

KIT VERSION

# WRAITH™

1/10th SCALE ELECTRIC 4WD ROCK RACER



OFF ROAD MOUNTAINOUS ROCKY DESERT



 AXiAL®  
[www.axialracing.com](http://www.axialracing.com)



## CAUTIONS



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

### CHOOSE THE RIGHT PLACE TO OPERATE YOUR R/C MODEL.

- Do not run on public streets or highways. This could cause serious accidents, personal injuries, and/or property damage.
- Never run R/C models near people or animals.
- To avoid injury, do not run in confined spaces.
- Do not run where loud noises can disturb others, such as hospitals and residential areas.
- Never run indoors. There is a high risk of fire and/or damage.

### AFTER OPERATION OF YOUR R/C MODEL

- Turn off receiver first, then turn off transmitter, this will prevent runaways.
- Be careful when handling batteries, they will be hot after running.
- Replace any batteries that have been dented or have frayed wires, short circuits can cause fire.
- Be sure to keep your R/C model clean and free of excess dirt and grease, this will increase the life.

### INSPECT YOUR MODEL BEFORE OPERATION.

- Make sure that all screws and nuts are properly tightened. It is also a good idea to use removable thread lock wherever metal screws go into metal, especially for engine mounts and the engine pilot shaft.
- Always use fresh batteries for your transmitter and for your receiver to avoid losing control of the model.
- Always test the brakes and throttle before starting your engine to avoid losing control of the model.
- Make sure no one else is using the same radio frequency as you are using.

## VORSICHT!

⚠ Um Verletzungen an Personen und/oder Sachschäden zu vermeiden, sollten alle ferngesteuerten Modelle sorgfältig und verantwortungsbewusst bedient werden, wie nachfolgend beschrieben.

### Wählen Sie den richtigen Platz zum Fahren

- Fahren Sie niemals auf öffentlichen Straßen. Dies könnte Verkehrsunfälle, Personenschäden oder Sachschäden verursachen.
- Fahren Sie niemals in der Nähe von anderen Personen oder Tieren.
- Fahren Sie niemals auf belebten Straßen.
- Fahren Sie nie in der Nähe von Wohnhäusern oder Krankenhäusern. Der Lärm könnte andere Personen stören.
- Fahren Sie niemals in Innenräumen. Dort könnte etwas beschädigt werden.

### Nach Betrieb des RC Modells:

- Zuerst den Empfänger abdrehen, dann den Sender abdrehen um unkontrolliertes Durchgehen zu vermeiden.
- Seien Sie vorsichtig mit gebrauchten Akkus, sie können nach dem Gebrauch heiß sein.
- Ersetzen Sie Akkus/Batterien die beschädigt sind oder schadhafte Kabel aufweisen, sie können Kurzschlüsse oder Feuer verursachen.
- Halten Sie Ihr Fahrzeug sauber und entfernen Sie Schmutz und Schmierfett, damit erhöhen Sie die Lebensdauer Ihres Modells.

### Überprüfen Sie Ihr Modell, bevor Sie es in Betrieb nehmen.

- Gehen Sie sicher, dass alle Schrauben und Muttern festgezogen sind. Verwenden Sie überall dort Schrauben-Sicherungslack, wo Metallschrauben in ein Metallgewinde greifen, besonders bei den Motorhaltern.
- Um Störungen zu vermeiden, benutzen Sie immer voll geladene Akkus in Ihrem Sender und Empfänger.
- Bevor Sie den Motor starten, sollten Sie immer die Funktion der Bremse und des Gashebels testen.
- Gehen Sie sicher, dass niemand mit der gleichen Frequenz fährt wie Sie.

## PRECAUTIONS



Afin d'éviter toutes blessures corporelles et/ou dommages environnants, veuillez procéder en toute responsabilité comme indiqué ci-dessous

### Choisir le lieu adéquat pour faire rouler votre modèle.

- Ne jamais rouler dans les rues ou sur les routes ouvertes au public. Ceci peut provoquer de graves accidents.
- Ne jamais rouler près de personnes ou d'animaux.
- Pour éviter les blessures, ne pas rouler dans des espaces confinés.
- Ne jamais rouler où le bruit peut déranger, comme aux abords des hôpitaux ou des quartiers résidentiels.
- Ne jamais rouler à l'intérieur: les gaz d'échappement sont nocifs.

### Après l'Opération De Votre Modèle de R/C

- Le virage du récepteur premier, alors virage de l'émetteur, ceci empêchera des fugitifs.
- Faire attention en contrôlant des piles, ils auront chaud après avoir couru.
- Remplacer n'importe quelles piles qui ont été cabossées ou a éraillé des fils, les court-circuits peuvent causer le feu.
- Etre sûr de garder votre modèle de R/C nettoie et libère de terre et la graisse supplémentaires, ceci augmentera la vie.

### Contrôler votre modèle avant chaque utilisation.

- Vérifier que les vis et les écrous sont bien serrés. Il est très fortement conseillé d'utiliser du frein filet pour bloquer les vis qui sont en contact avec du métal et tout particulier ment les vis du moteur.
- Toujours utiliser des batteries bien chargées pour l'émission et la réception.
- Toujours vérifier les freins et la commande des gaz avant de démarrer.
- Vérifier qu'aucune autre personne n'utilise votre fréquence radio.

## Equipment needed / Benötigtes Zubehör / Equipement nécessaire

### Radio Gear / Fernsteueranlage / Equipement Radio

#### Radio control system

- You will need a 2-Channel radio system with one servo, receiver, an electronic speed control with an ON/OFF switch.

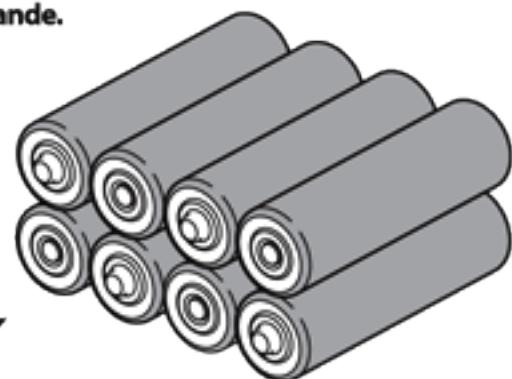
#### Fernsteueranlage

- Sie werden ein 2-kanal Radio System mit einem Servo, Empfänger, eine elektronische Geschwindigkeitssteuerung mit einem Netzschalter brauchen.

#### Ensemble radiocommande

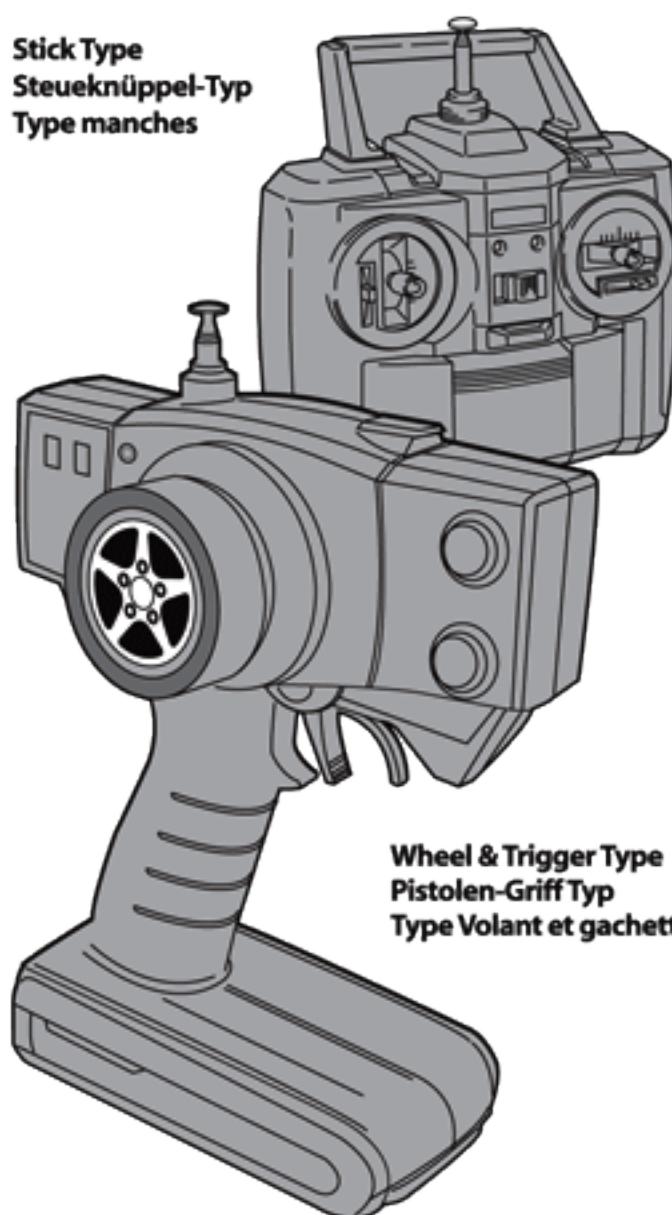
- Vous aurez besoin d'un système de radio de 2 Chaînes avec un servo, le récepteur, un contrôle de vitesse électronique avec un interrupteur(on-off).

- 8AA Alkaline Dry Batteries.  
• 8 St. AA Trockenbatterien.  
• 8 piles type R6 pour votre radio commande.



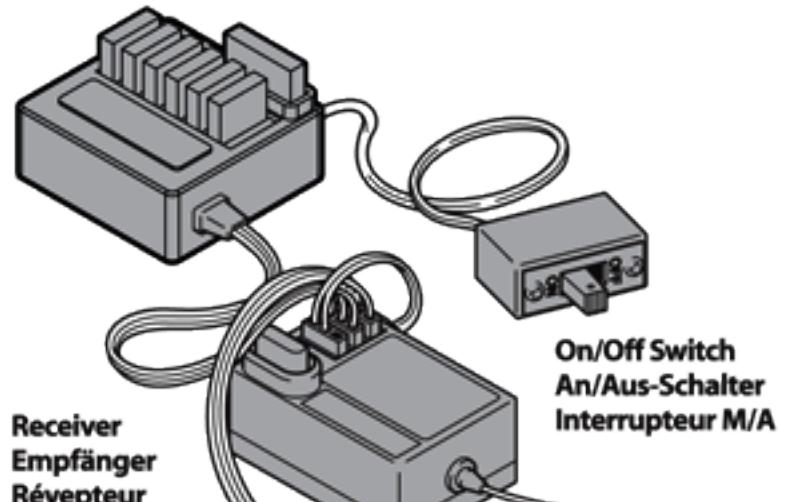
**8X**

Stick Type  
Steuerknüppel-Typ  
Type manches

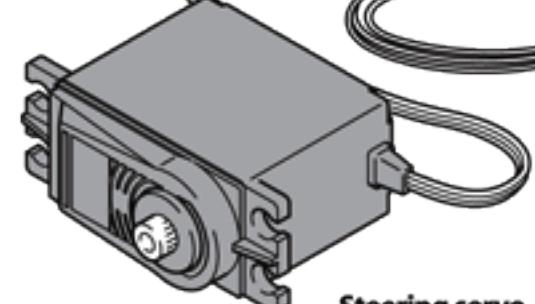


Wheel & Trigger Type  
Pistolen-Griff Typ  
Type Volant et gachette

Electronics Speed Control with Dual Motor Capabilities  
Electronics Speed Control  
Elektrischer Fahrtenregler  
Contrôleur de Vitesse électronique

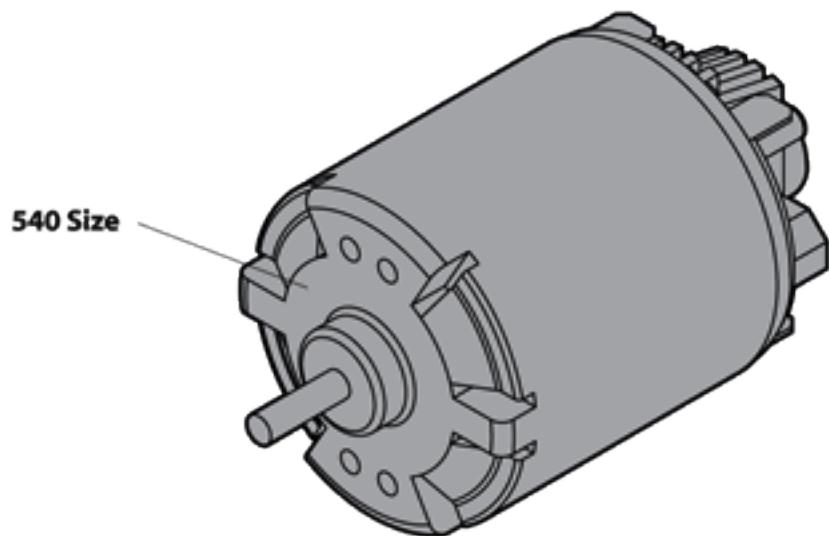


Receiver  
Empfänger  
Récepteur



Steering servo  
Lenkservo  
Servo de direction

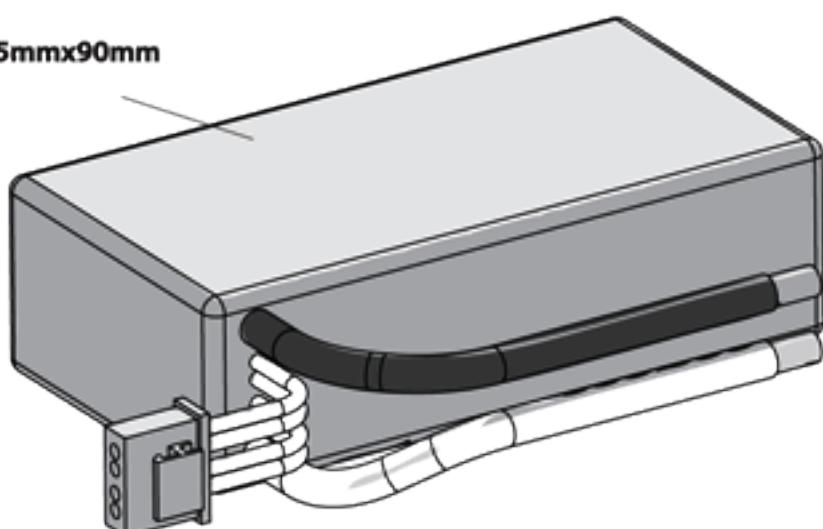
### Motor / Motoren / Moteur



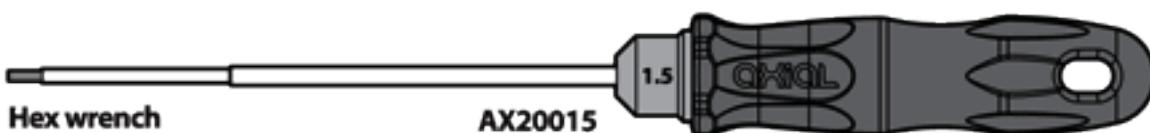
### Battery / Akku / Batterie

#### Battery / Akku / Batterie

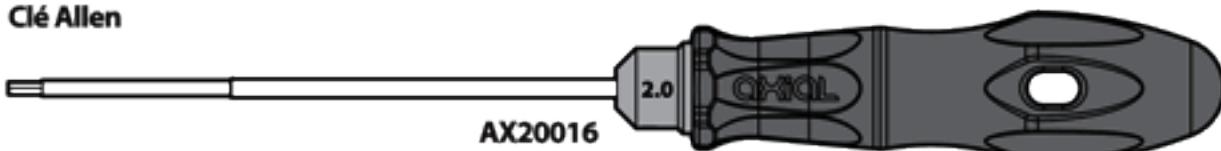
Battery :  
Maximum size 30mmx25mmx90mm



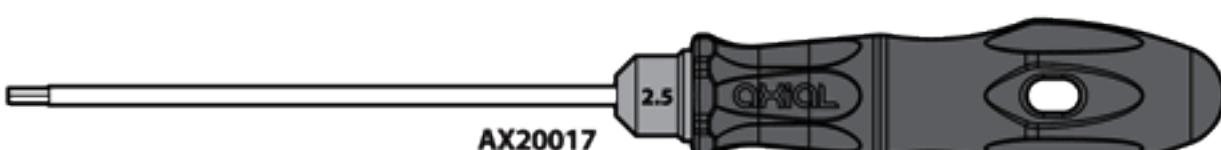
### Tools Recommended / Benötigte Werkzeuge / Outilage



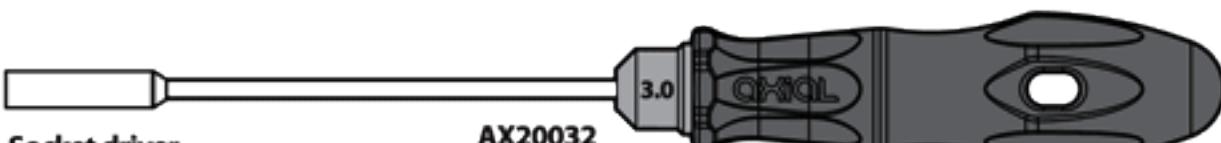
Hex wrench  
Inbusschlüssel  
Clé Allen



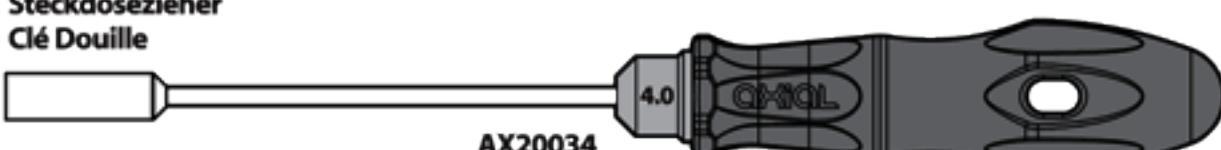
AX20016



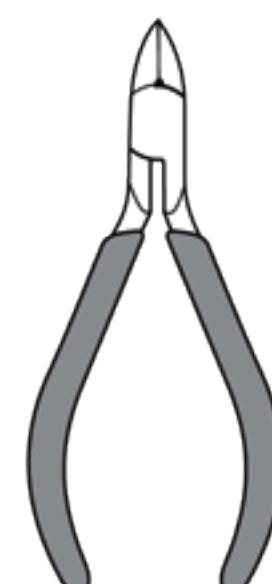
AX20017



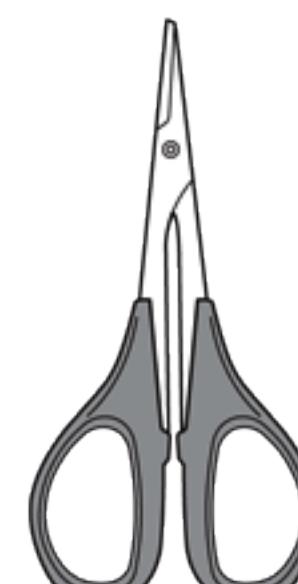
Socket driver  
Steckdosezieher  
Clé Douille



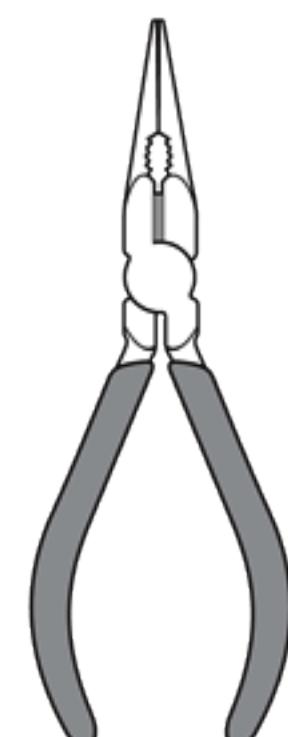
AX20034



Side cutter  
Seitenschneider  
Pinces coupantes



Curved scissors  
Schere  
Ciseaux



Long nose pliers  
Flachzange  
Pinces à becs longs

Modeling knife  
Modelliermesser  
Couteau de modéliste



## Warranty Info

### Axial Limited Warranty (USA)

Your Axial product is warranted to be free of defects in materials and workmanship when new. This warranty does not cover damages due to normal wear and tear, user's failure to perform routine maintenance, user error of assembly or installation, user modifications, addition of aftermarket parts or option parts. This warranty lasts as long as the original purchaser owns the product, and is not transferable (Verified by dated itemized sales receipt). In the event of a defect under this warranty, Axial will, at our discretion, repair or replace the product, provided our inspection indicates that an original defect exists. Axial reserves the right to replace any product which is no longer available with a product of comparable value and function. If Axial determines the repair is not covered under warranty guidelines, there could be a charge applied for the repair and return shipping charges.

### International Customers Warranty

Please return product to the dealer where the purchase was made. If your Axial product purchase was made through an on-line retailer, any warranty issues must be taken care of by that retailer. Axial assumes no responsibility for Axial products sold internationally by on-line retailers.

### Service

If you need service on your Axial product here are some simple steps to follow when sending in product in for Warranty/ Repair.

#### STEP 1:

Contact Axial Customer Service at 949-600-8642 Ext: 206 to receive a Return Merchandise Number (RMA#). **Note:** Axial requires the RMA# to be placed on the return merchandise box when shipped to Axial.

#### STEP 2:

Please write a short note explaining the issue you experienced with the product.

#### STEP 3:

Include your return address with a daytime phone number and /or e-mail address.

#### STEP 4:

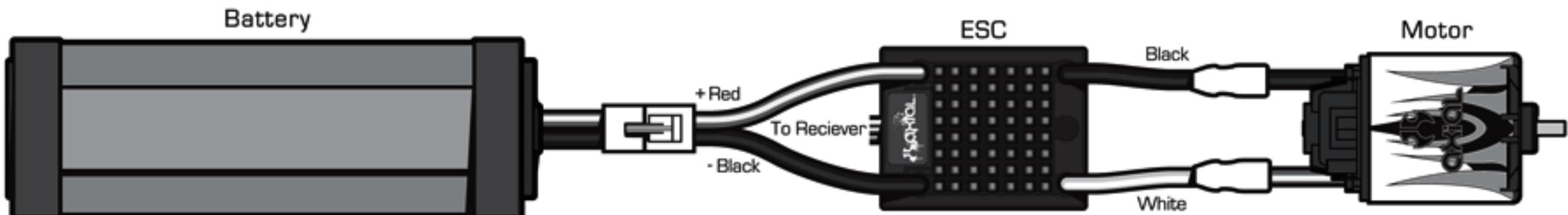
Please include a Money Order in the amount \$10.00 made payable to Axial for return shipping costs although If product is found to be under Axial Warranty coverage, the \$10.00 will be refunded to you.

**PLEASE NOTE:** Tuning issues are not covered under the Axial Warranty and shipping fee's do apply.

Please allow 5-10 working days for product to be returned. Axial ships using United Postal Service Priority mail or UPS Ground. Any expedited shipping must be arranged and prepaid by customer. Axial will not be responsible for lost or damaged packages.

AX24259

AE-2 Forward/Reverse ESC Instructions



#### Setup:

- Mount the ESC in an area that is well ventilated and isolated from vibration and shock.
- Connect the ESC wires to the motor.
- Plug the receiver wire into the throttle channel on the receiver.
- Before plugging the battery into the ESC, make sure your transmitter is on and the throttle trim is set at zero.
- Plug in the battery to the ESC with the ESC switch in the OFF position.
- Apply full throttle on the transmitter.
- Turn on the ESC switch while applying full throttle.
- The ESC will emit a series of beeps with the red LED.
- Continue applying full throttle until the ESC blinks green and emits a series of beeps.
- Once the esc blinks red, apply full brake/reverse.
- The ESC will emit a series of beeps while blinking red to finalize the brake/reverse endpoint.
- Return the throttle to the neutral position and the ESC will emit a series of beeps to finalize the neutral point.
- The ESC will emit a final series of beeps confirming the ESC is ready to work.
- Apply throttle to make sure the motor is going the direction you wanted. To reverse the direction of the motor, switch the wires going to the motor.

