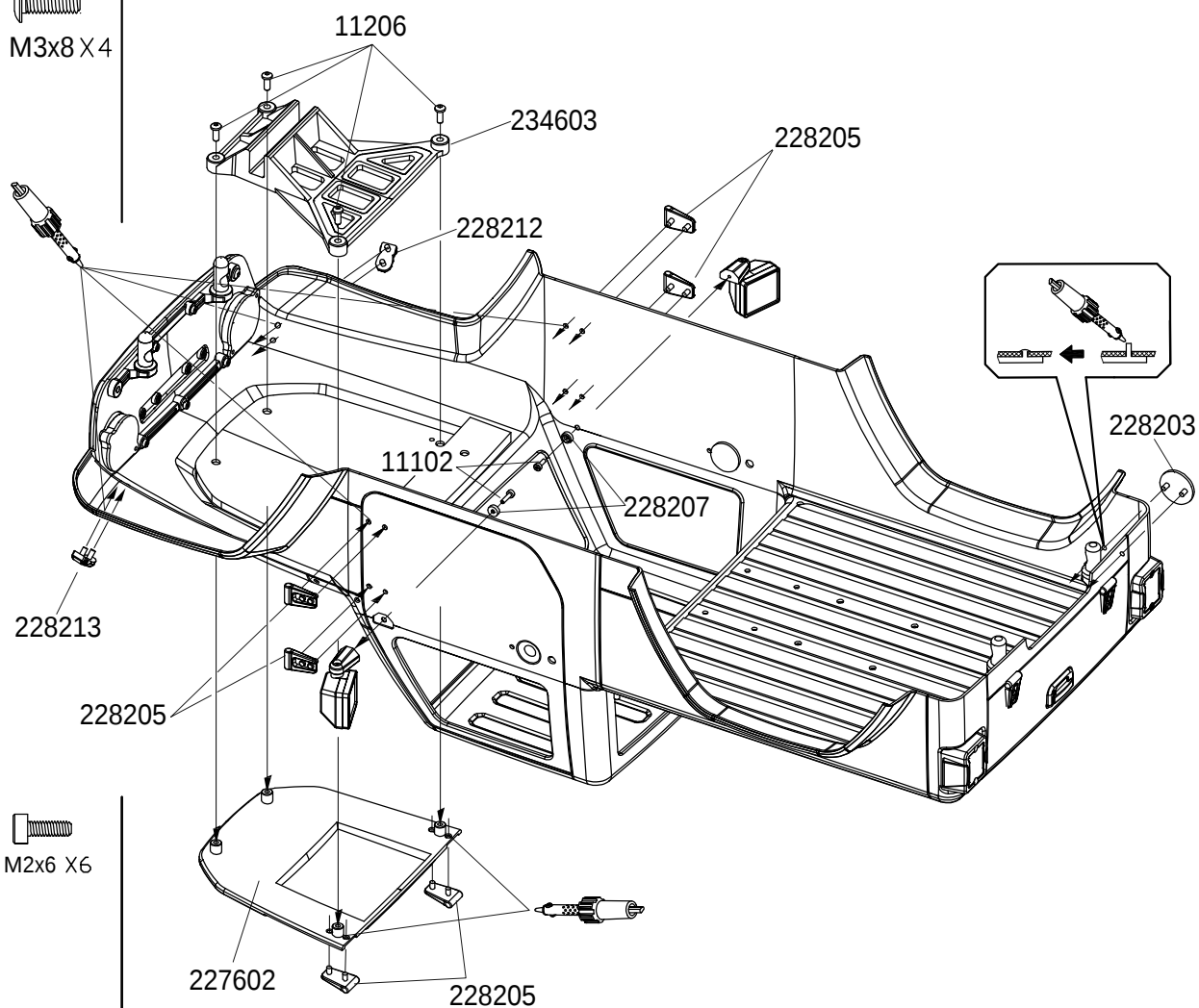
52

EMOX1



53

EMOX1

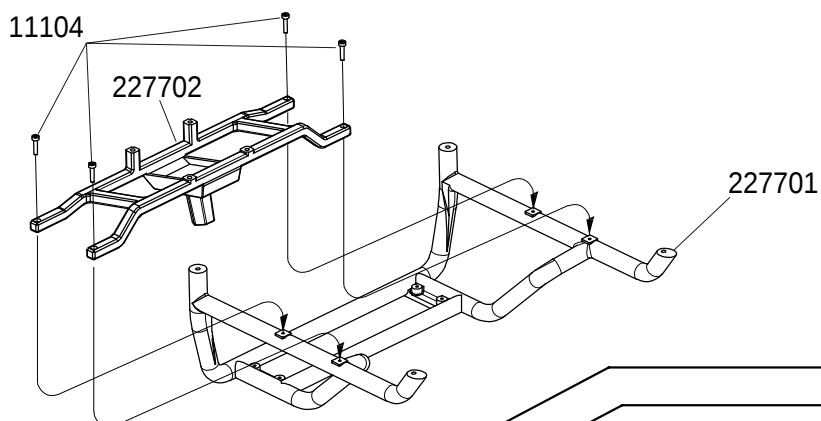
11206 
M3x8 X411102 
M2x6 X6

54

EMOX1

BAG(Y)