**Do not reverse the battery wire connections! Reversing the battery polarity will permanently damage the ESC.**

#### Specifications:

<b>Input voltage:</b>	6 Cell Ni/2S LiPo
<b>Size:</b>	1.7 inx1.24 in
<b>Weight:</b>	45 grams
<b>Motor Limit:</b>	19T
<b>On-Resistance FET:</b>	.0018
<b>Rated/Peak Current:</b>	106A Peak
<b>Braking Current:</b>	106A Peak
<b>BEC Voltage/A:</b>	5.0V 2.0A Peak
<b>PWM Frequency:</b>	6 KHZ

#### Notes:

- If ESC setup does not initialize when holding the full throttle, try switching the throttle reversing switch on the transmitter.
- LiPo Cut-Off is set to "ON" from the factory.
- Use the Castle Link to access the advanced settings in the ESC.

Visit <http://www.castlecreations.com/> for more information on the Castle Link USB Programming Kit.



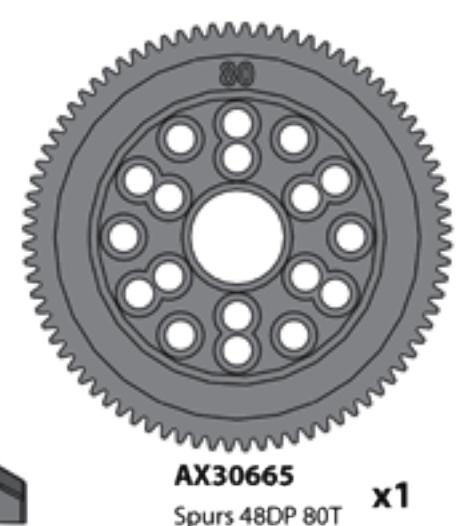
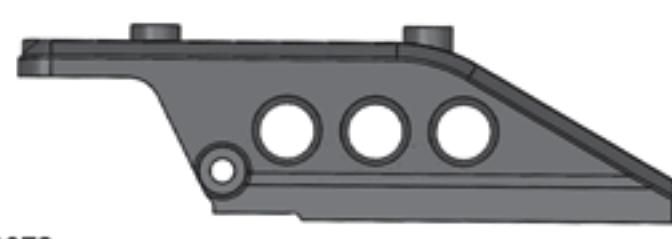
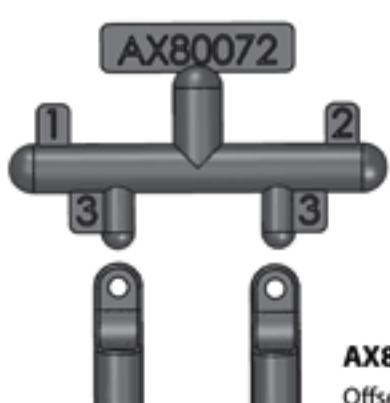
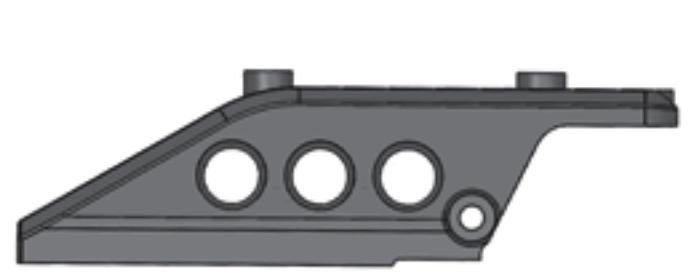
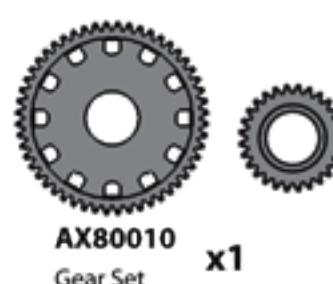
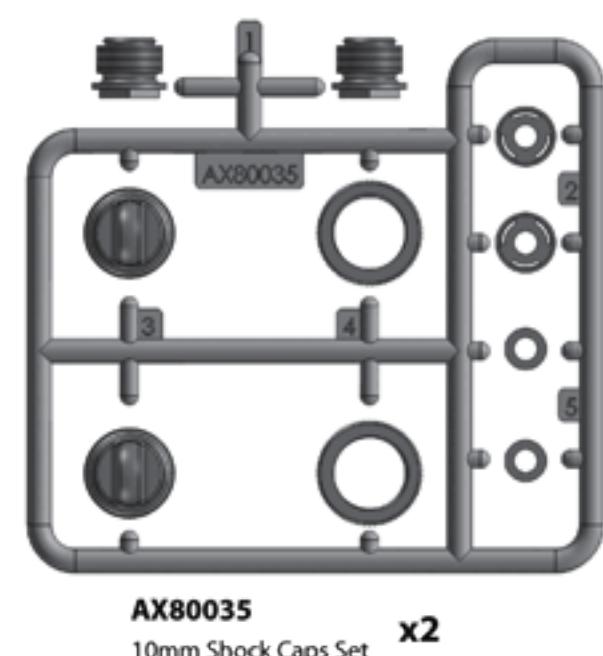
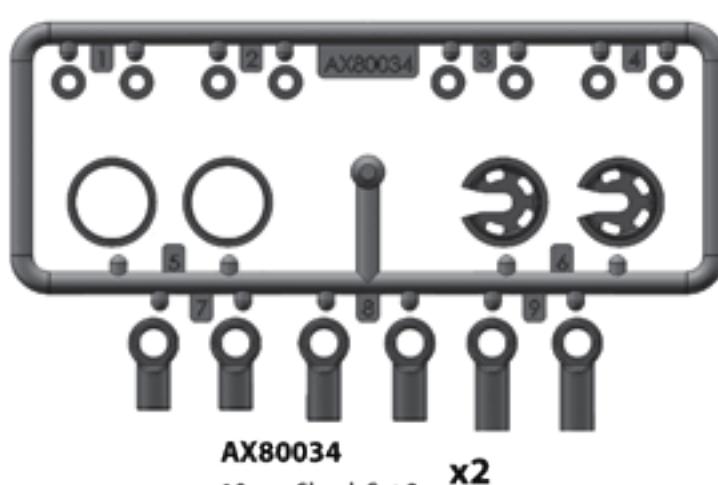
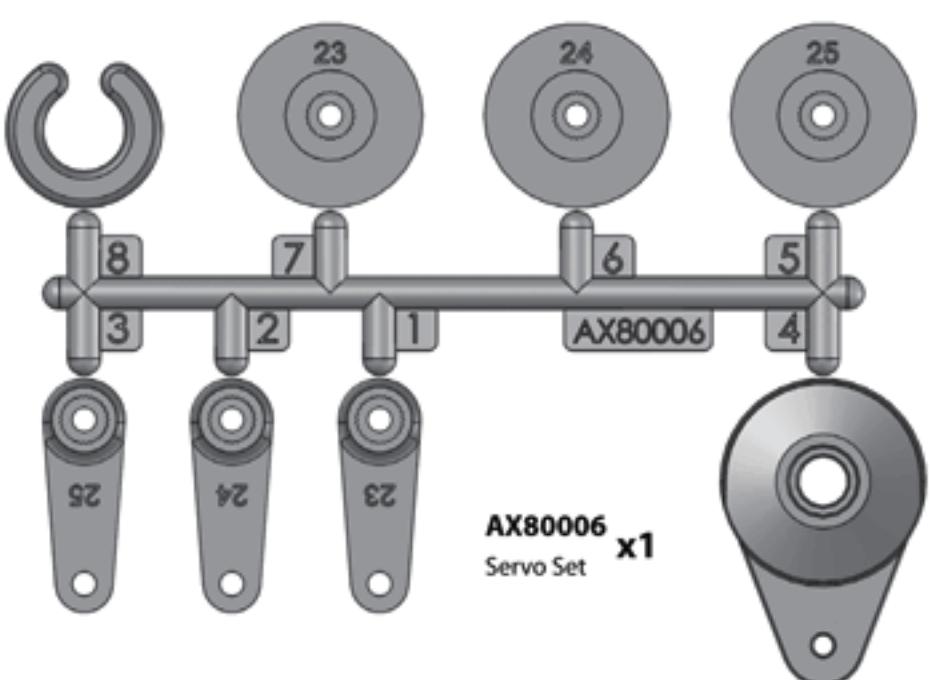
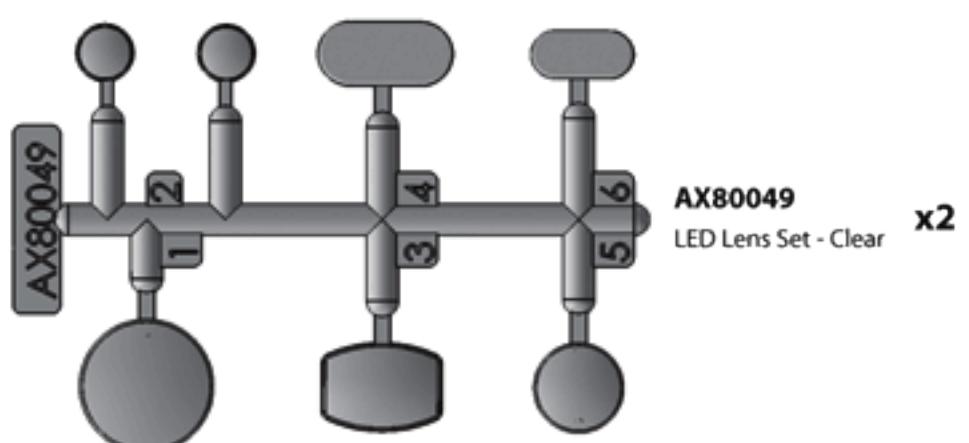
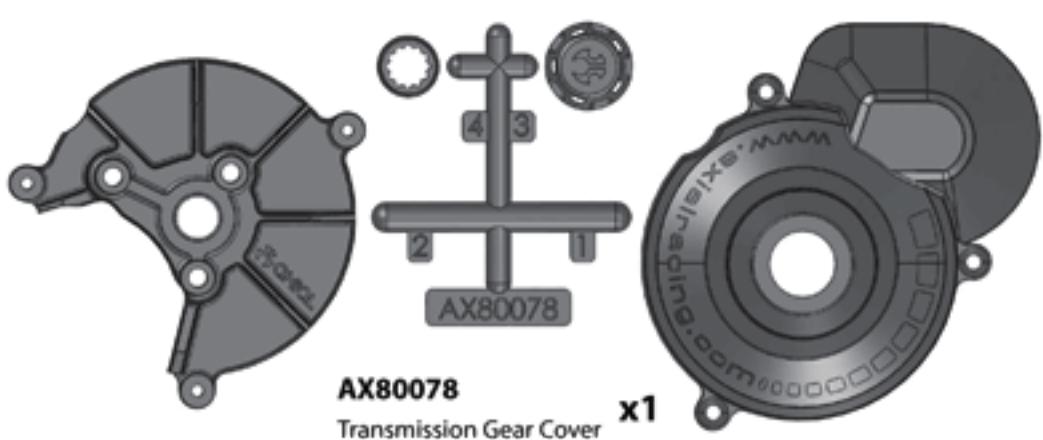
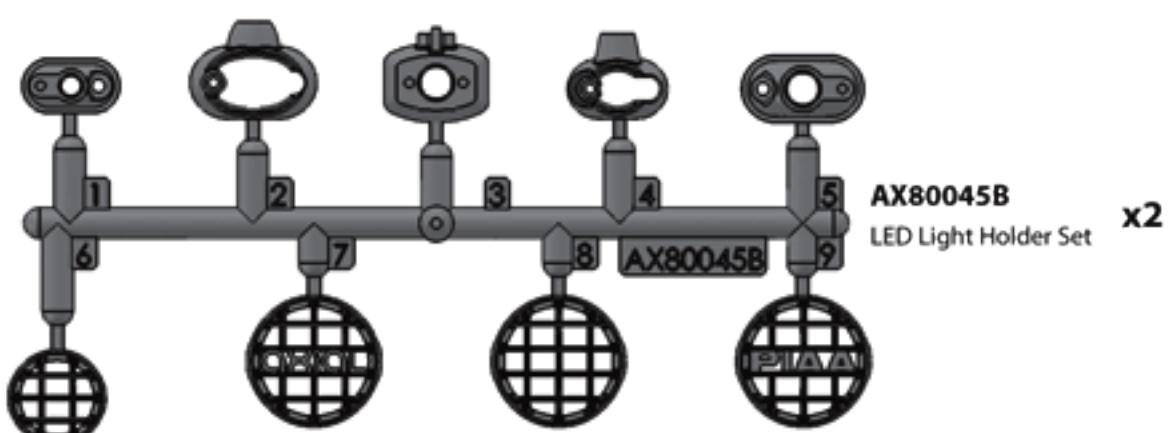
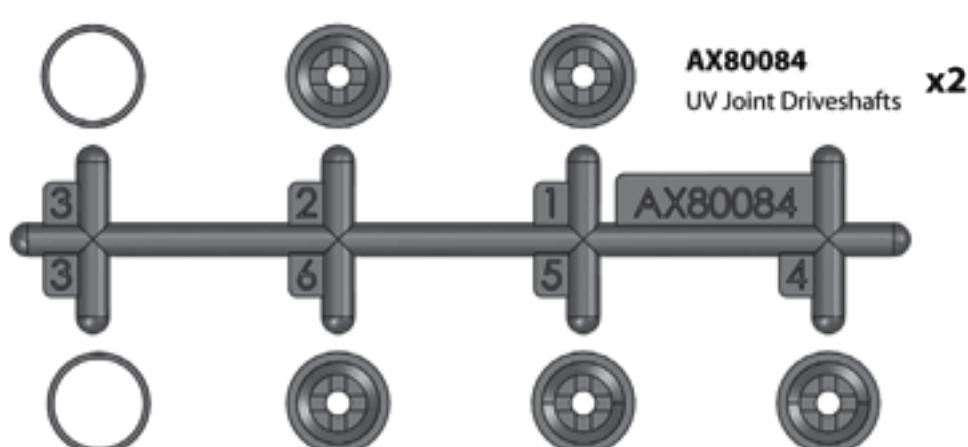
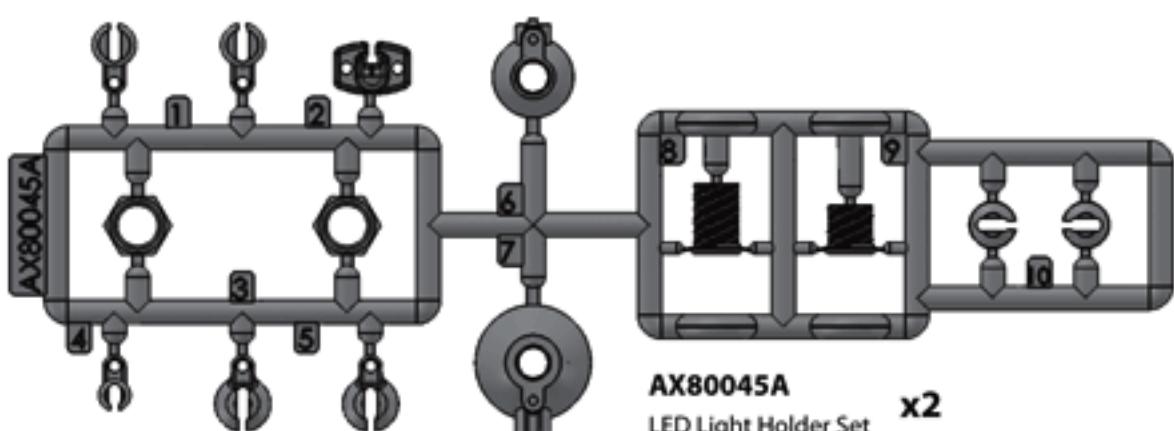
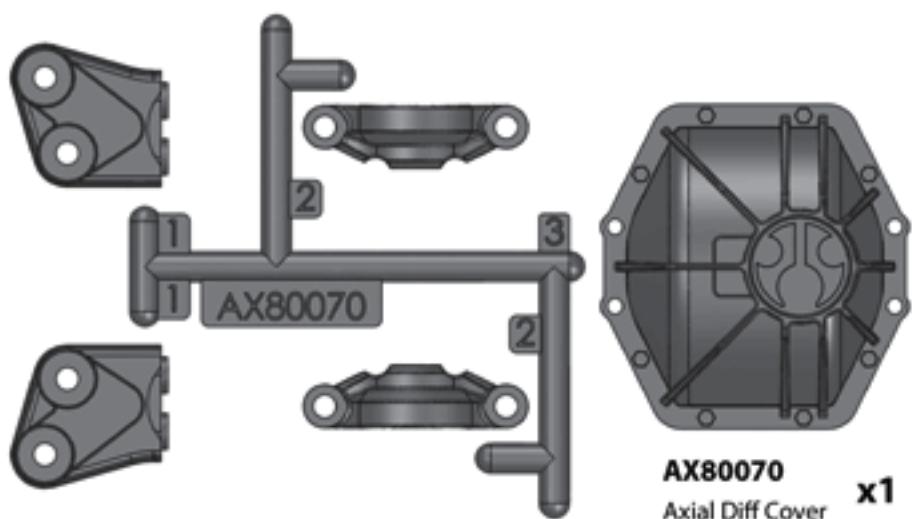
CONNECT THE BATTERY PACK JUST BEFORE DRIVING AND DISCONNECT IT IMMEDIATELY AFTER.

ALWAYS MAKE SURE YOU ARE CONNECTING THE ESC TO A PROPER POWER SOURCE THAT HAS THE CORRECT VOLTAGE & POLARITY. INCORRECT VOLTAGES OR REVERSED POLARITY WILL DAMAGE THE ESC.

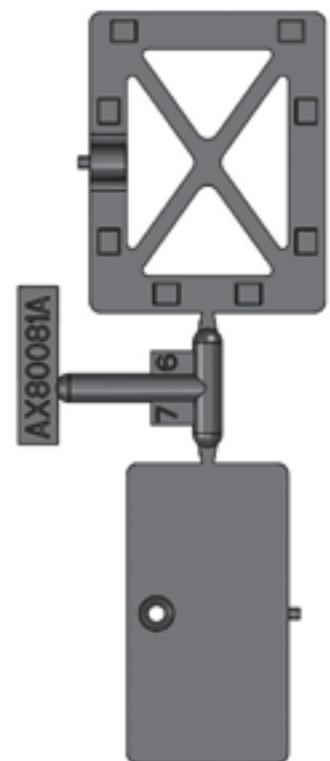
ONCE THE BATTERY PACK IS CONNECTED, HANDLE THE MODEL WITH EXTREME CARE, MAKE SURE YOU ARE CLEAR OF ALL ROTATING PARTS.

AX24259-I001

## Parts Reference / Übersicht aller Teile / Référence des pièces



**AX80088**  
Rock Buggy Main Frame **x1**



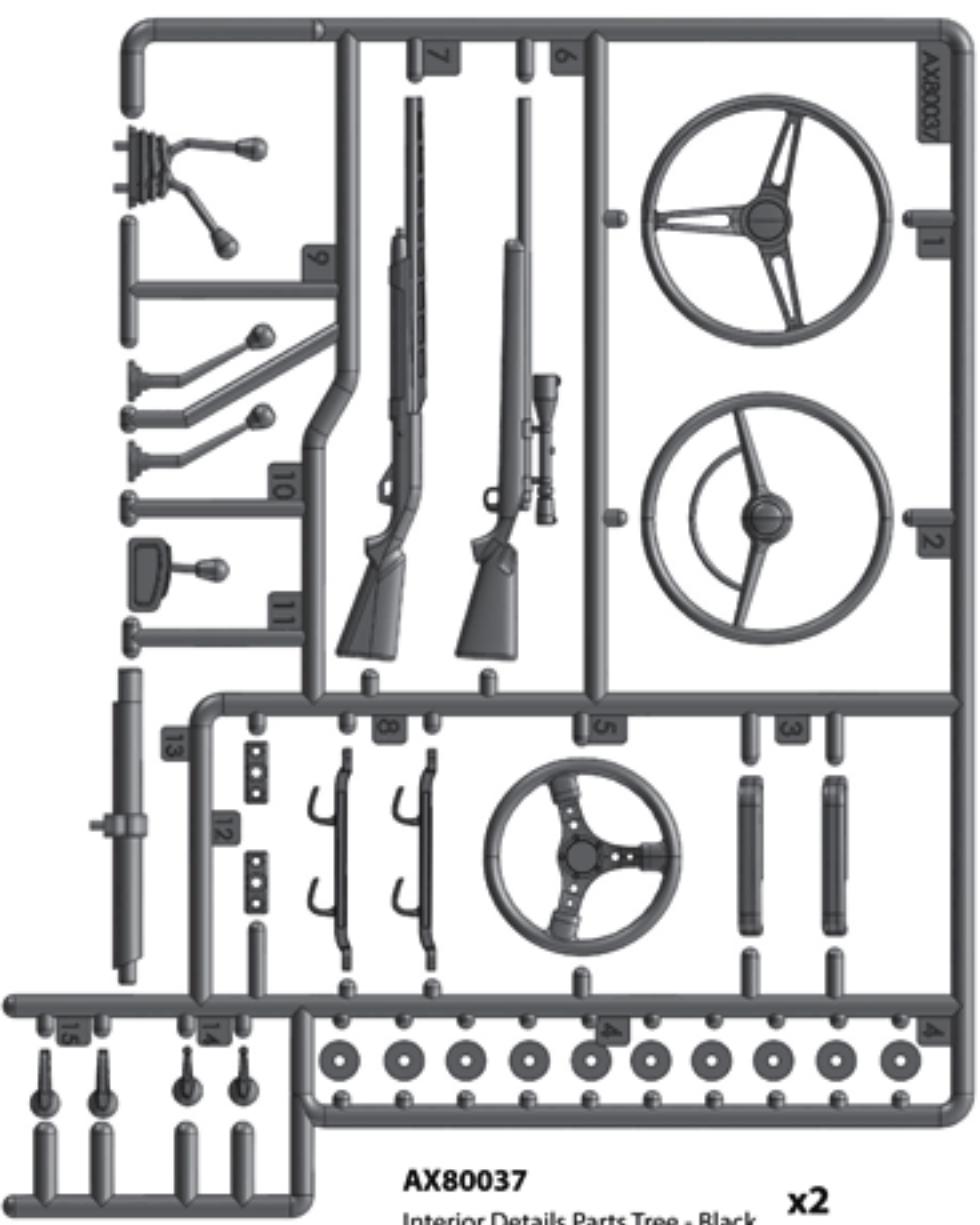
**AX80077**  
Rock Buggy Front End 1 **x1**



**AX80087**  
Rock Buggy Main Frame **x1**

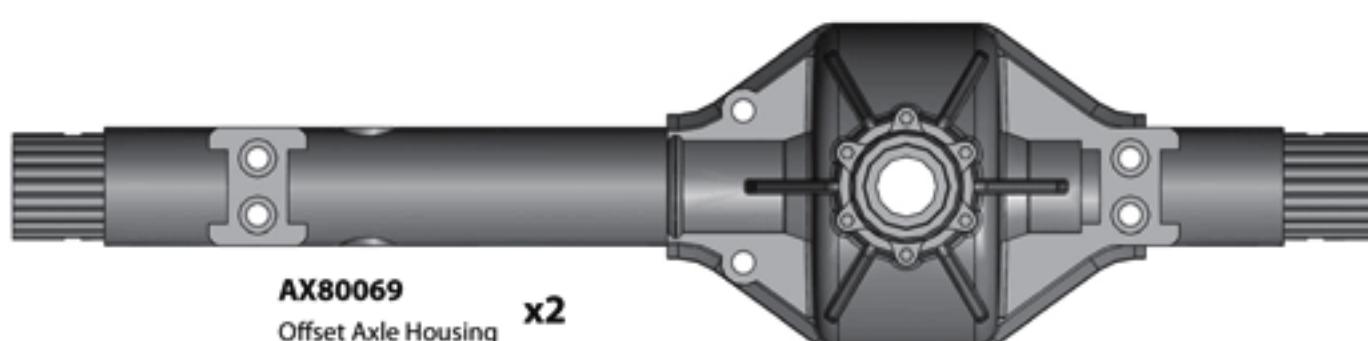
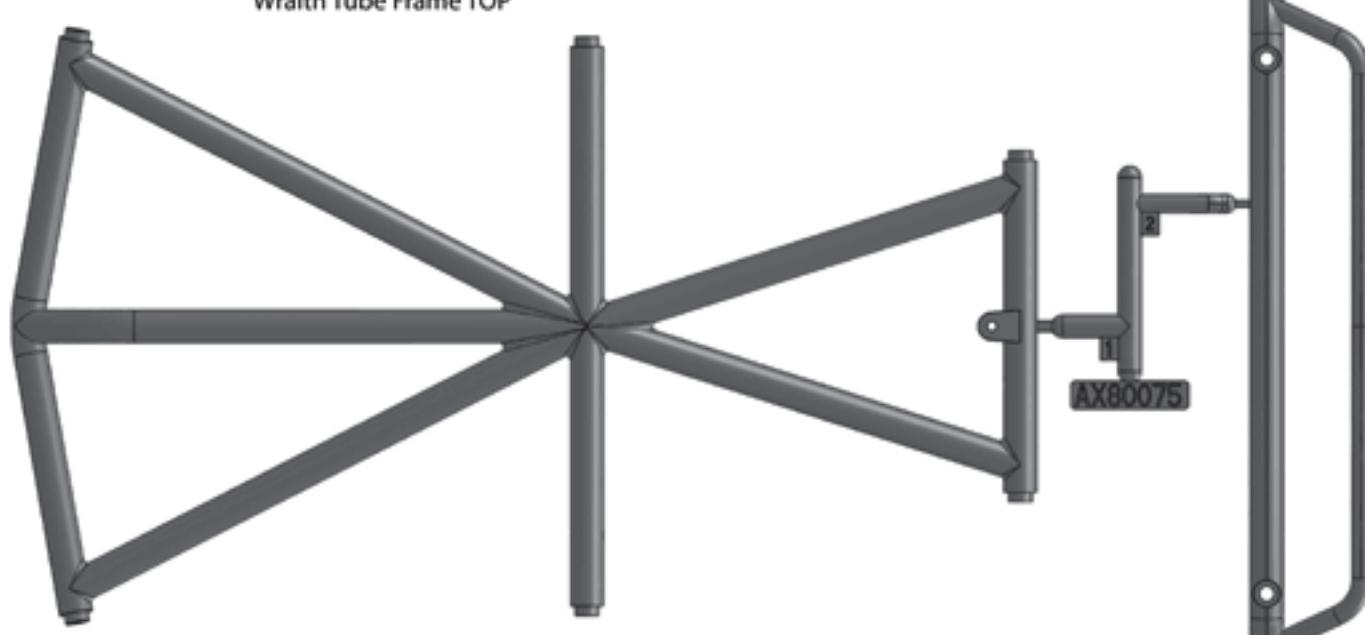


**AX80083**  
Rock Buggy Links Set **x2**

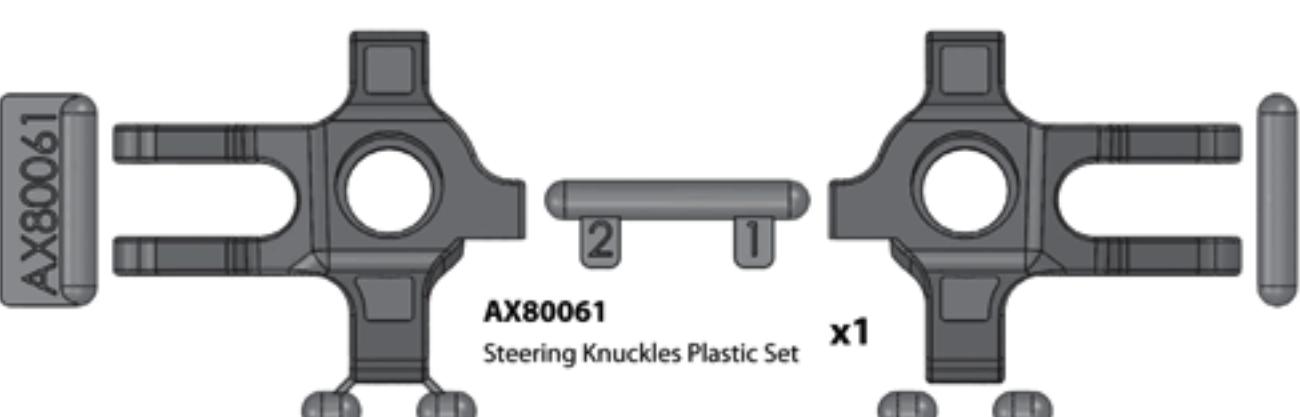
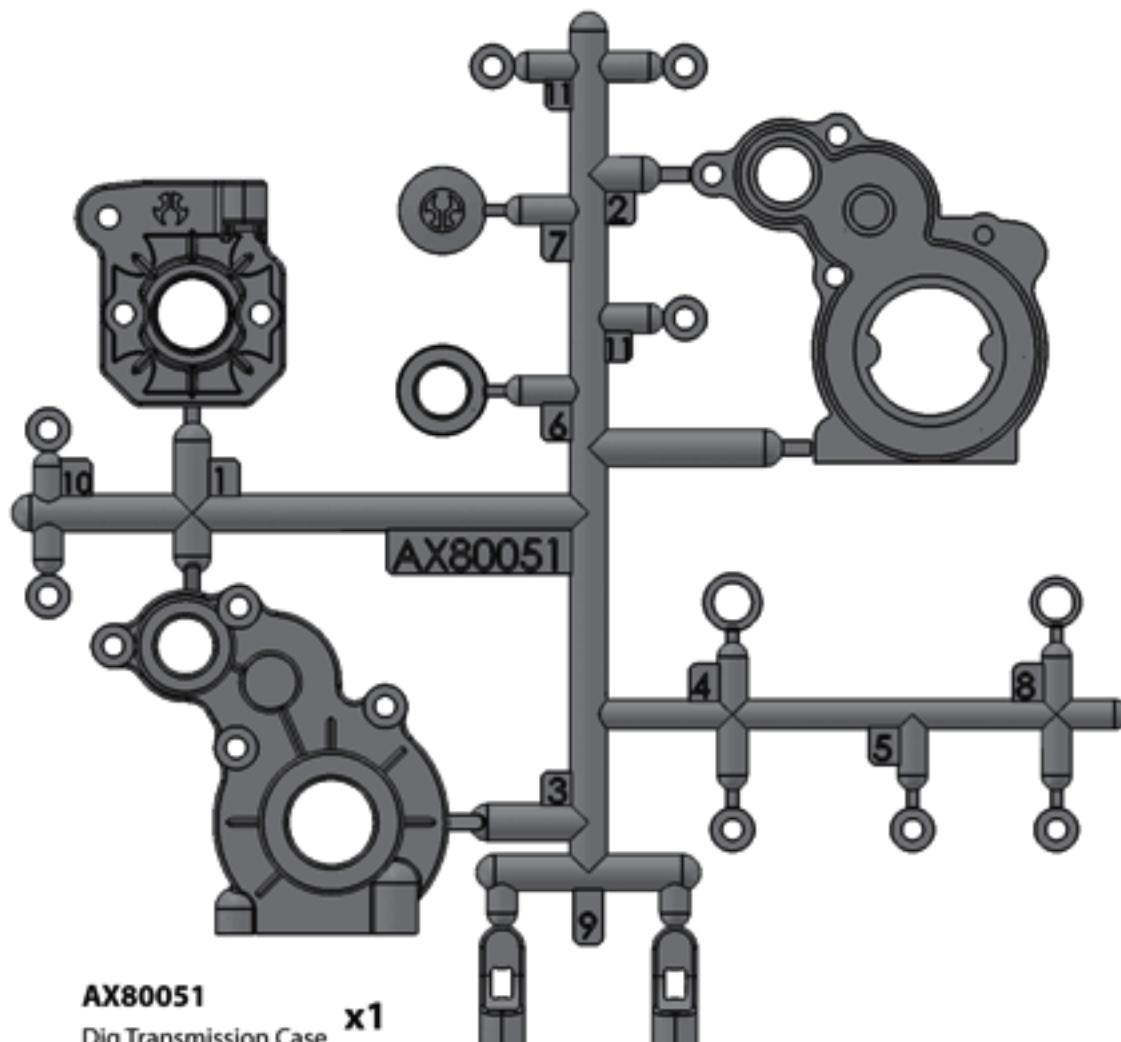
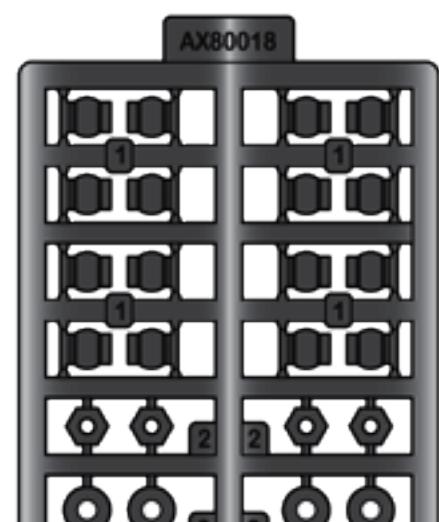
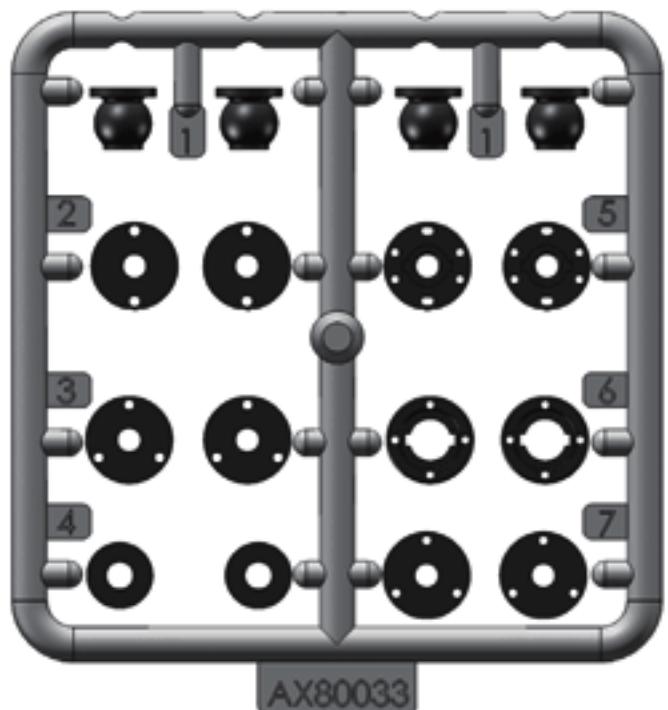


**AX80037**  
Interior Details Parts Tree - Black **x2**

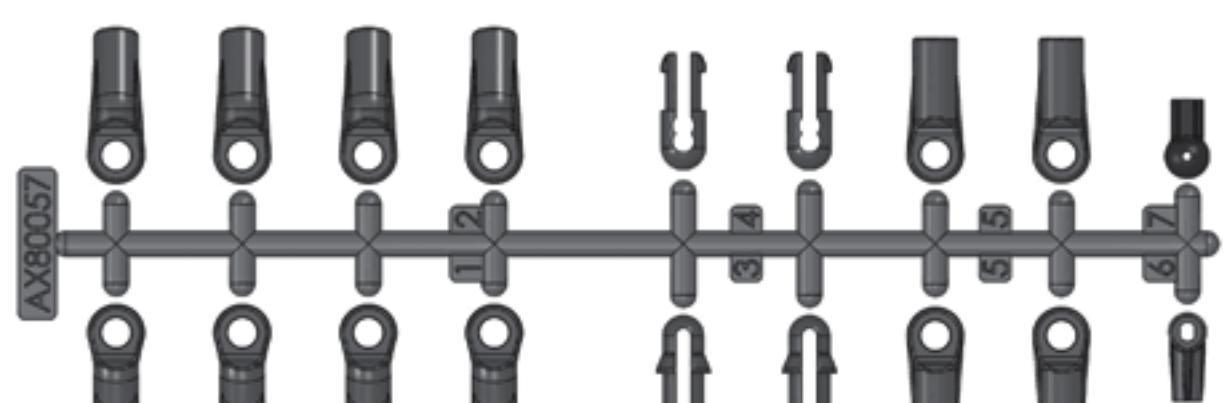
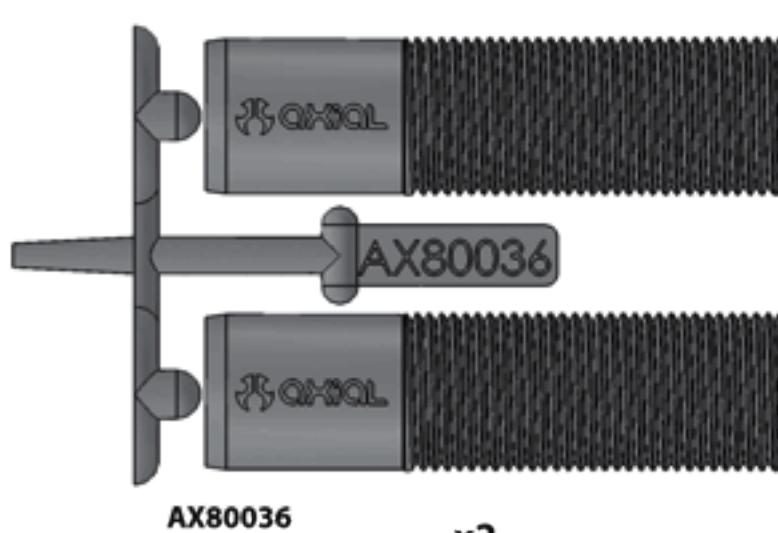
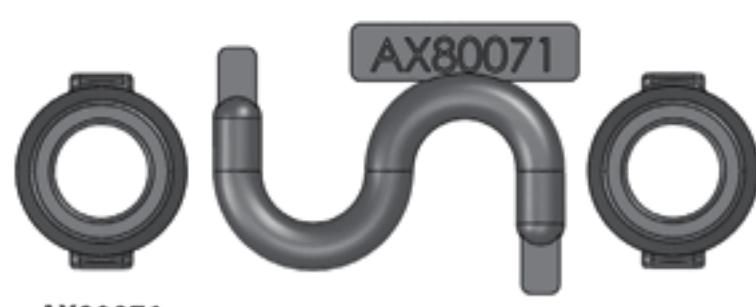
**AX80075**  
Wraith Tube Frame TOP **x1**

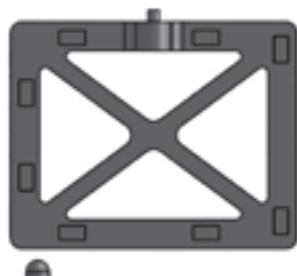
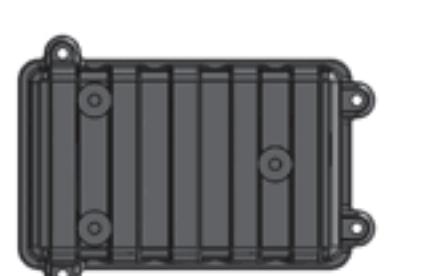


**AX80069**  
Offset Axle Housing **x2**



AX80051  
Dig Transmission Case

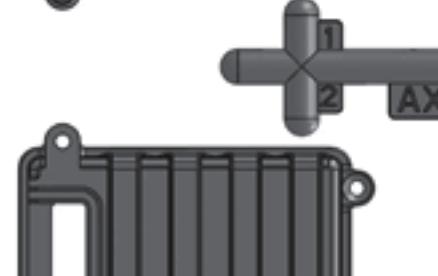




AX80090

Corbeau LG1 Seat(Black)

x2



AX80081

Radio Case

x1

x1



AX80079

Rock Buggy Skid Plate/Battery Tray

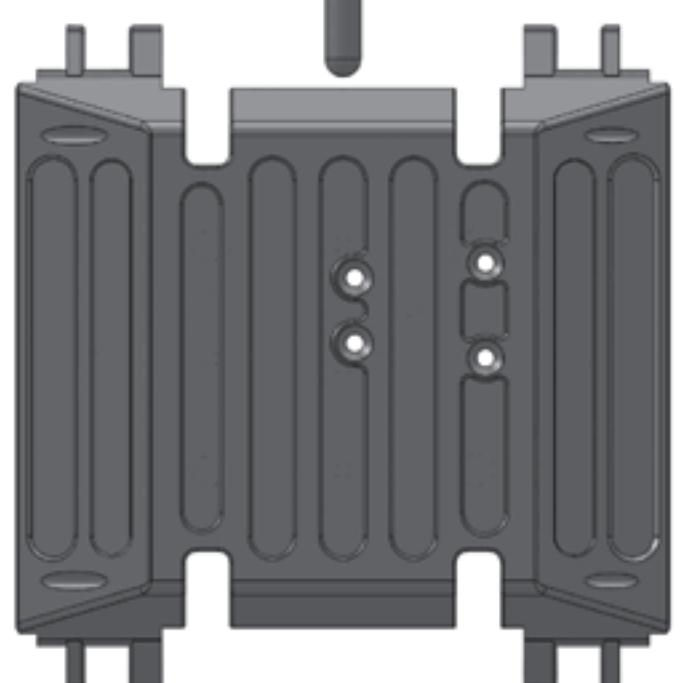
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AX80079-002

AX80076

Rock Buggy Battery Brace

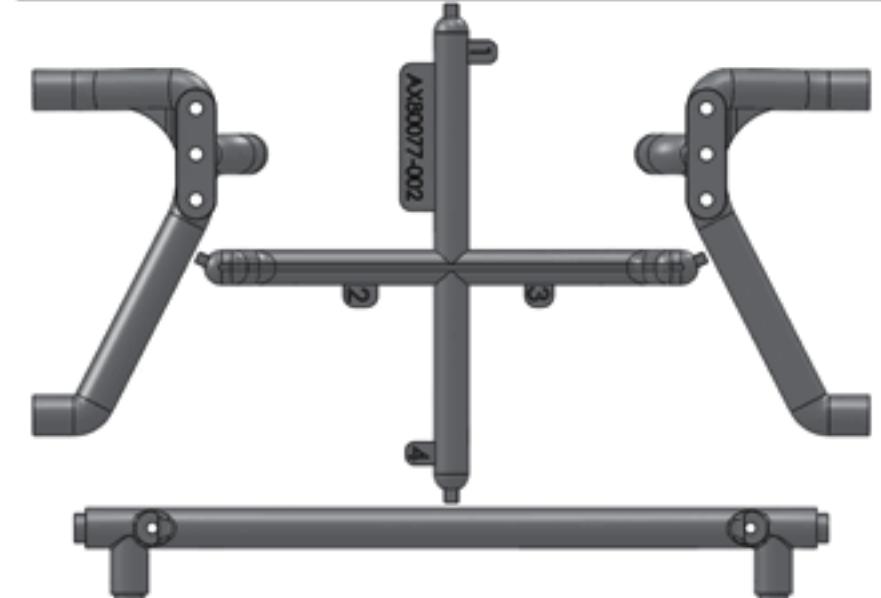
x2



AX80089

Rock Buggy Front End 2

x1



AX80074

Rock Buggy Main Frame

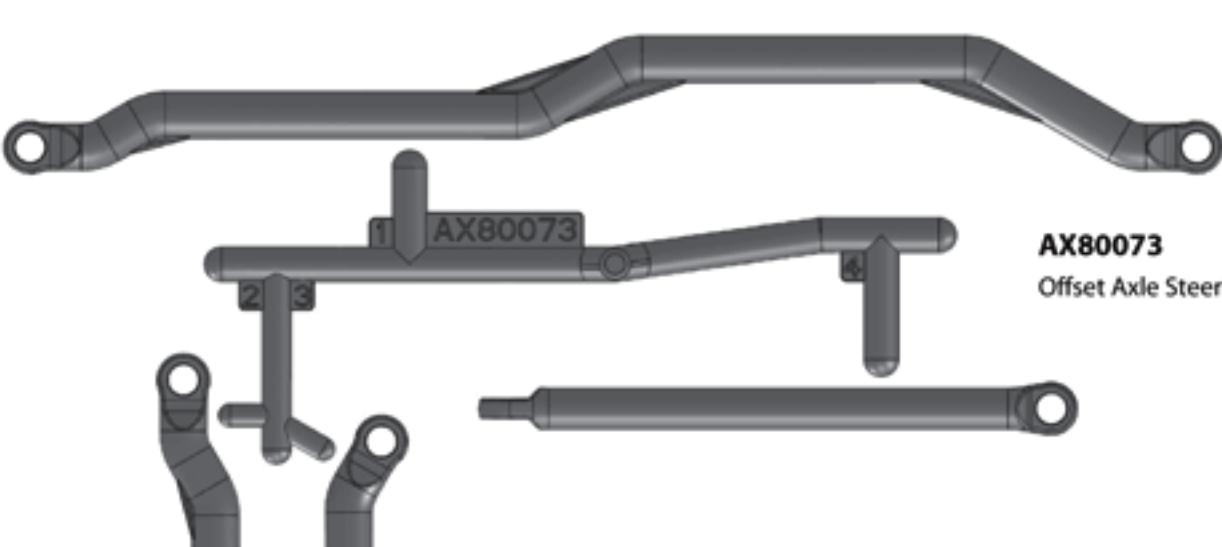
x1



AX80076

Rock Buggy Rear Brace Set

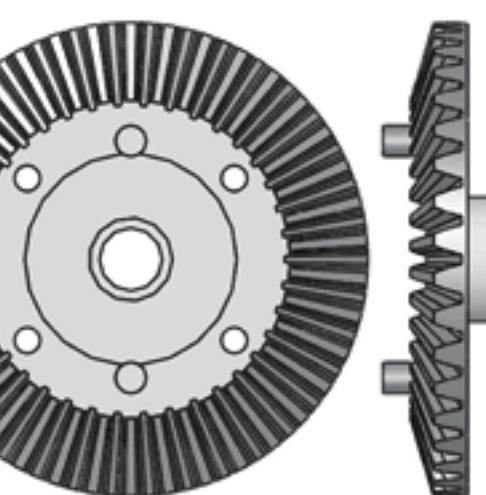
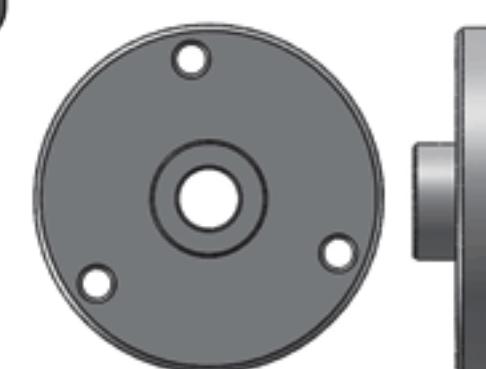
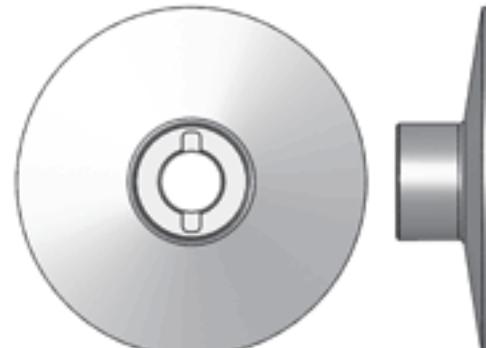
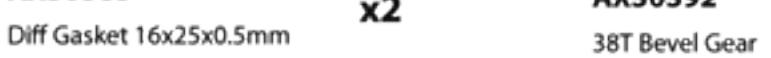
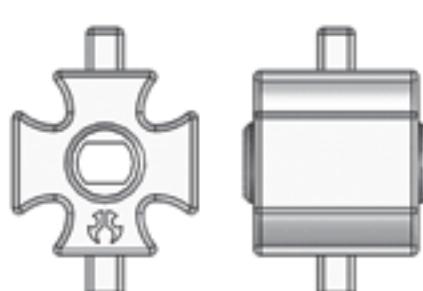
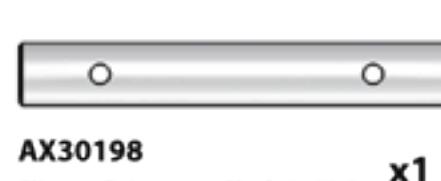
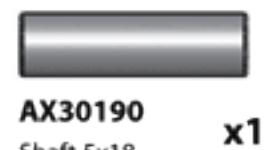
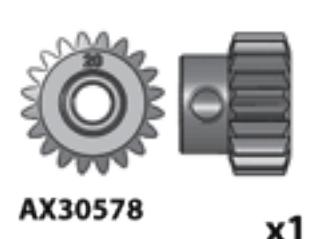
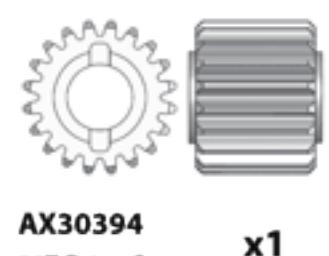
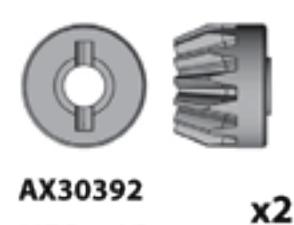
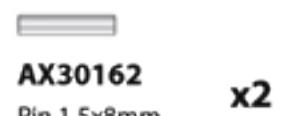
x1