11104  M2x10 X4



55

EMOX1

11116  M2.5x12 X4

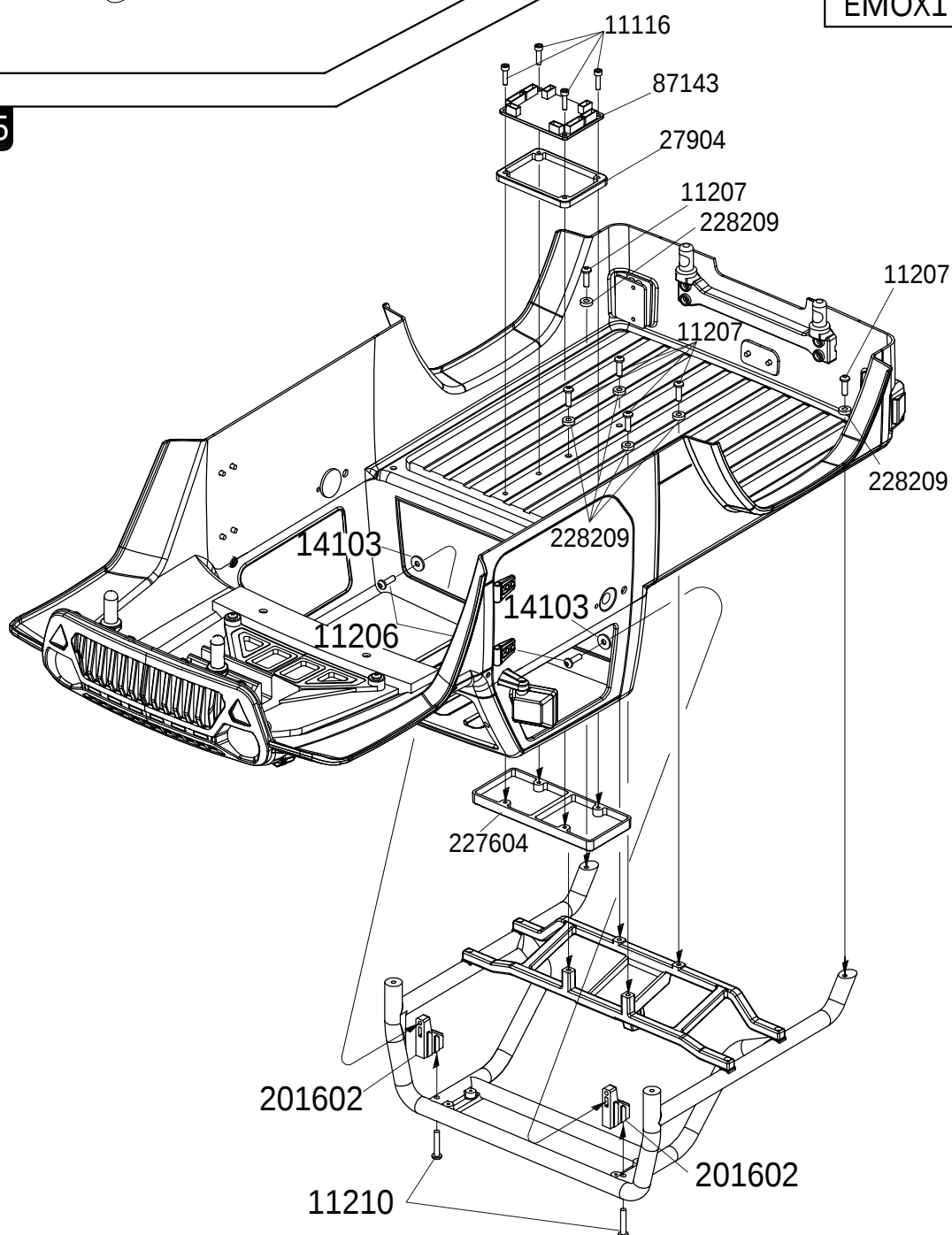
11207  M3x10 X6

BAG(AA)

11206  M3x8 X2

11210  M3x16 X2