AX80073

Offset Axle Steering Link

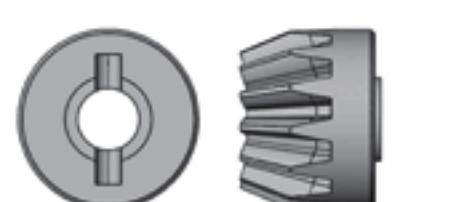
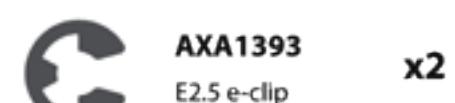
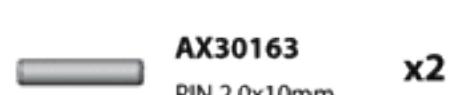
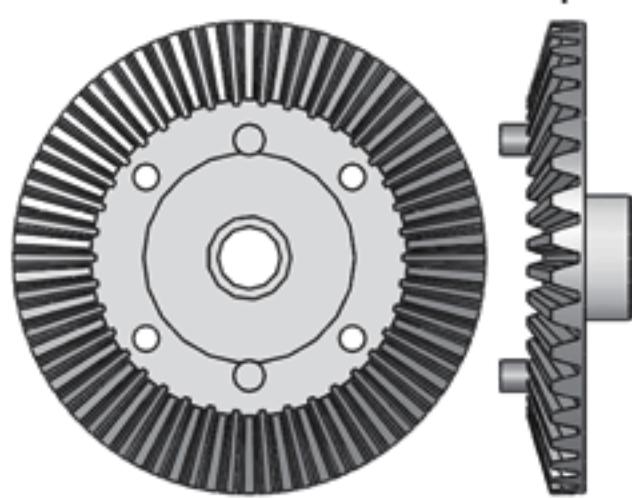
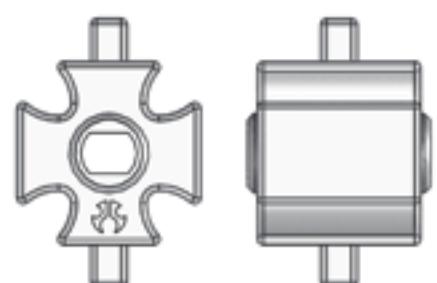
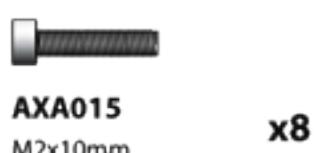
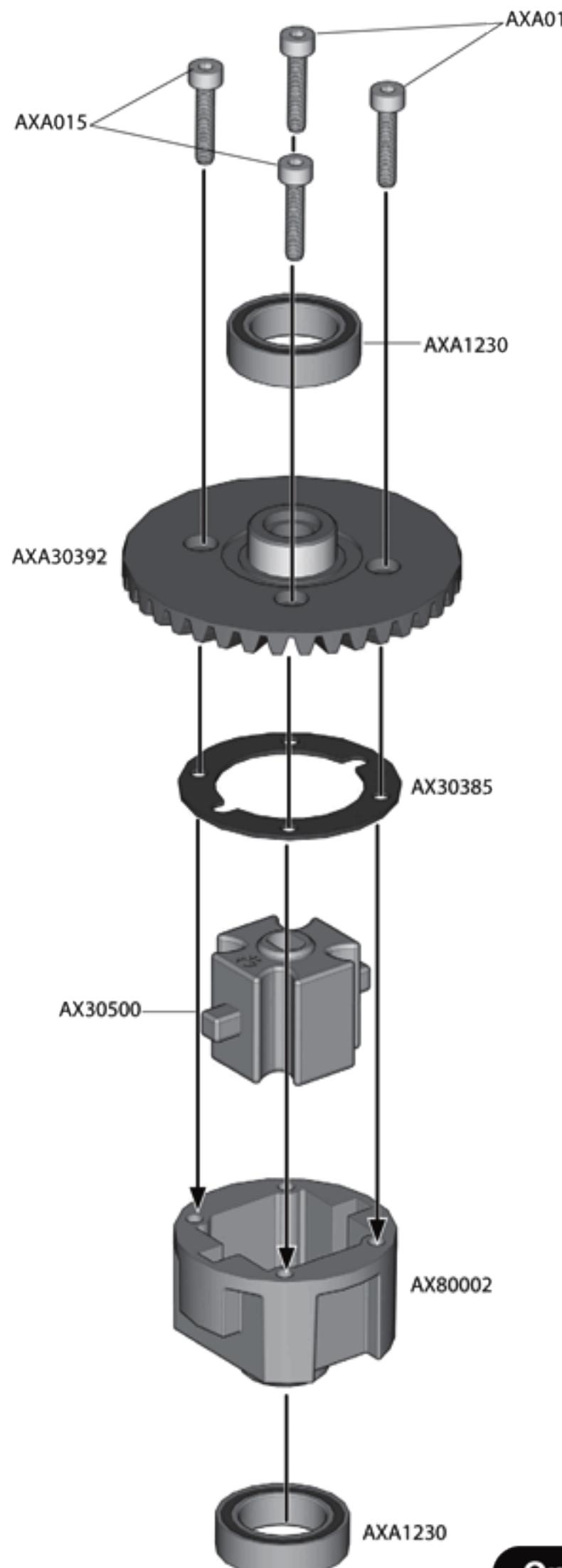
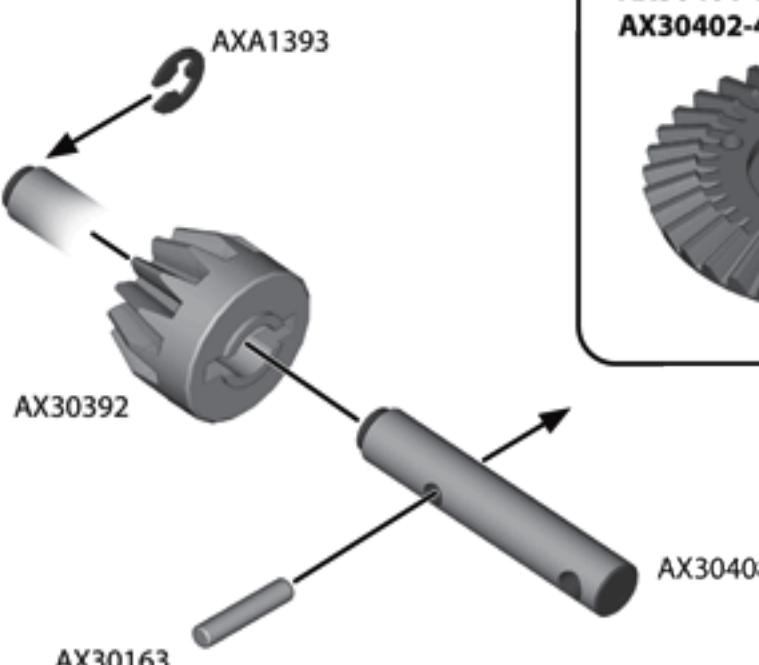
x1



	AXA1040 M3 Thin Hex Nut	x2		AXA1280 M3x10mm Servo Flange Screw	x4		AXA0414 M2.6x10mm	x6
	AXA1041 M2.5 Nylon Lock Nut	x4		AXA1356 Silicone Shock Bushing 7.5x8mm	x4		AXA0416 M2.6x18mm	x2
	AXA1052 M3 Thin Nylon Locking Hex Nut	x20		AXA1393 E2.5 e-clip	x2		AXA463 M3x6mm	x2
	AXA1053 M3 Nylon Locking Hex Nut	x1		AXA1045 M4 Nylon Lock Nut	x5		AXA464 M3x8mm	x3
	AXA1069 Washer 2.7x6.7x0.5 mm	x6		AXA013 M2x6mm	x19		AXA465 M3x10mm	x7
	AXA1070 Washer 3x6x0.5 mm	x6		AXA015 M2x10mm	x16		AXA466 M3x12mm	x6
	AXA1071 Washer 4x8x0.5mm	x1		AXA083 M3x6mm	x5		AXA0422 M2.6x6mm	x29
	AXA1090 Washer 4.8x14 (Green)	x4		AXA087 M3x16mm	x8		AXA433 M3x6mm	x8
	AXA1091 Washer 5x10x0.5mm	x1		AXA089 M3x25mm	x3		AXA434 M3x8mm	x4
	AXA1184 O-Ring 7.5x1.5mm	x4		AXA091 M3x30mm	x2		AXA435 M3x10mm	x16
	AXA1202 O-Ring 3.5x2mm	x8		AXA0113 M3x6mm	x5		AXA436 M3x12mm	x5
	AXA1218 Bearing 5x10x4mm	x4		AXA116 M3x12mm	x2		AXA0437 M3x15mm	x9
	AXA1221 Bearing 5x11x4mm	x11		AXA117 M3x15mm	x3		AXA438 M3x18mm	x46
	AXA1230 Bearing 10x15x4mm	x6		AXA118 M3x18mm	x16		AXA0439 M3x20mm	x4
	AXA1225 Bearing 8x16x5mm	x1		AXA144 M3x8mm	x4		AXA440 M3x25mm	x2
	AXA1243 Bearing 15x21x4mm	x1		AXA0412 M2.6x6mm	x3		AXA441 M3x30mm	x2
				AXA0413 M2.6x8mm	x4			

**A**

## Open Bag A

**1****x2****Option Parts**

Heavy Duty Bevel Gear Set  
**AX30395-38T/13T**  
**AX30401-36T/14T**  
**AX30402-43T/13T**





AXA1221  
Bearing 5x11x4mm

x4



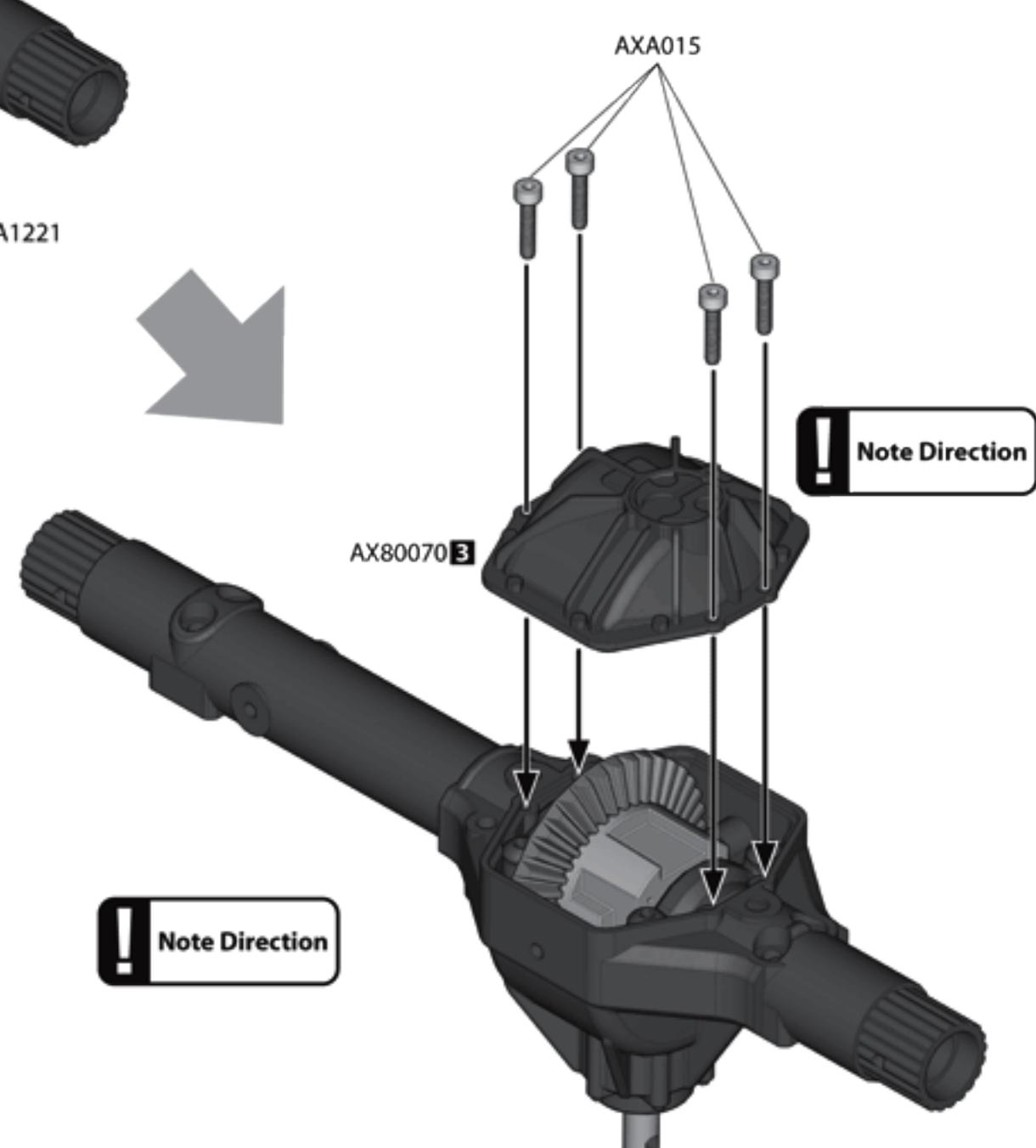
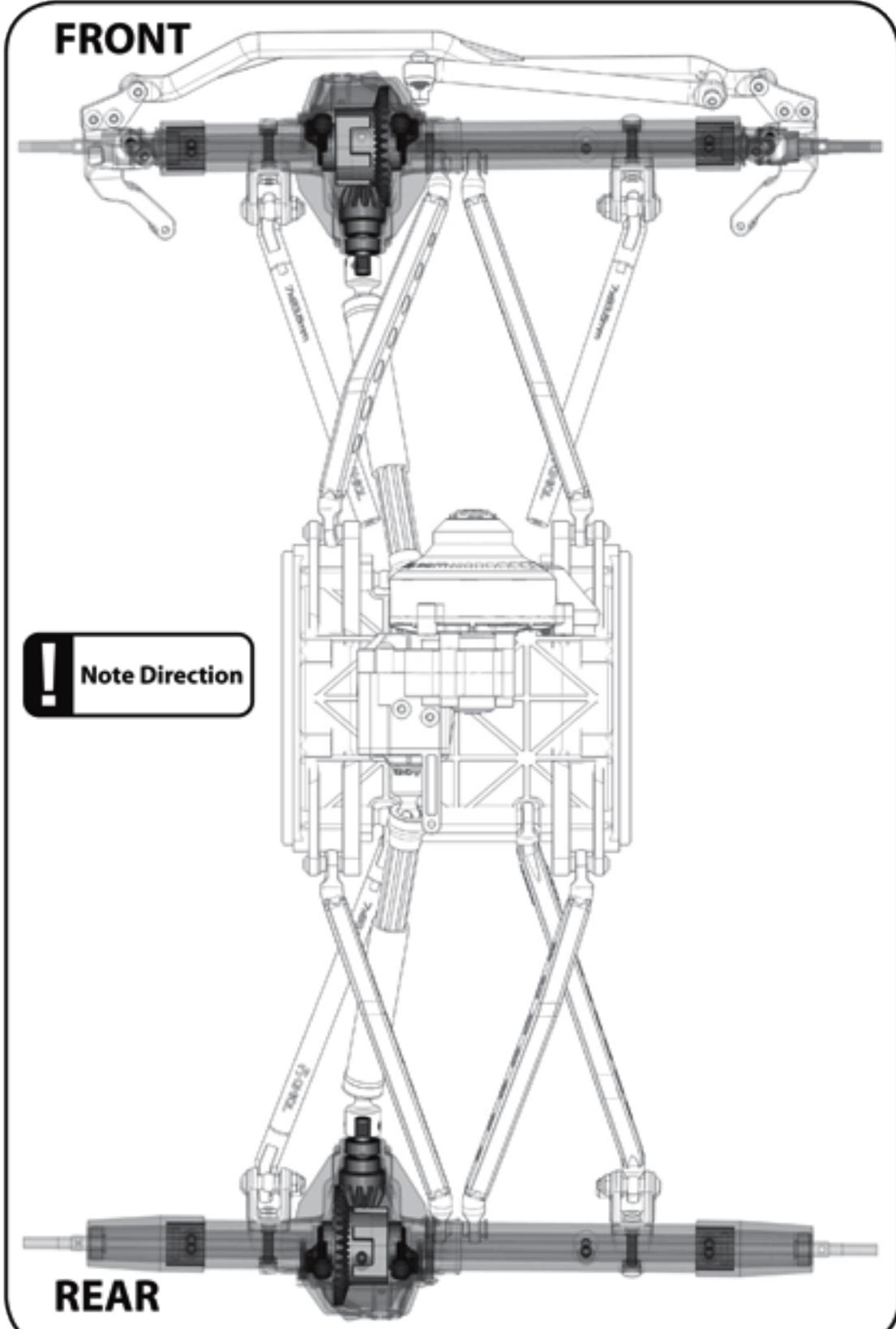
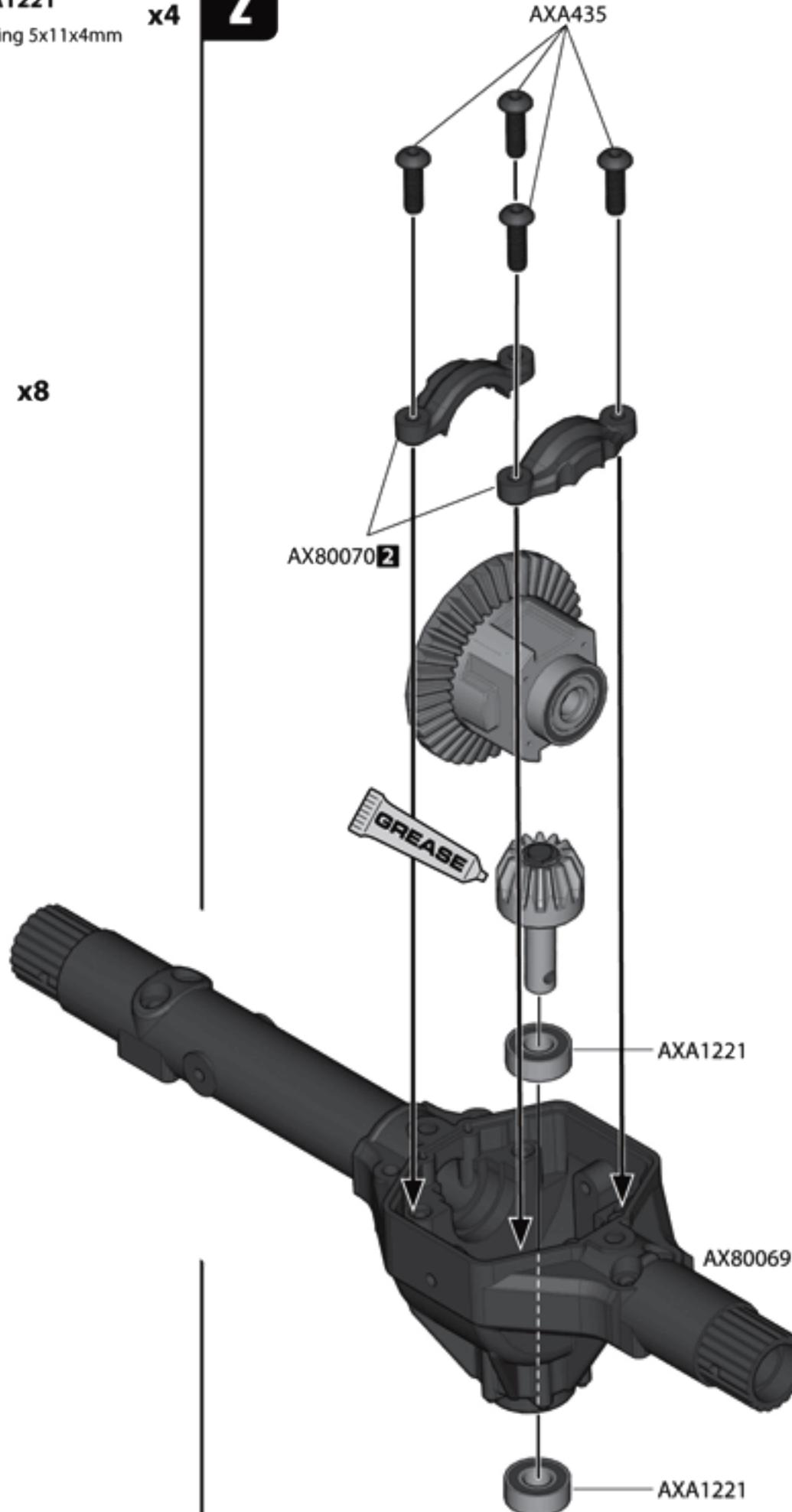
AXA435  
M3x10mm