14103  $\varnothing 3.2 \times \varnothing 9 \times 1$ X2

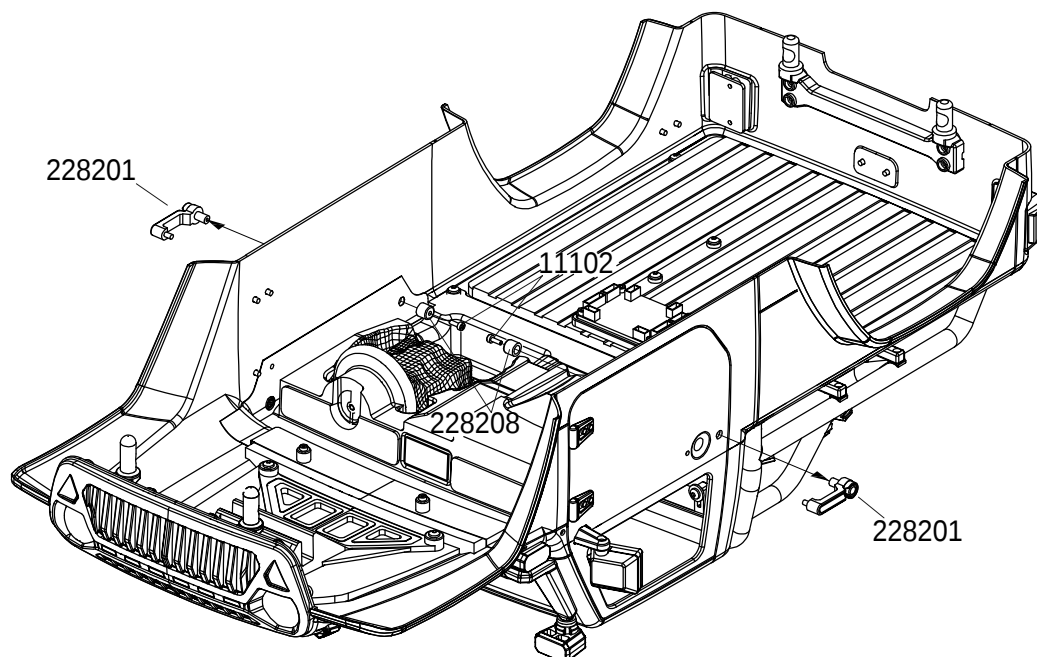


BAG(Y)

57

EMOX1

11102 
M2x6 X2



58

EMOX1

11207 
M3x10 X1