x8



AXA015  
M2x10mm

x8



## Option Parts



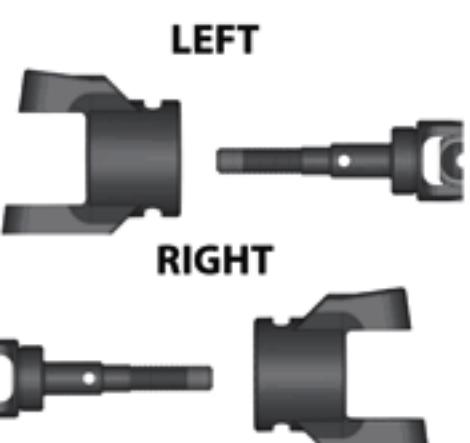
**AX30762**  
Aluminum C Hub Carrier



**AX30760**  
Aluminum Steering Knuckle



**Note Direction**



**AXA1221**  
Bearing 5x11x4mm **x4**



**AXA1230**  
Bearing 10x15x4mm **x2**



**AXA433**  
M3x6mm **x4**



**AXA435**  
M3x10mm **x4**



**AX30450**  
Flange Pipe 3x4.5x5.5 **x4**

**3**

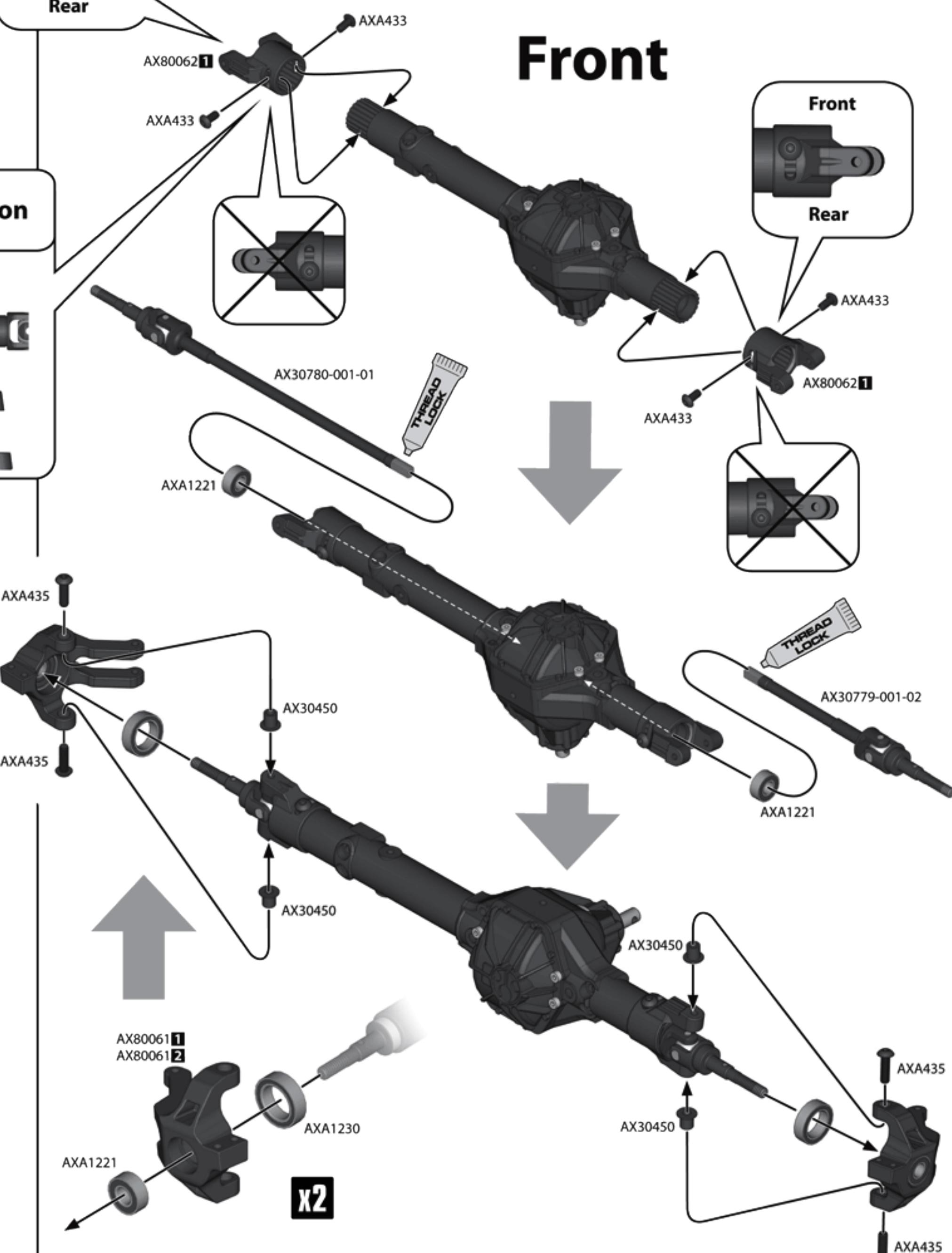


**AX30780-001-01**  
Axe Shaft Long **x1**



**AX30779-001-02**  
Axe Shaft Short **x1**

# Front



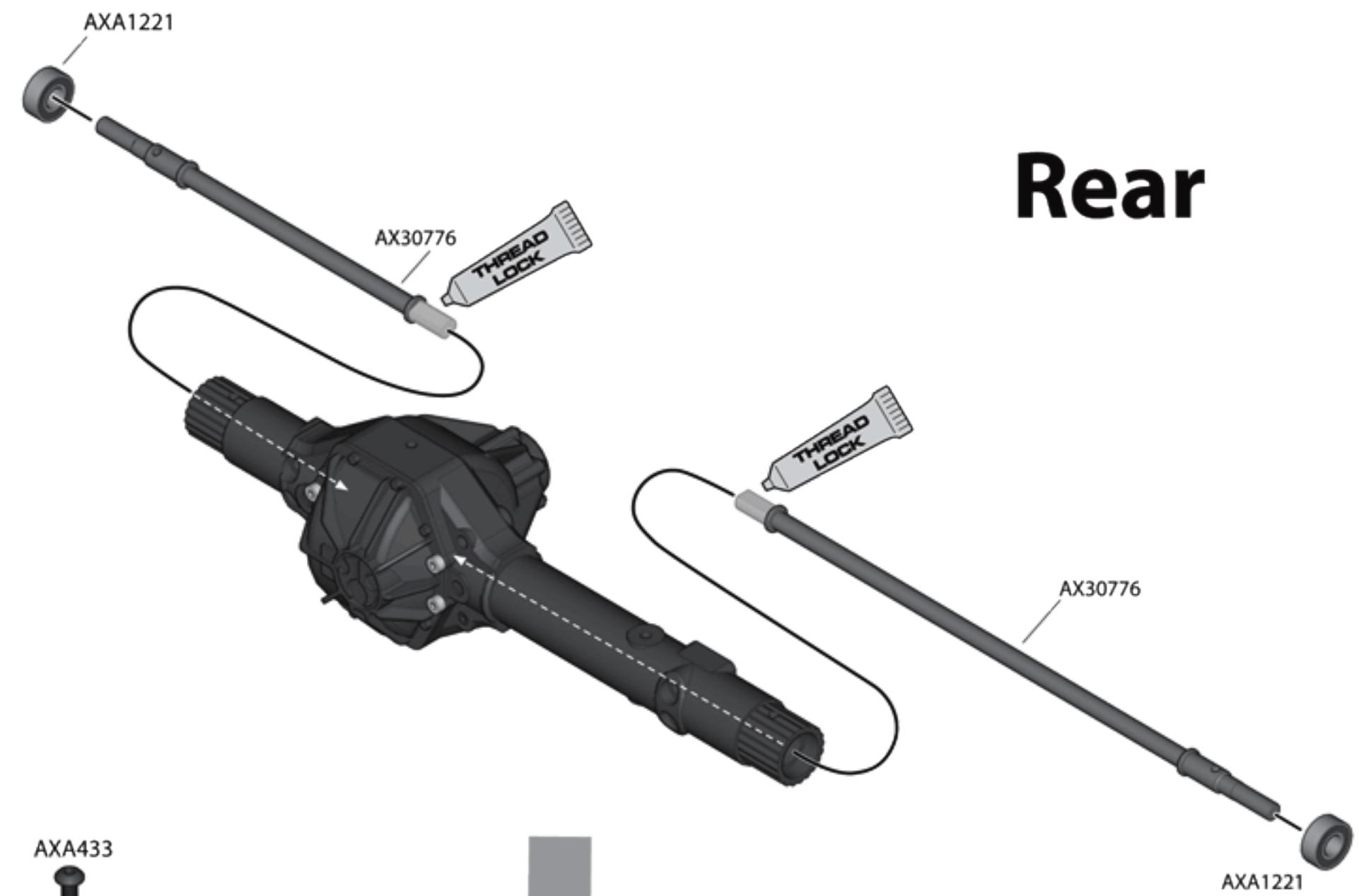


**AXA433**  
M3x6mm  
**x4**



**AXA1221**  
Bearing 5x11x4mm  
**x2**

**4**



**Rear**

AXA433

AX80071①

AXA433

AXA1221



#### Option Parts



**AX30789**  
Rear Straight Axle Aluminum Adapter

AXA433

AX80071②

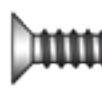
AXA433

**AX30776**  
Straight Axle Shaft 6x104.2mm  
**x1**

**AX30776**  
Straight Axle Shaft 6x160.2mm  
**x1**



**AXA1052** x4  
M3 Thin Nylon Locking Hex Nut



**AXA464** x2  
M3x8mm



**AXA087** x4  
M3x16mm



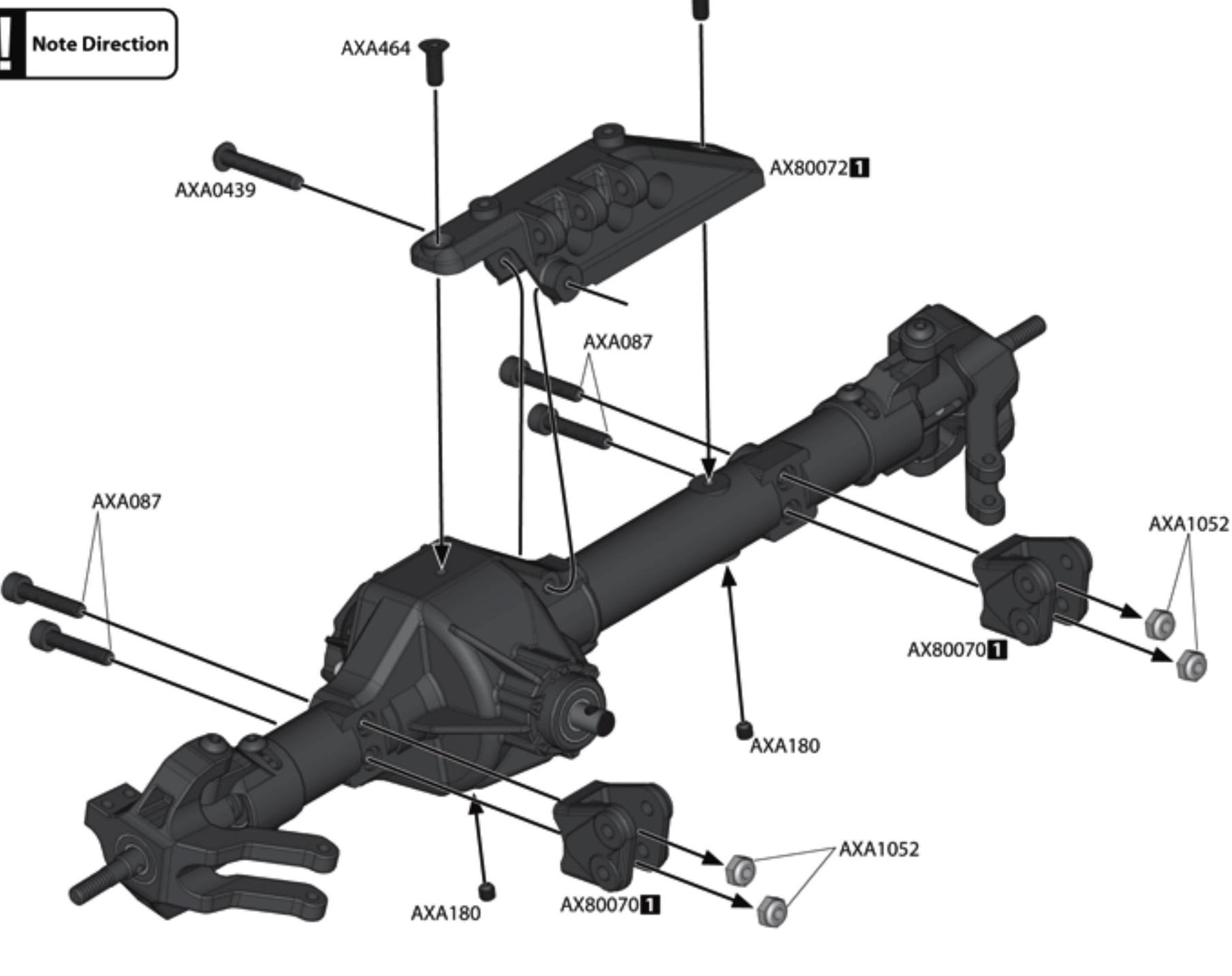
AXA0439 x1



 AXA180 x2  
M3x3mm

## 5 Front

## Note Direction



**AXA1052** x4  
M3 Thin Nylon Locking Hex Nut



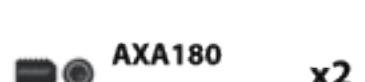
**AXA464** x2  
M3x8mm



**AXA087** x4  
M3x16mm



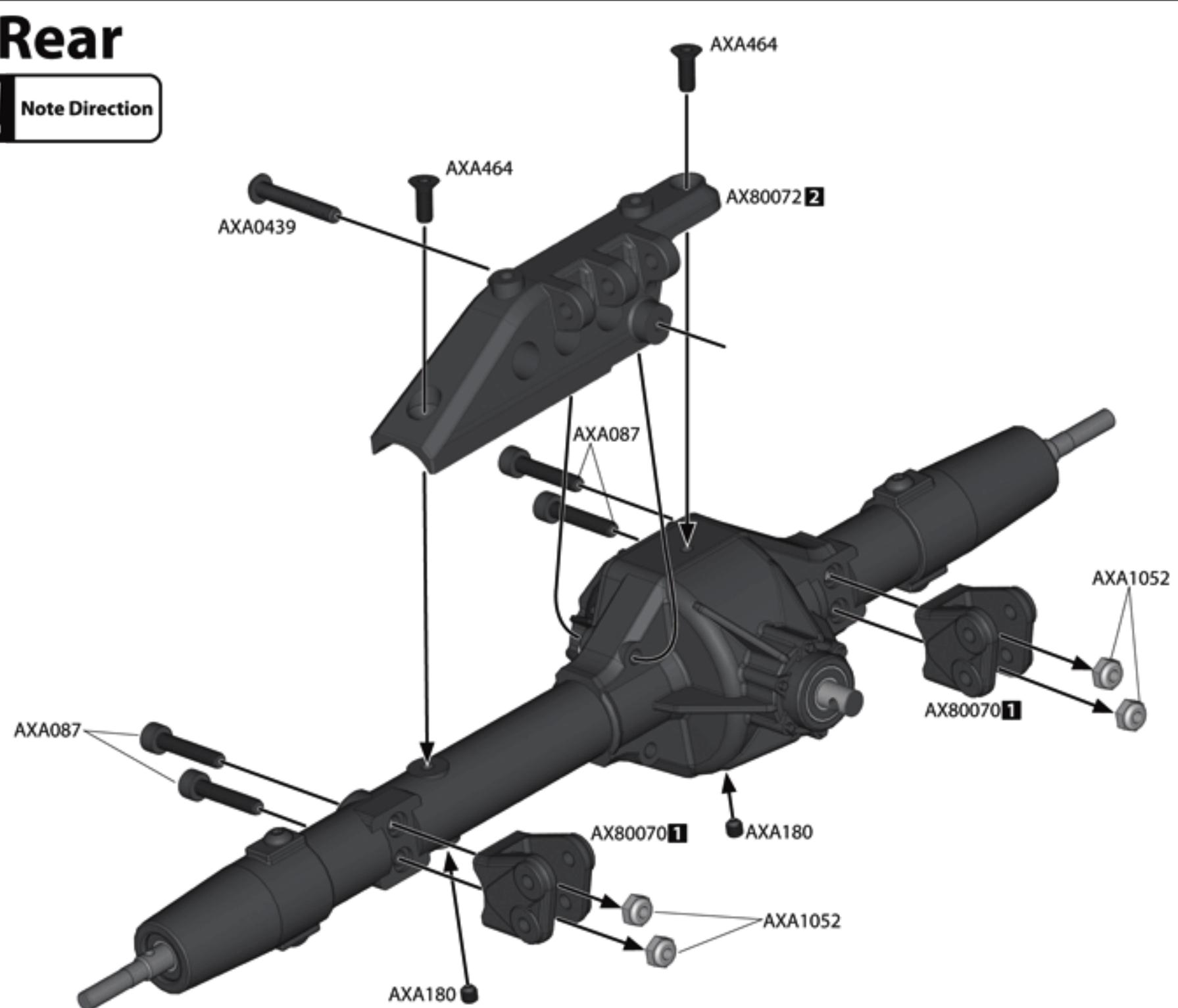
AXA0439 x1



M3x3mm

6 Rear

#### Note Direction



**B**

## Open Bag B



**AXA1041**  
M2.5 Nylon Lock Nut **x4**



**AX30113**  
Rubber Bump Stop 3.6x7x4 **x4**



**AXA1202**  
O-Ring 3.5x2mm **x8**



**AXA1184**  
O-Ring 7.5x1.5mm **x4**



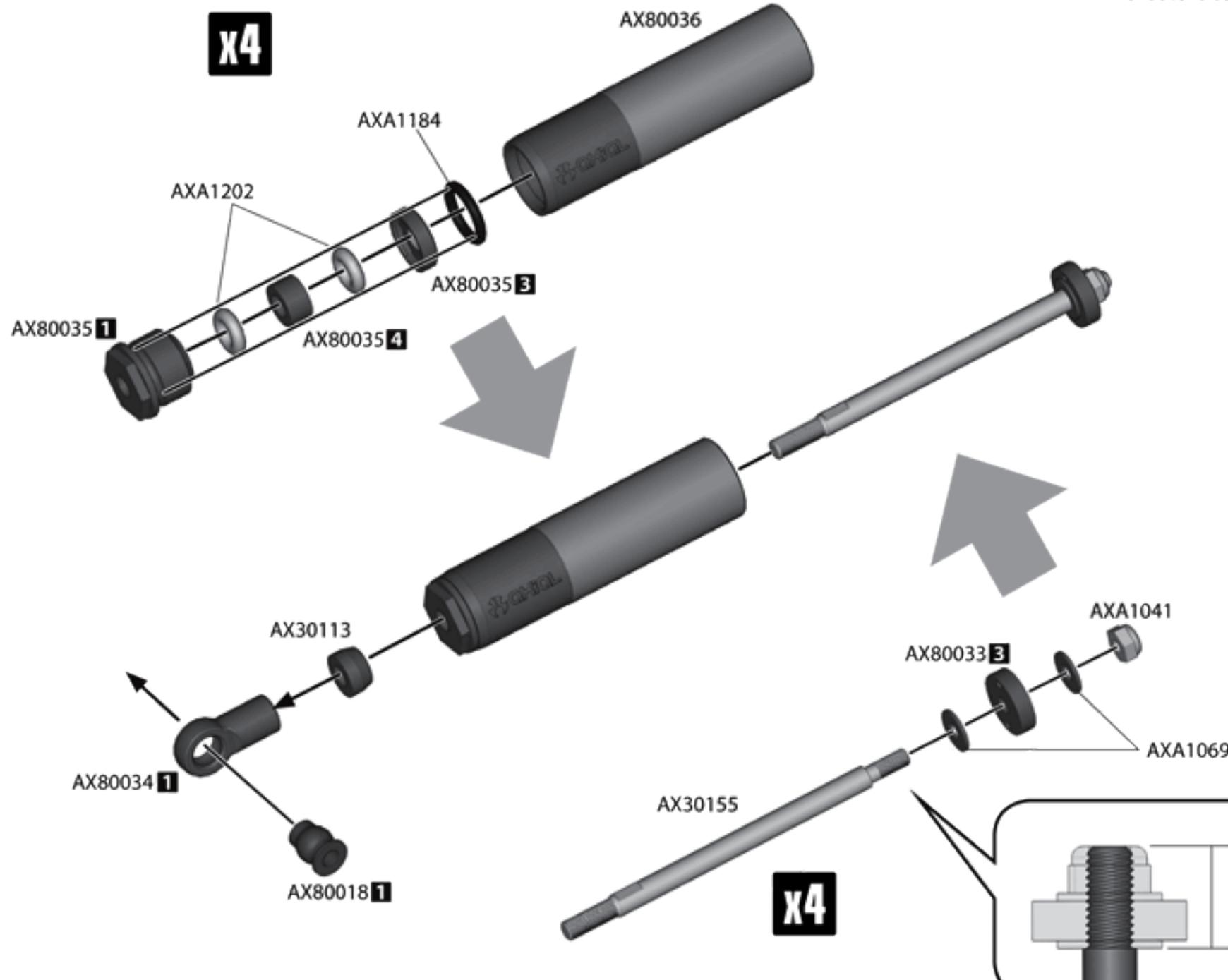
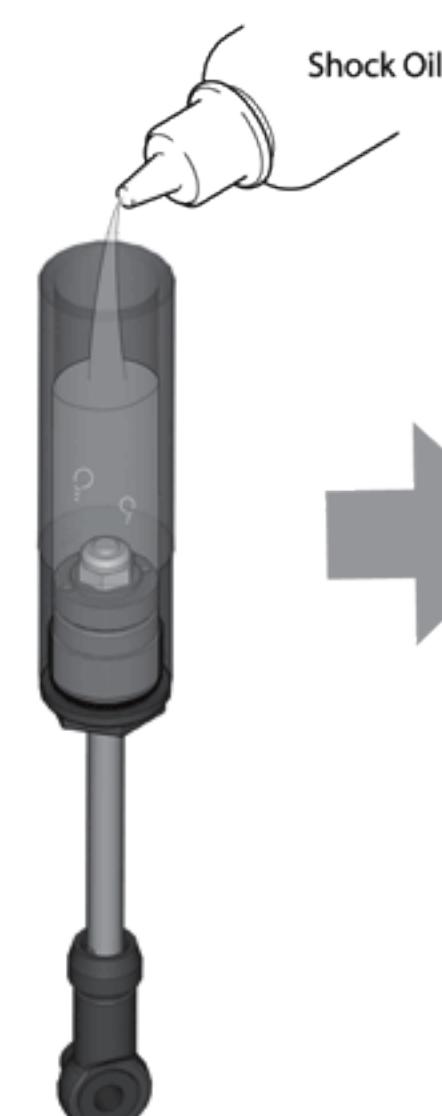
**AX30112**  
Shock Diaphragm 13x4.5mm **x4**

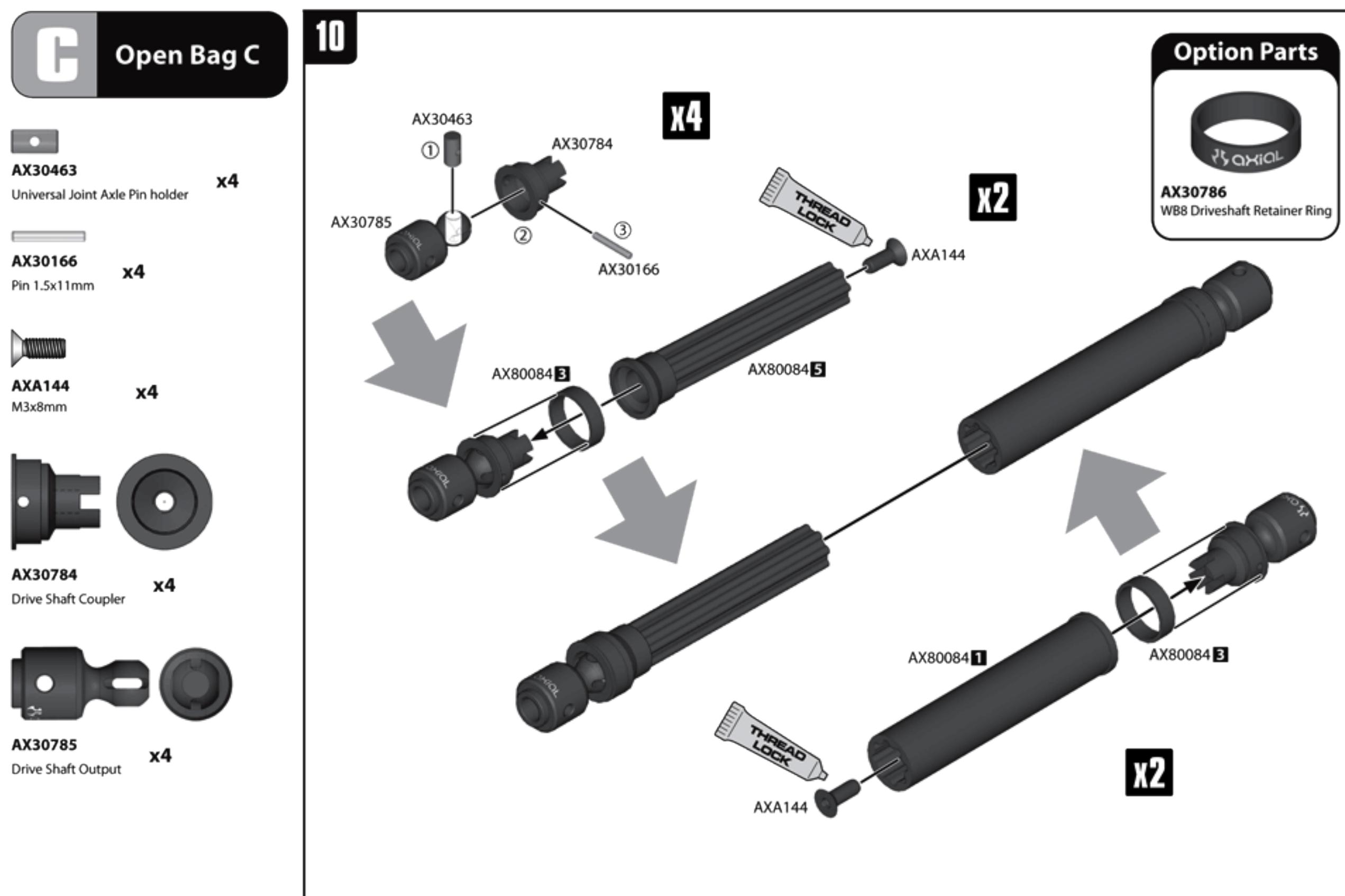
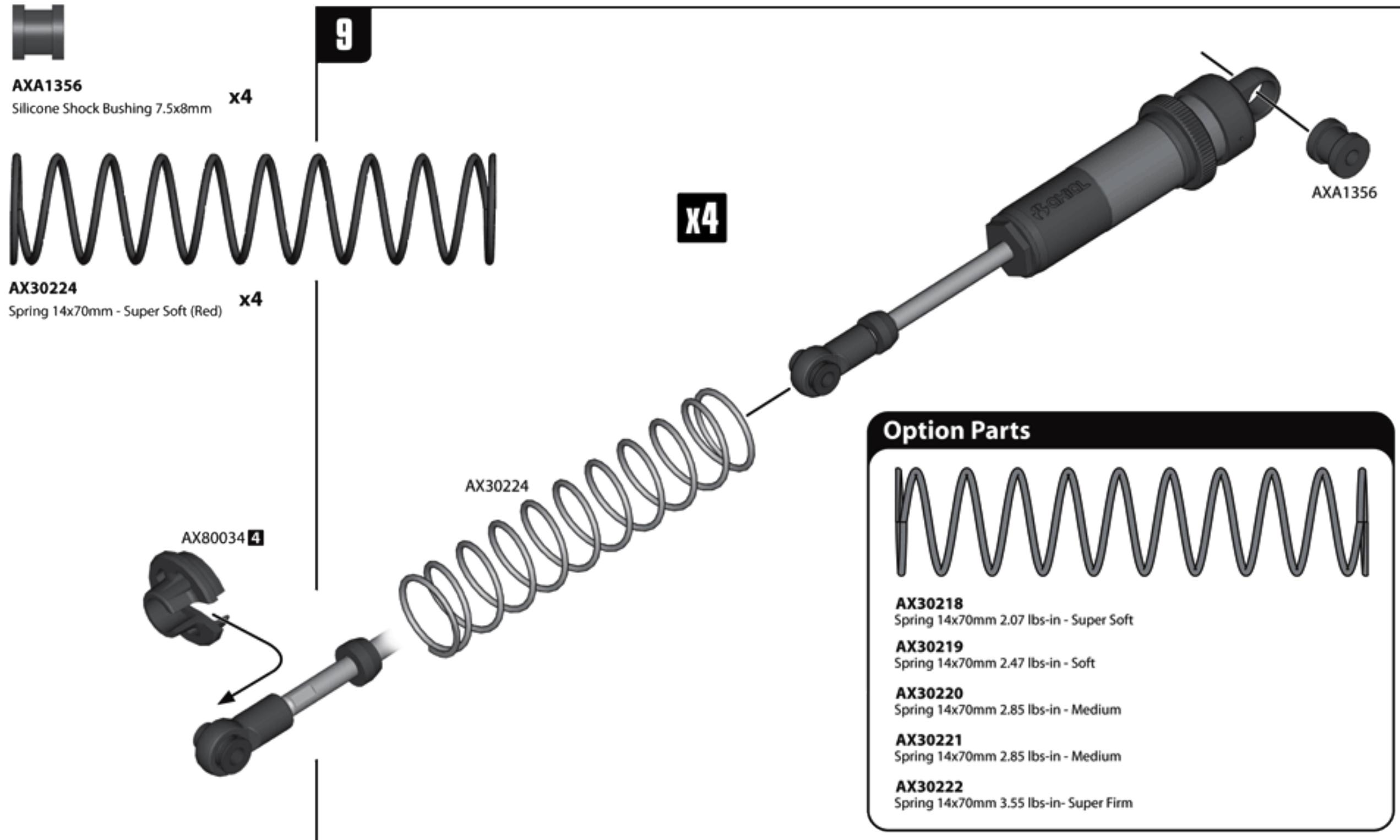


**AX80018**  
Hardware Parts Tree **x4**



**AXA1069**  
WASHER 2.7x6.7x0.5 **x8**

**7****x4****8****x4****AX80035 2****AX30112****AX80035 5**

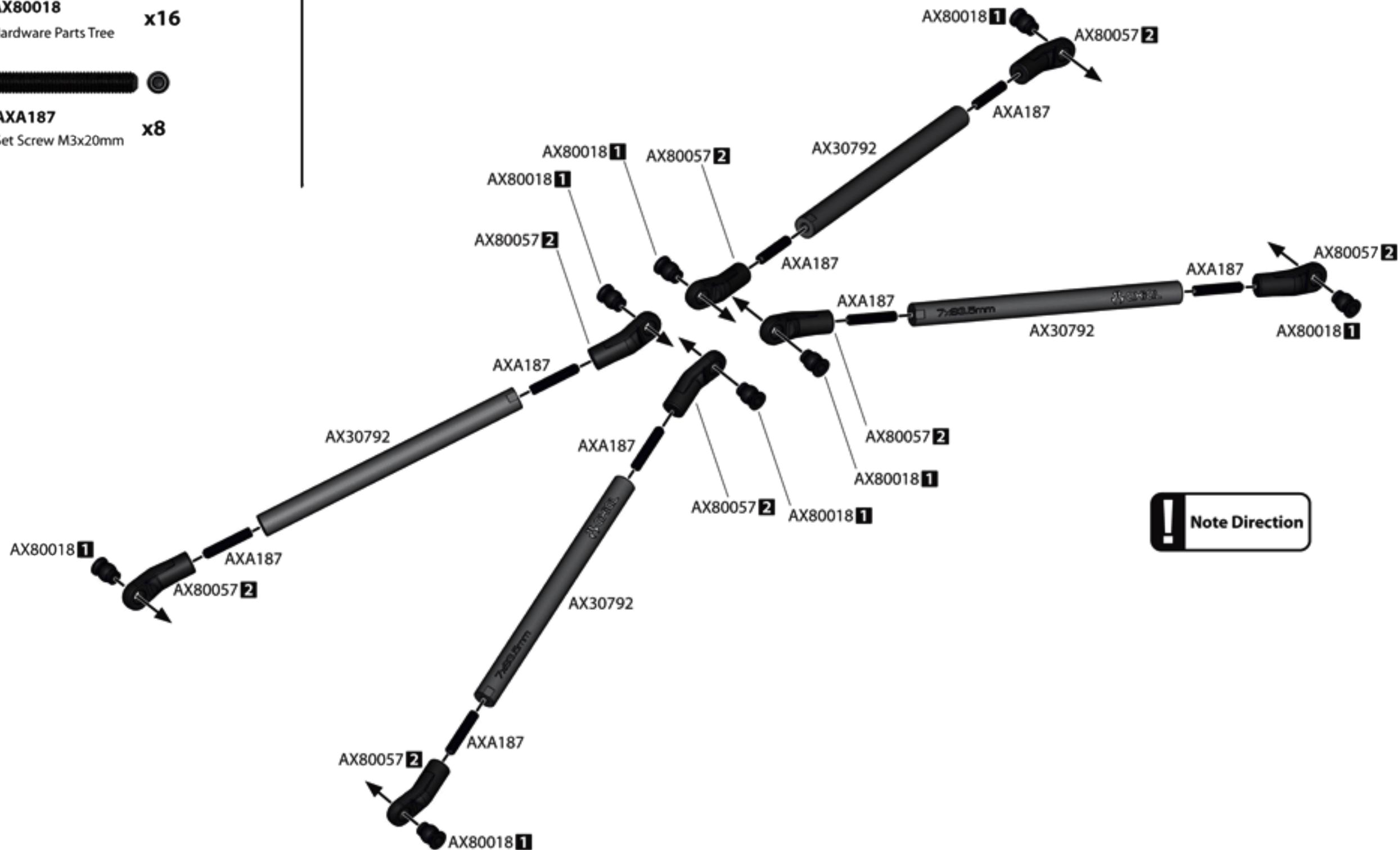




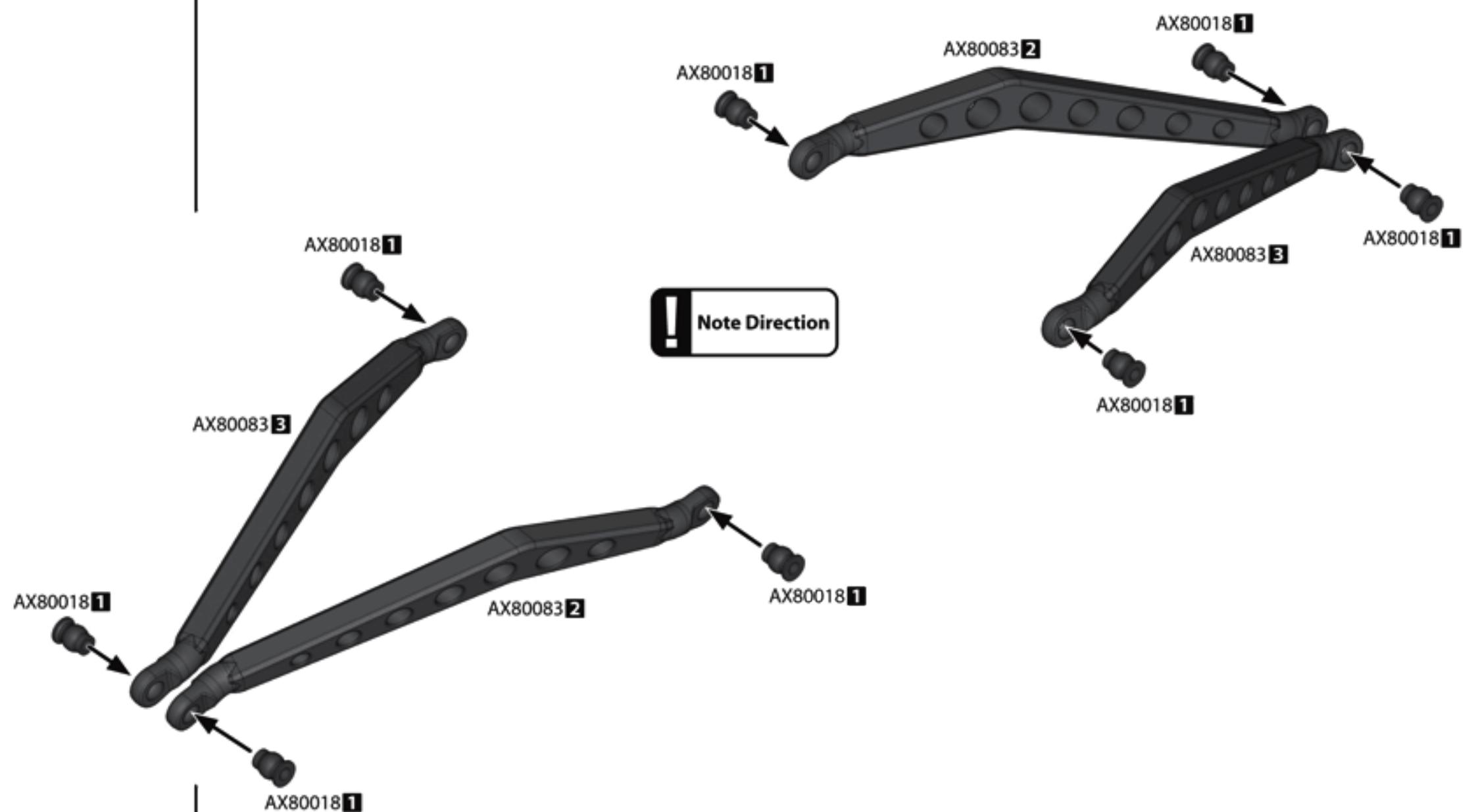
AX80018  
Hardware Parts Tree  
**x16**

AXA187  
Set Screw M3x20mm  
**x8**

**11**



**12**





**AXA175**  
Screw Shaft M3x2.5x11mm **x1**

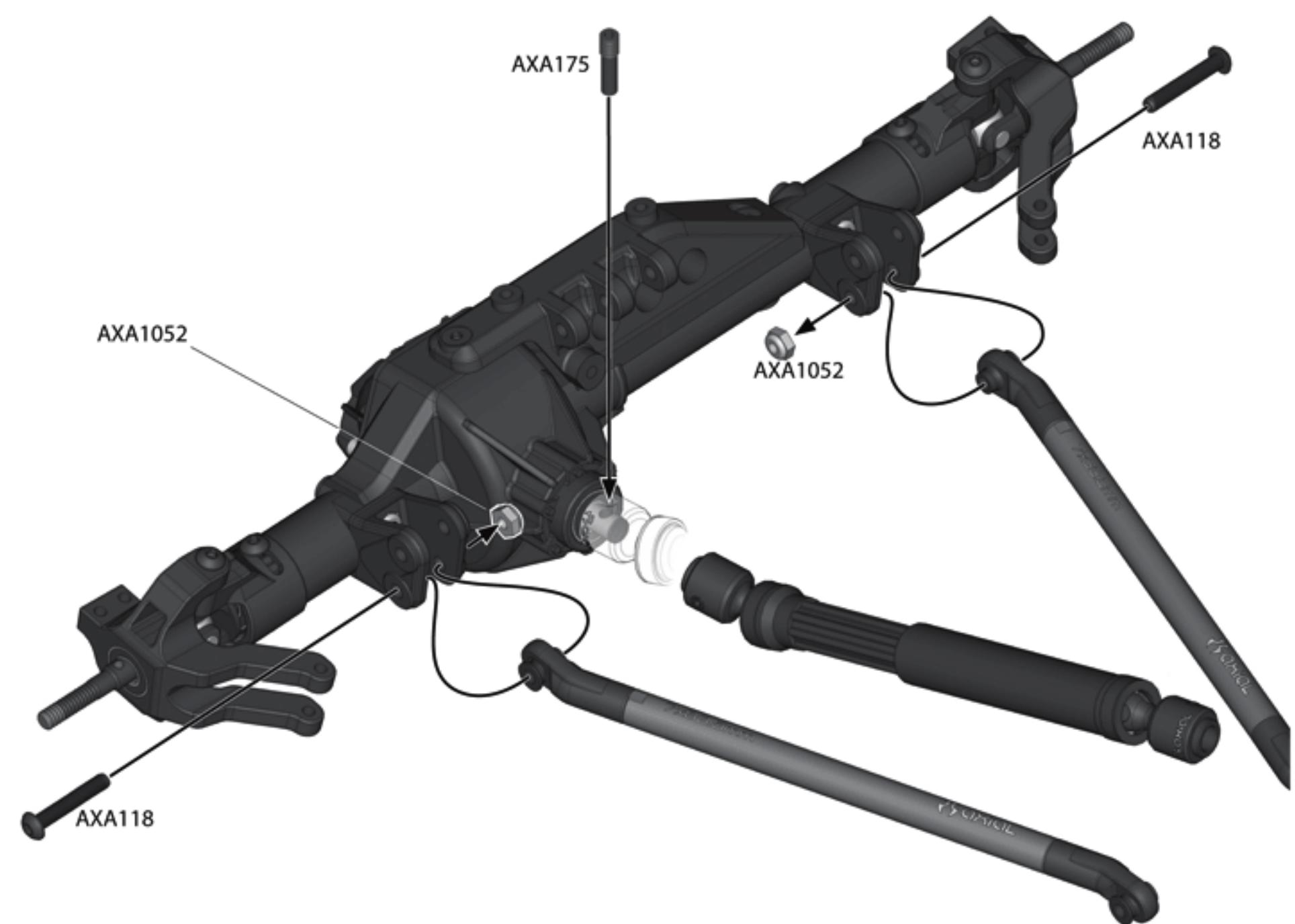


**AXA1052**  
M3 Thin Nylon Locking Hex Nut (BLACK) **x2**



**AXA118**  
M3x18mm **x2**

## 13 Front



**AXA1052**  
M3 Thin Nylon Locking Hex Nut (BLACK) **x2**



**AXA1053**  
M3 Nylon Locking Hex Nut (BLACK) **x1**

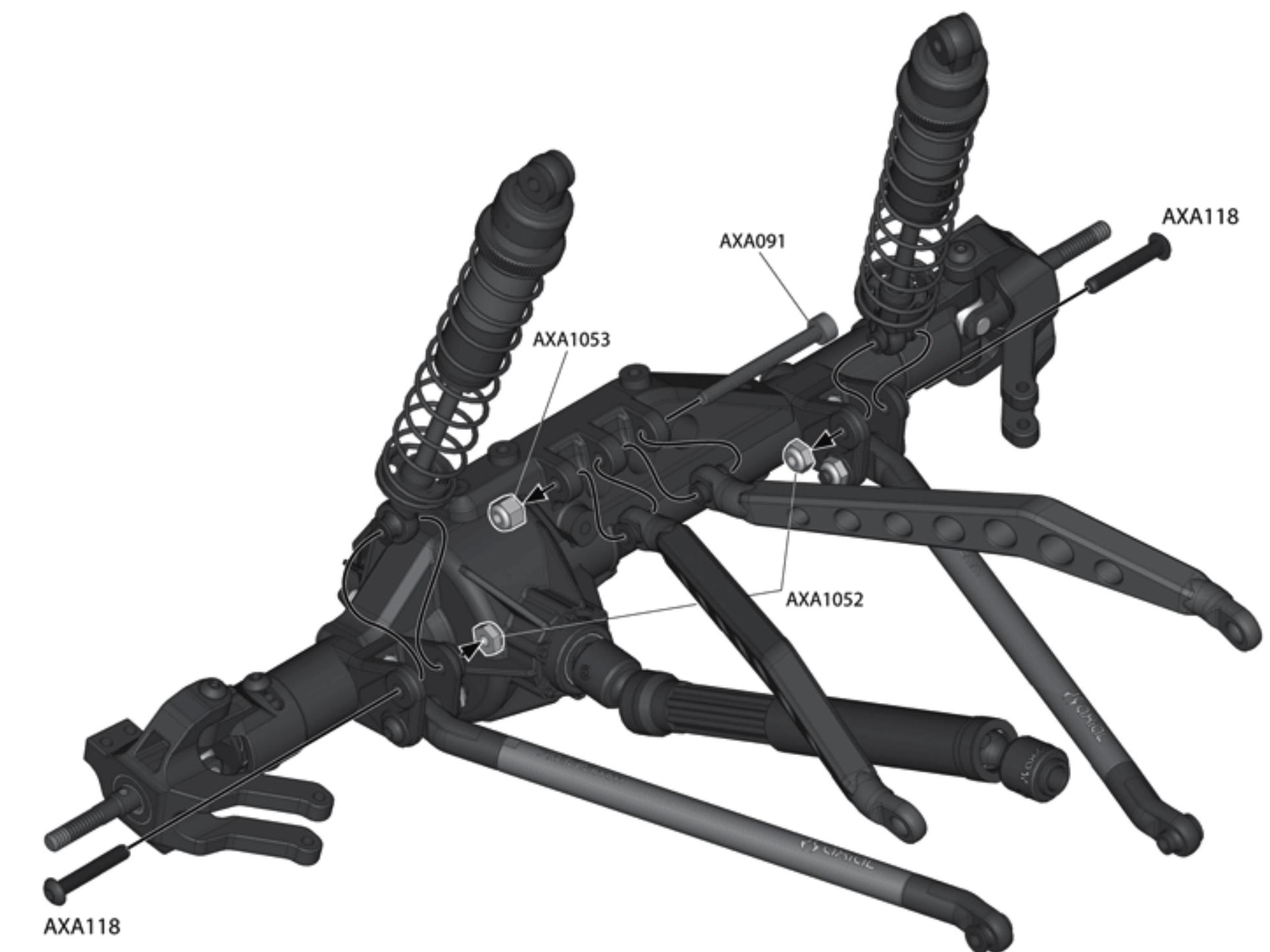


**AXA118**  
M3x18mm **x2**



**AXA091**  
M3x30mm **x1**

## 14 Front





**AXA434**  
M3x8mm  
**x2**



**AXA435**  
M3x10mm  
**x4**

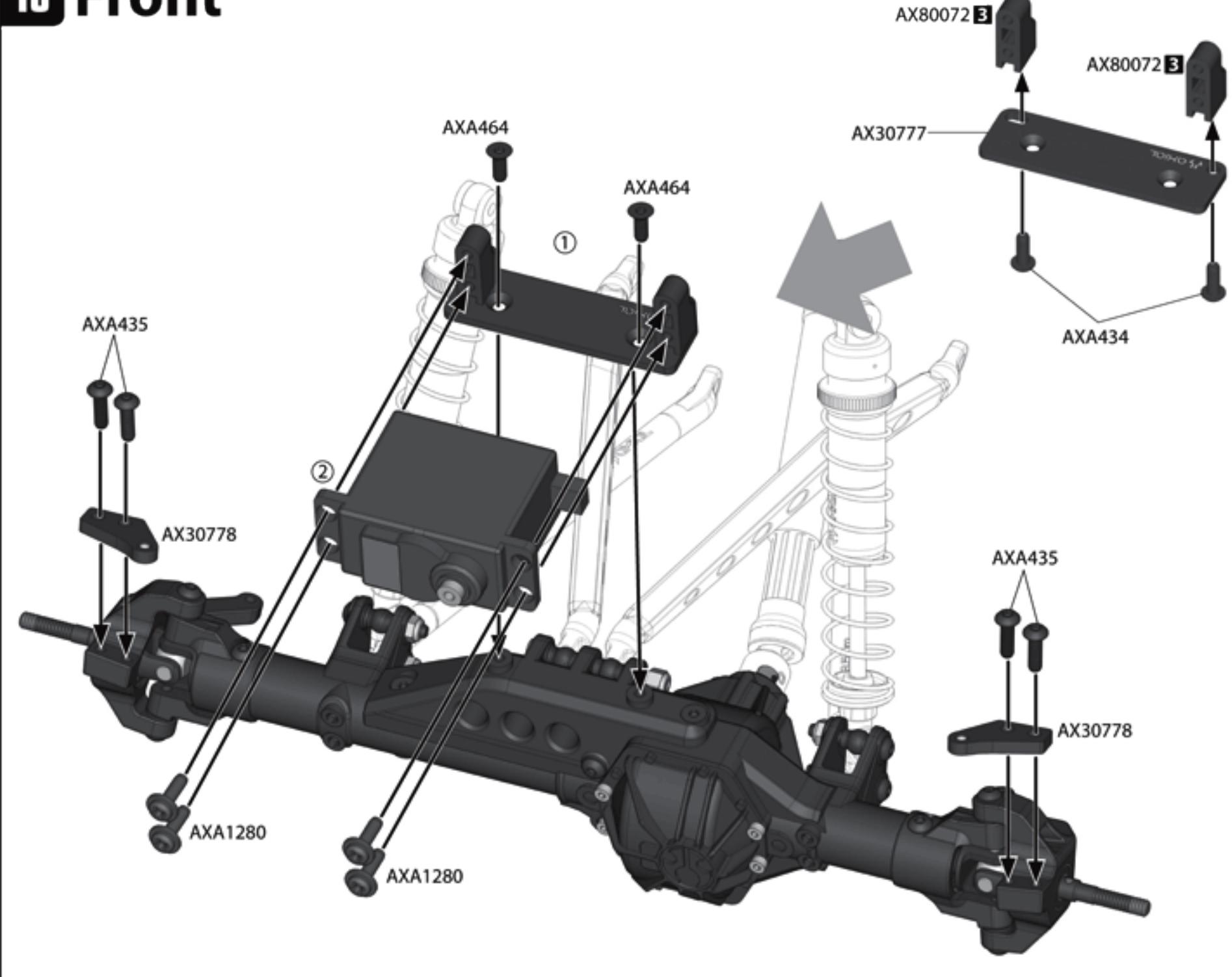


**AXA464**  
M3x8mm  
**x2**



**AXA1280**  
M3x10mm Servo Flange Screw  
**x4**

## 15 Front



**AXA1070**  
Washer 3x6x0.5 mm  
**x1**



**AXA1052**  
M3 Thin Nylon Locking Hex Nut (BLACK)  
**x2**



**AXA1053**  
M3 Nylon Locking Hex Nut (BLACK)  
**x1**



**AX80018**  
Hardware Parts Tree  
**x4**



**AXA0113**  
M3x6mm  
**x1**

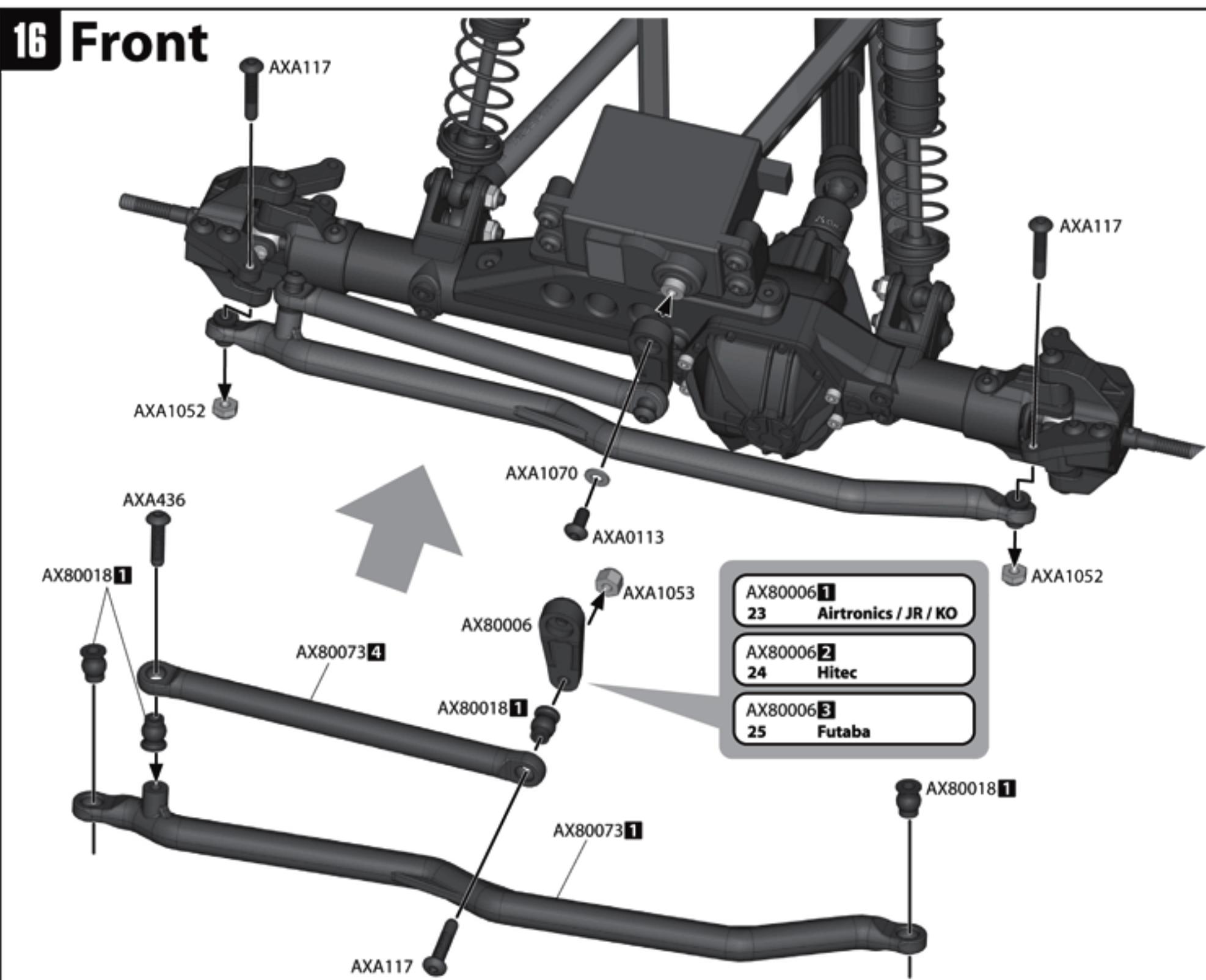


**AXA436**  
M3x12mm  
**x1**



**AXA117**  
M3x15mm  
**x3**

## 16 Front





AXA175  
Screw Shaft M3x2.5x11mm x1

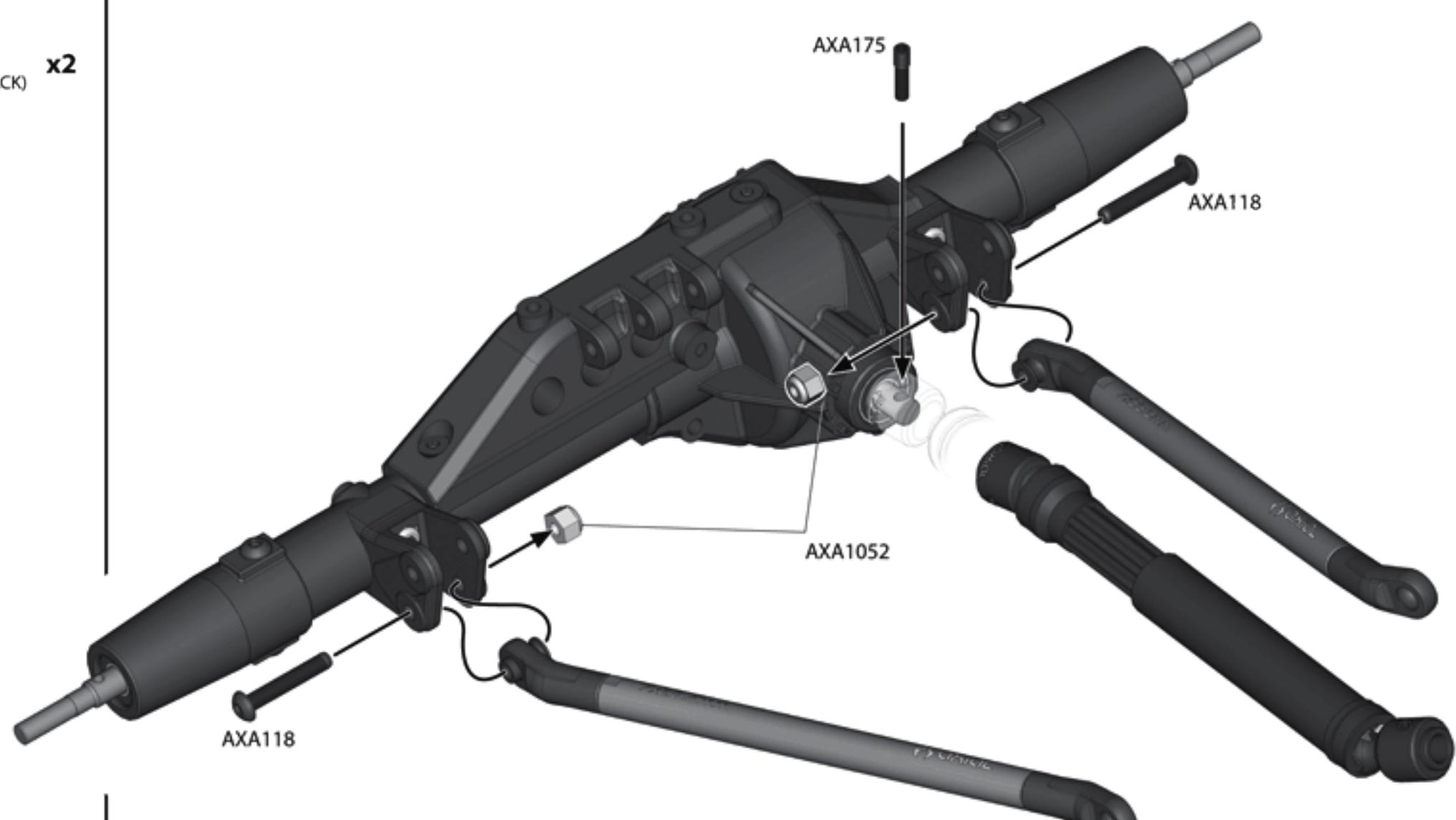


AXA1052  
M3 Thin Nylon Locking Hex Nut (BLACK) x2



AXA118  
M3x18mm x2

## 17 Rear



AXA1052  
M3 Thin Nylon Locking Hex Nut (BLACK) x2



AXA1053  
M3 Nylon Locking Hex Nut (BLACK) x1

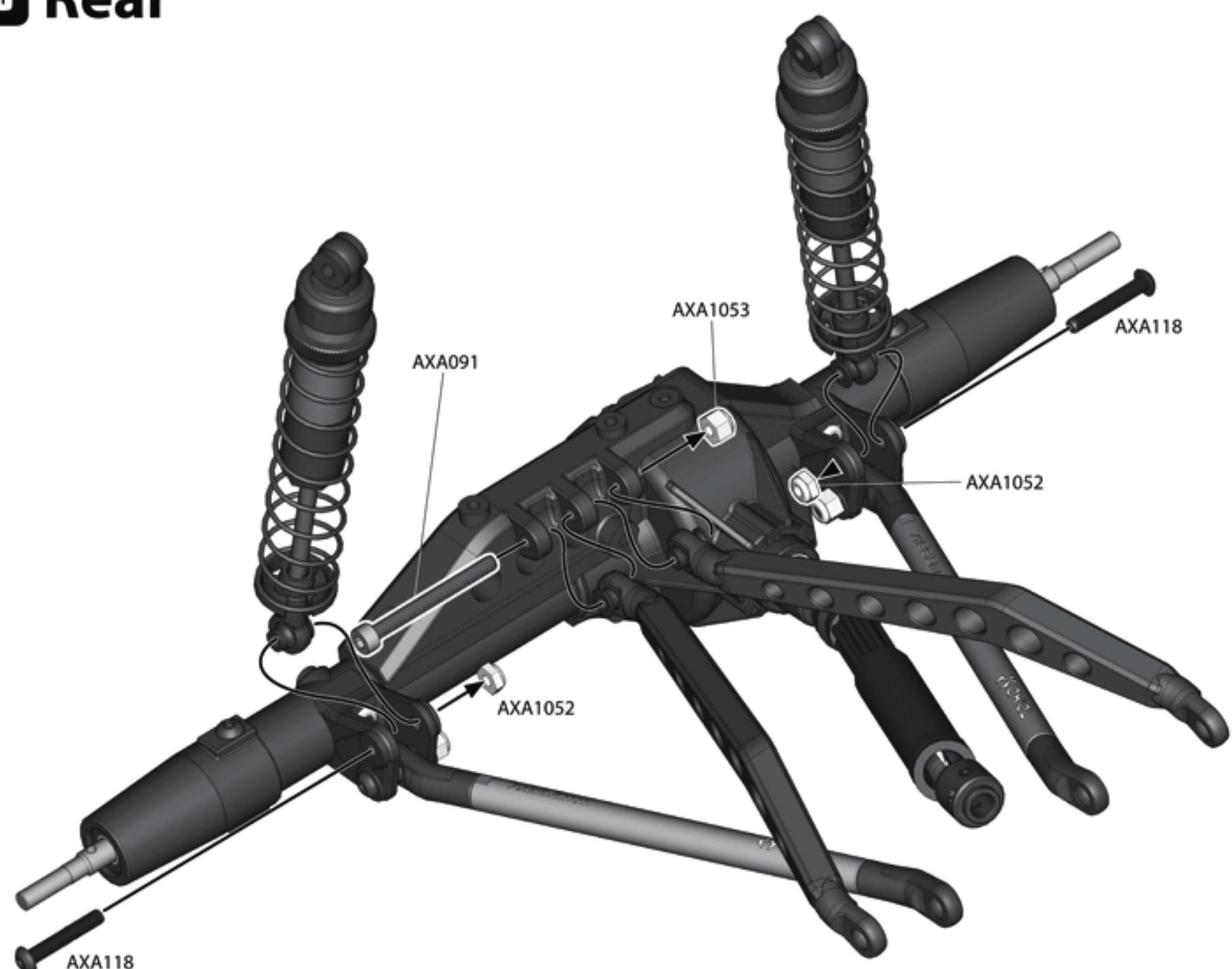


AXA118  
M3x18mm x2



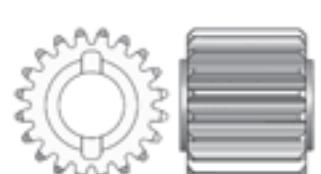
AXA091  
M3x30mm x1

## 18 Rear



**D****Open Bag D**

AX30162 Pin 1.5x8mm x1



AX30394 20T Drive Gear x1



AX30198 Slipper Drive gear Shaft 5x53.5 x1



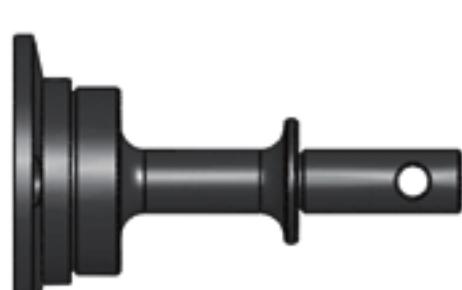
AXA1218 Bearing 5x10x4mm x4



AXA1225 Bearing 8x16x5mm x1



AXA1243 Bearing 15x21x4mm x1



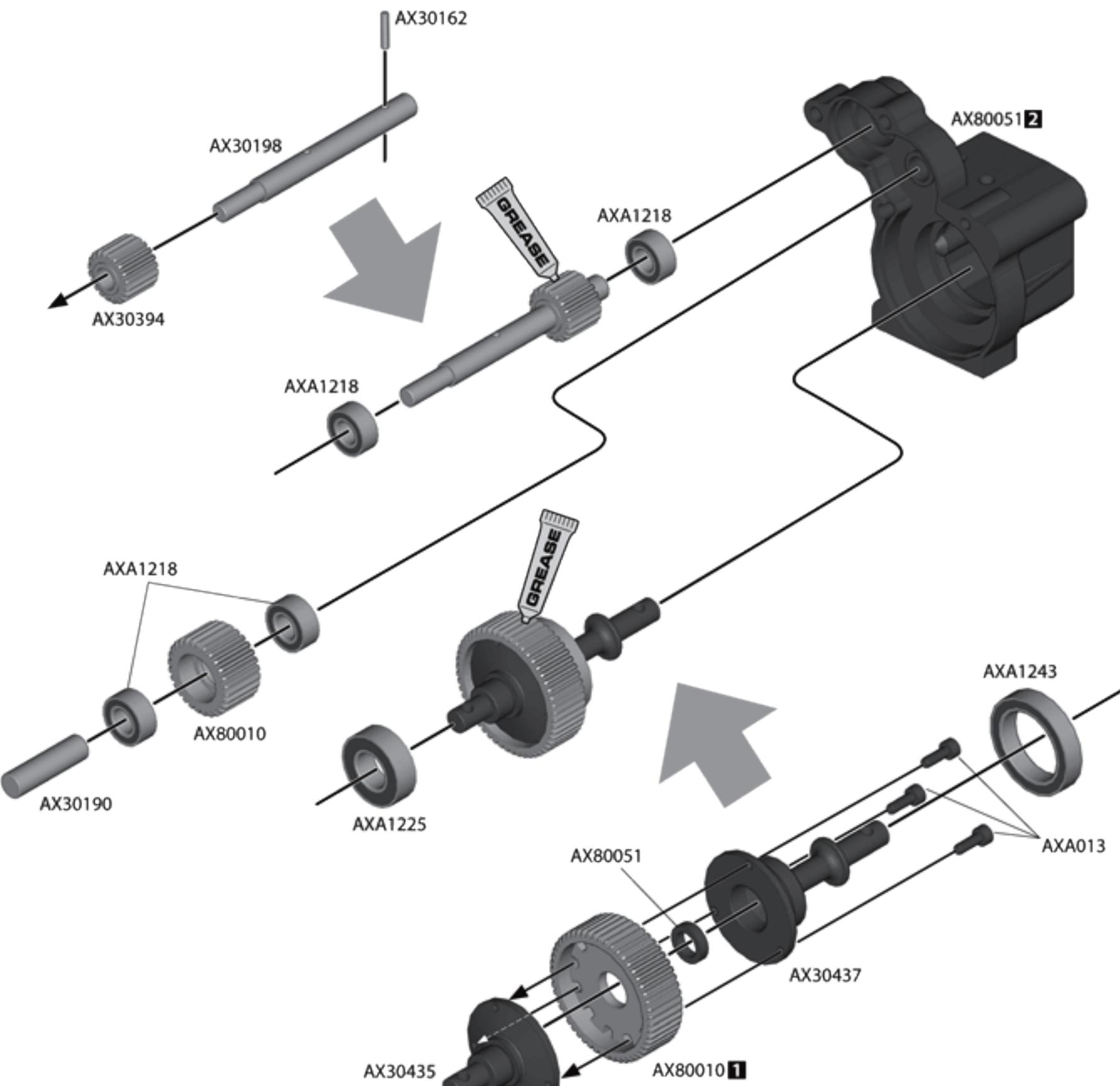
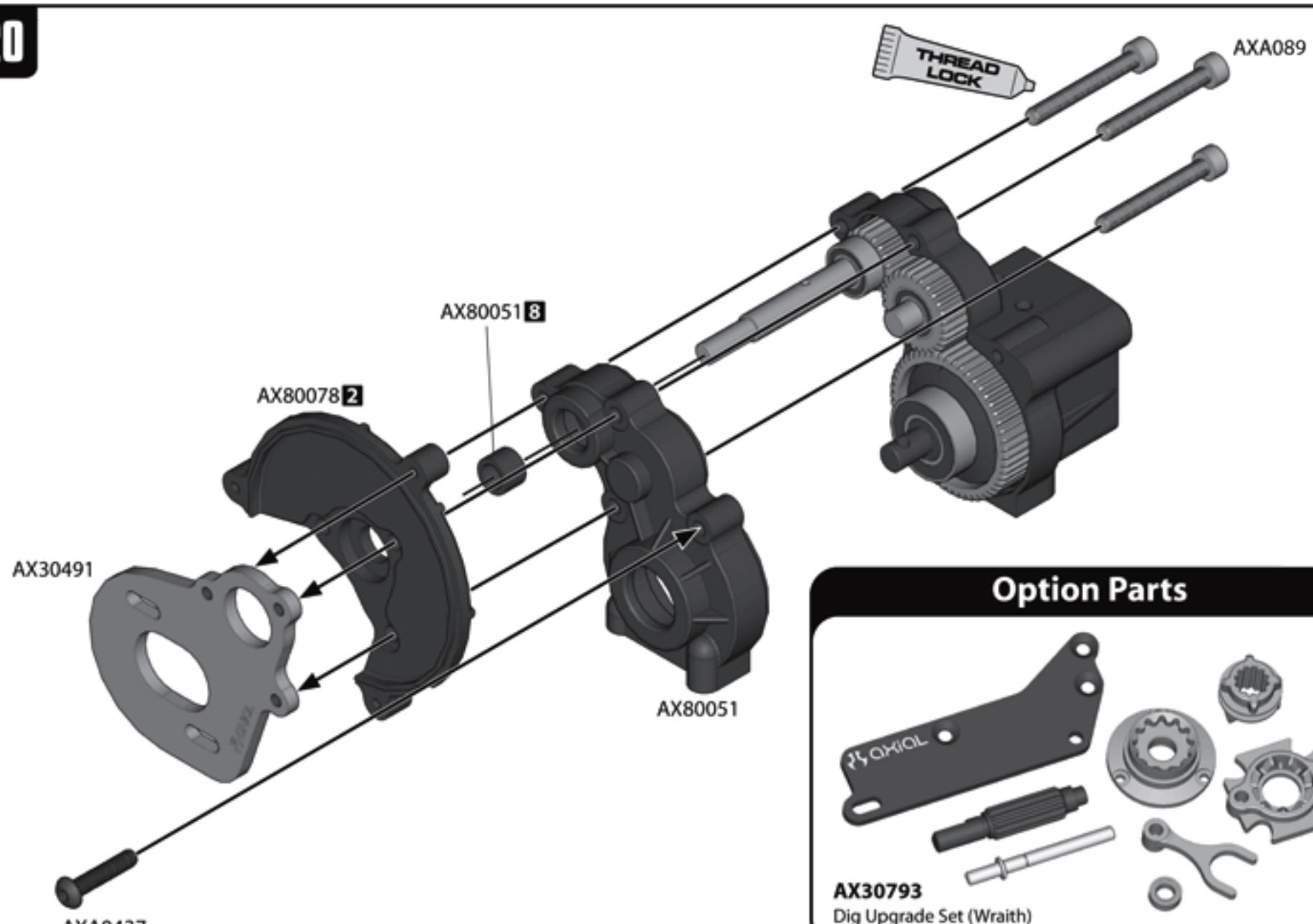
AX30437 Dig Lockout Shaft x1

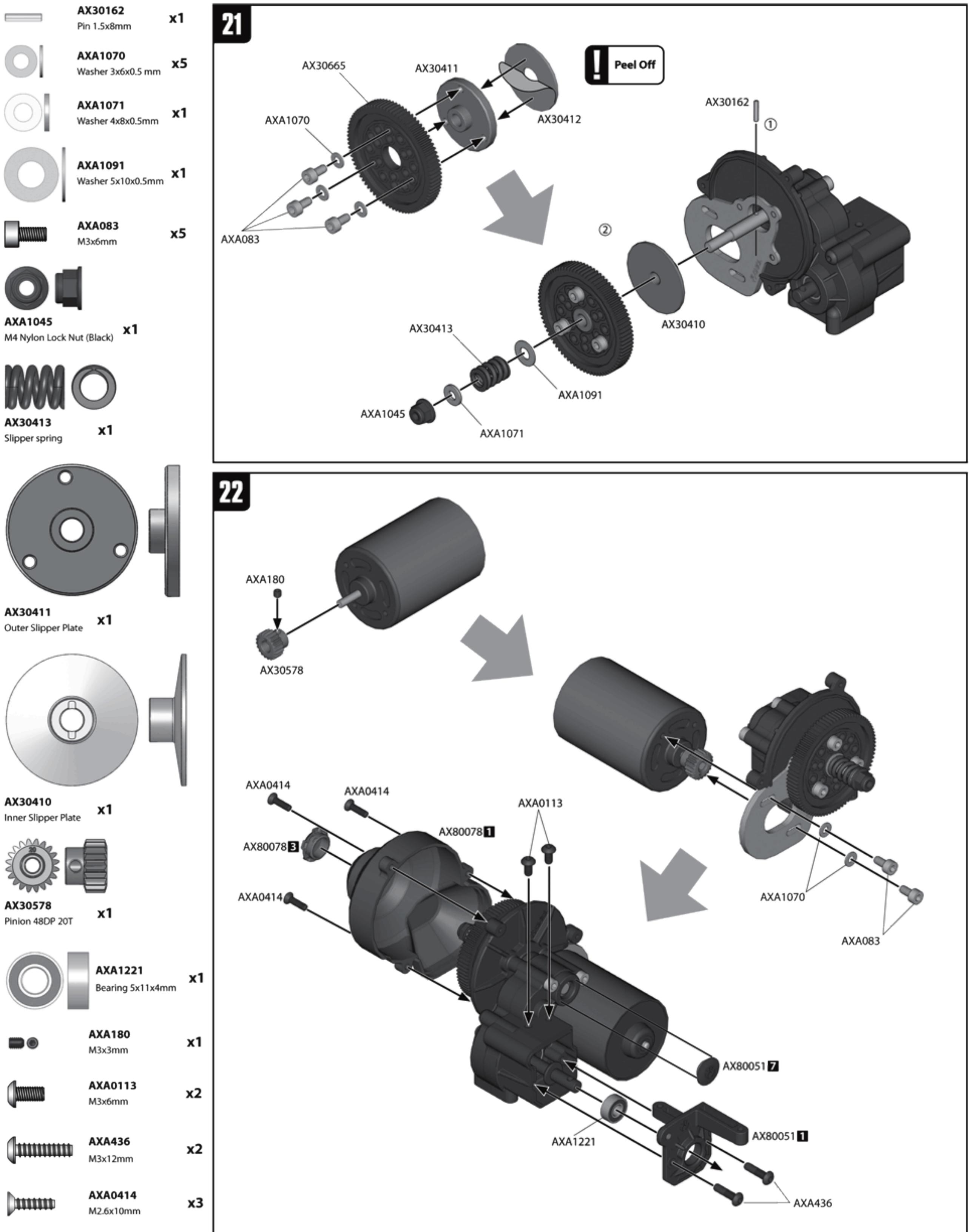


AXA013 M2x6mm x3

AXA0437 M3x15mm x1

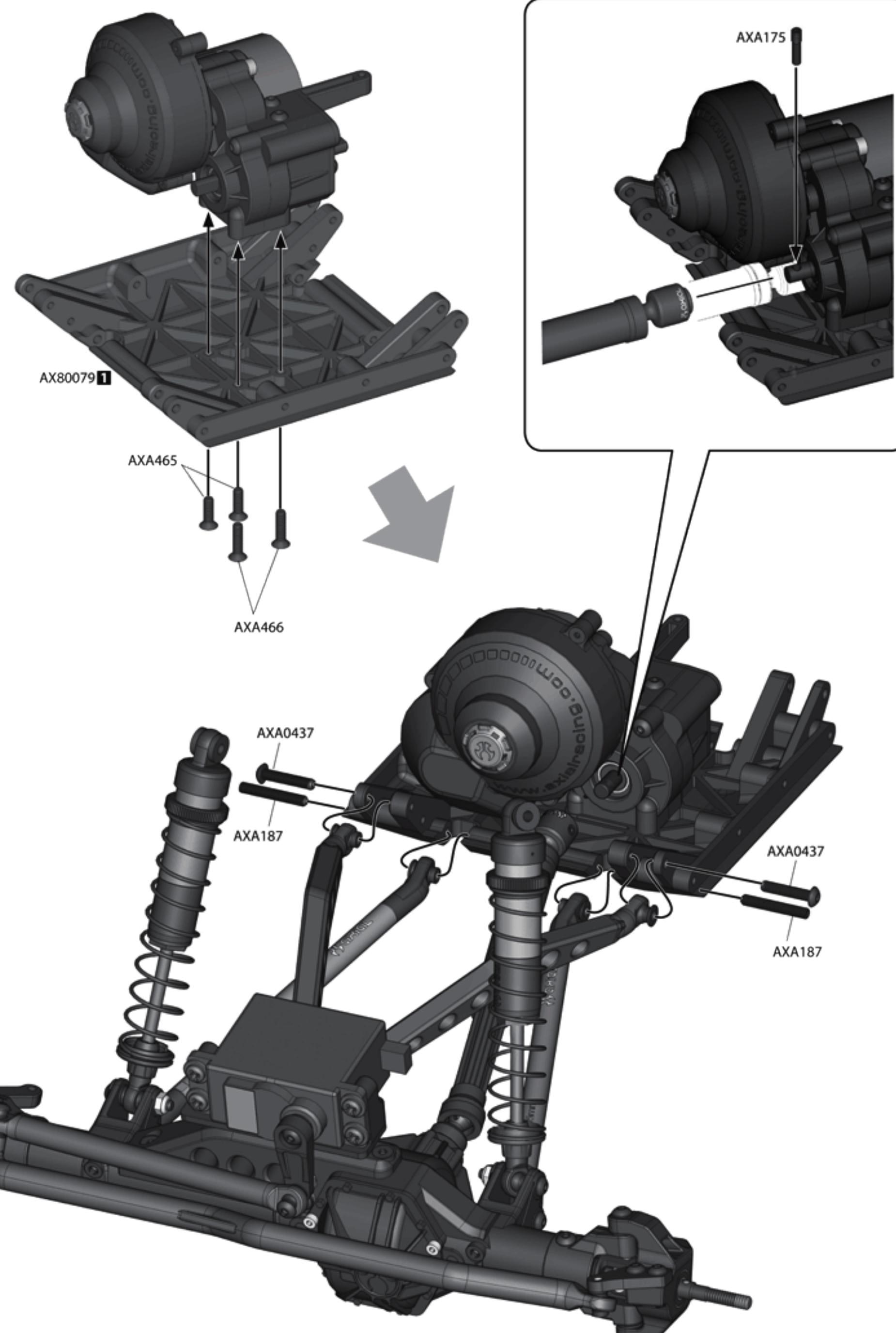
AXA089 M3x25mm x3

**19****20****Option Parts**



## 23 Front

	<b>AXA175</b>	Screw Shaft M3x2.5x11mm	x1
	<b>AXA465</b>	M3x10mm	x2
	<b>AXA466</b>	M3x12mm	x2
	<b>AXA0437</b>	M3x15mm	x2
	<b>AXA187</b>	M3x20mm Set Screw (Black Oxide)	x2





AXA175  
Screw Shaft M3x2.5x11mm x1

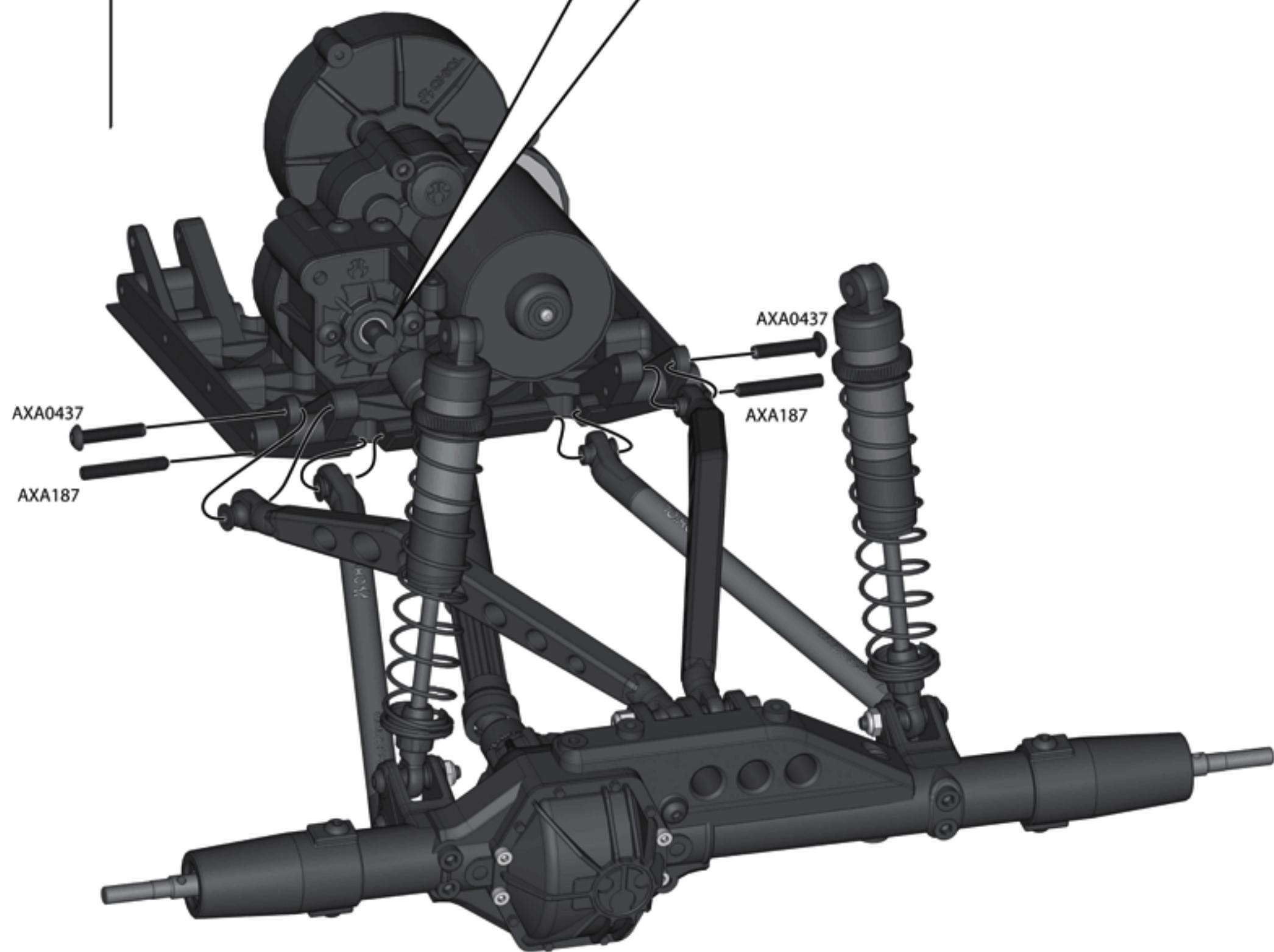


AXA0437  
M3x15mm x2



AXA187  
M3x20mm Set Screw (Black Oxide) x2

## 24 Rear



**E**

## Open Bag E

**25**

AXA013

x6



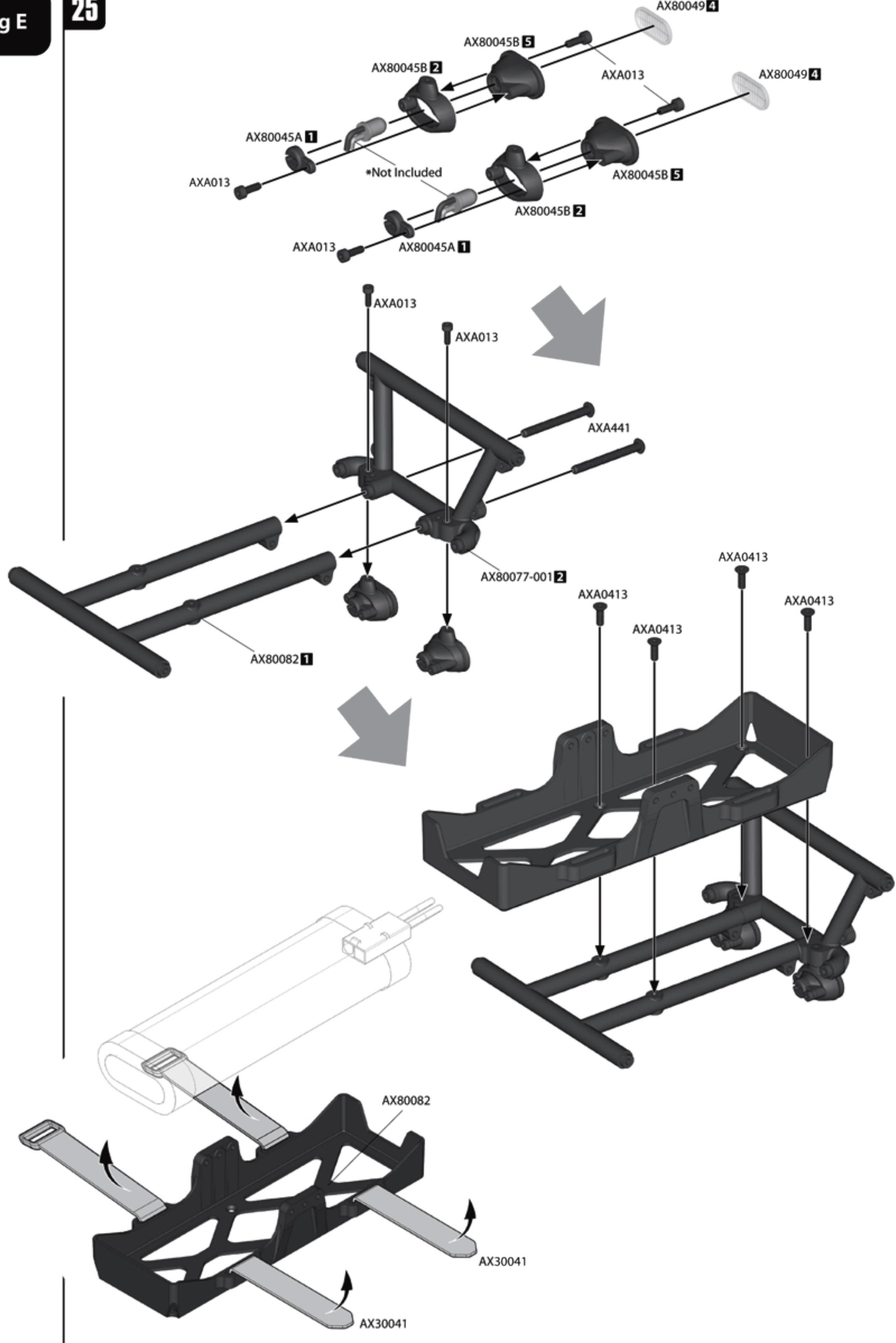
AXA0413

x4



AXA441

M3x30mm





AXA0437

M3x15mm



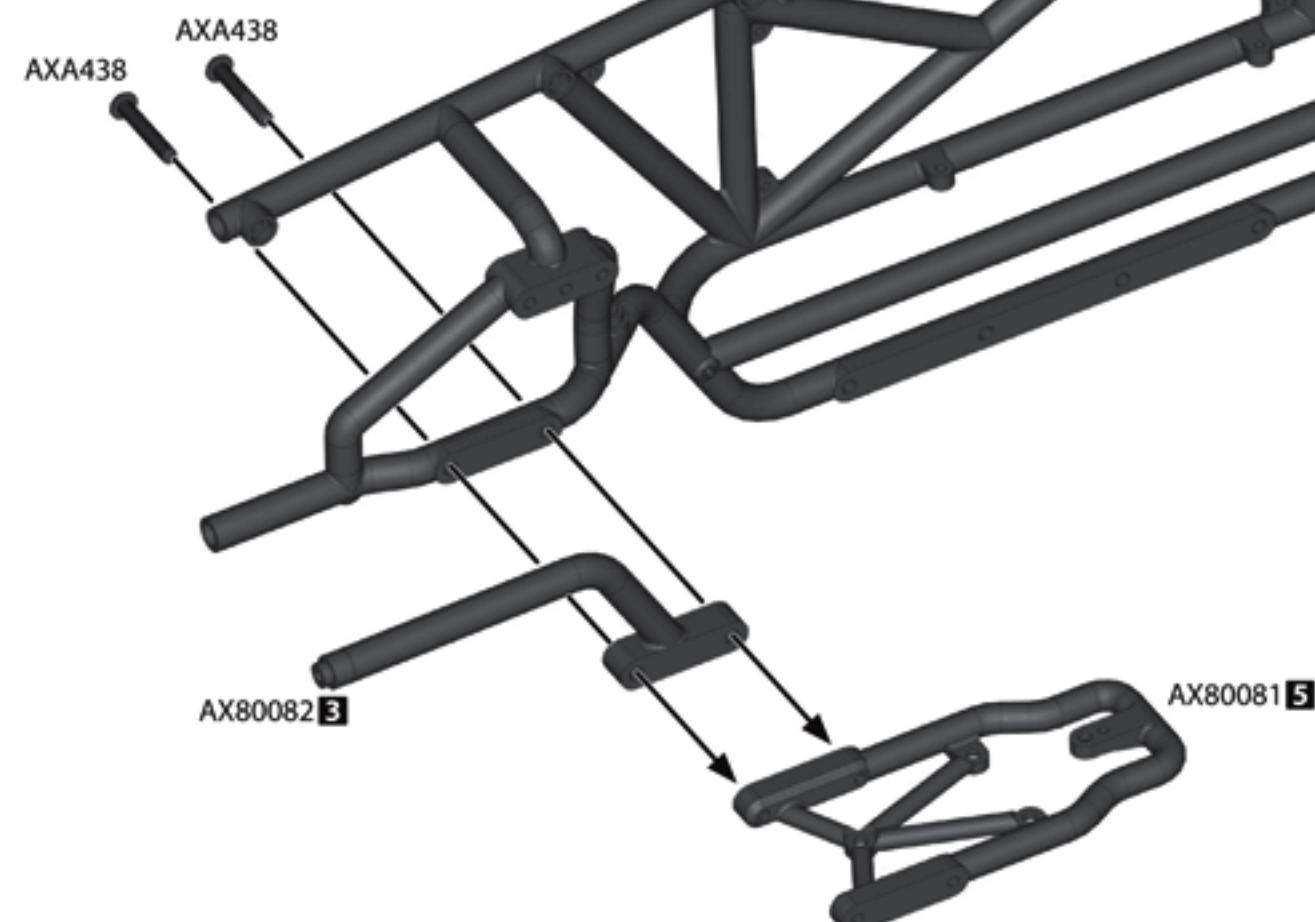
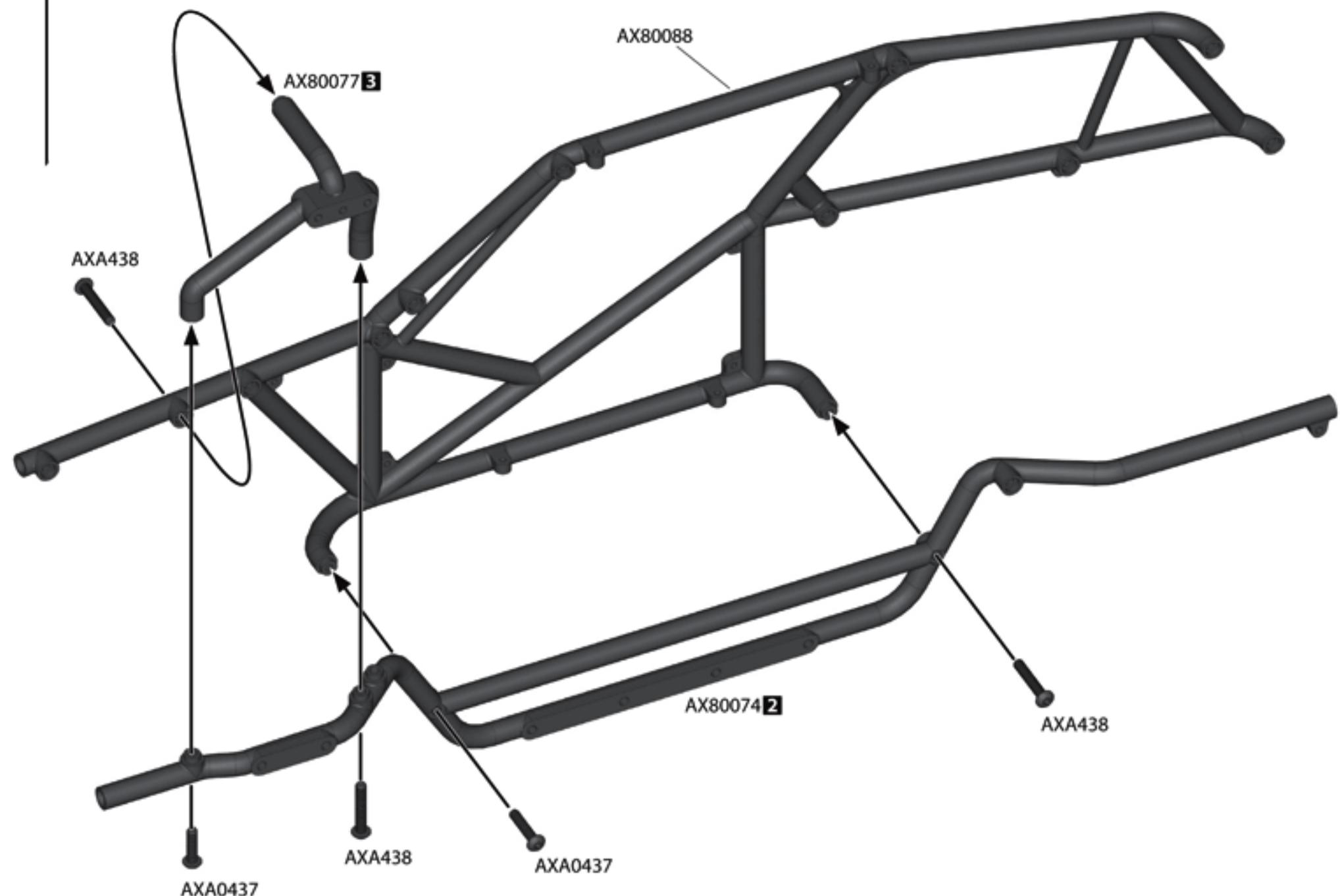
AXA438

M3x18mm

## 26 Left

x2

x5





AXA0437  
M3x15mm

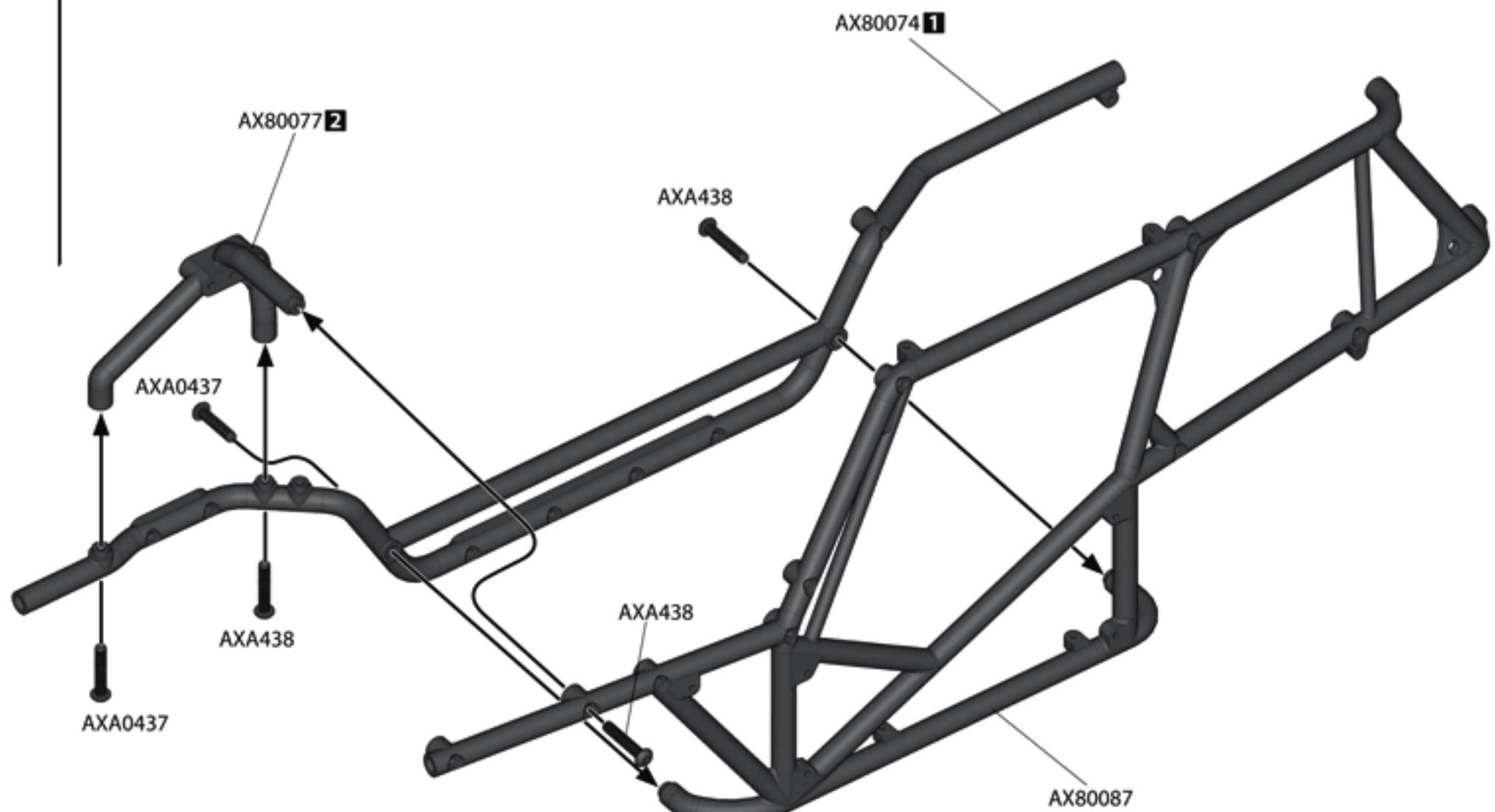


AXA438  
M3x18mm

## 27 Right

x2

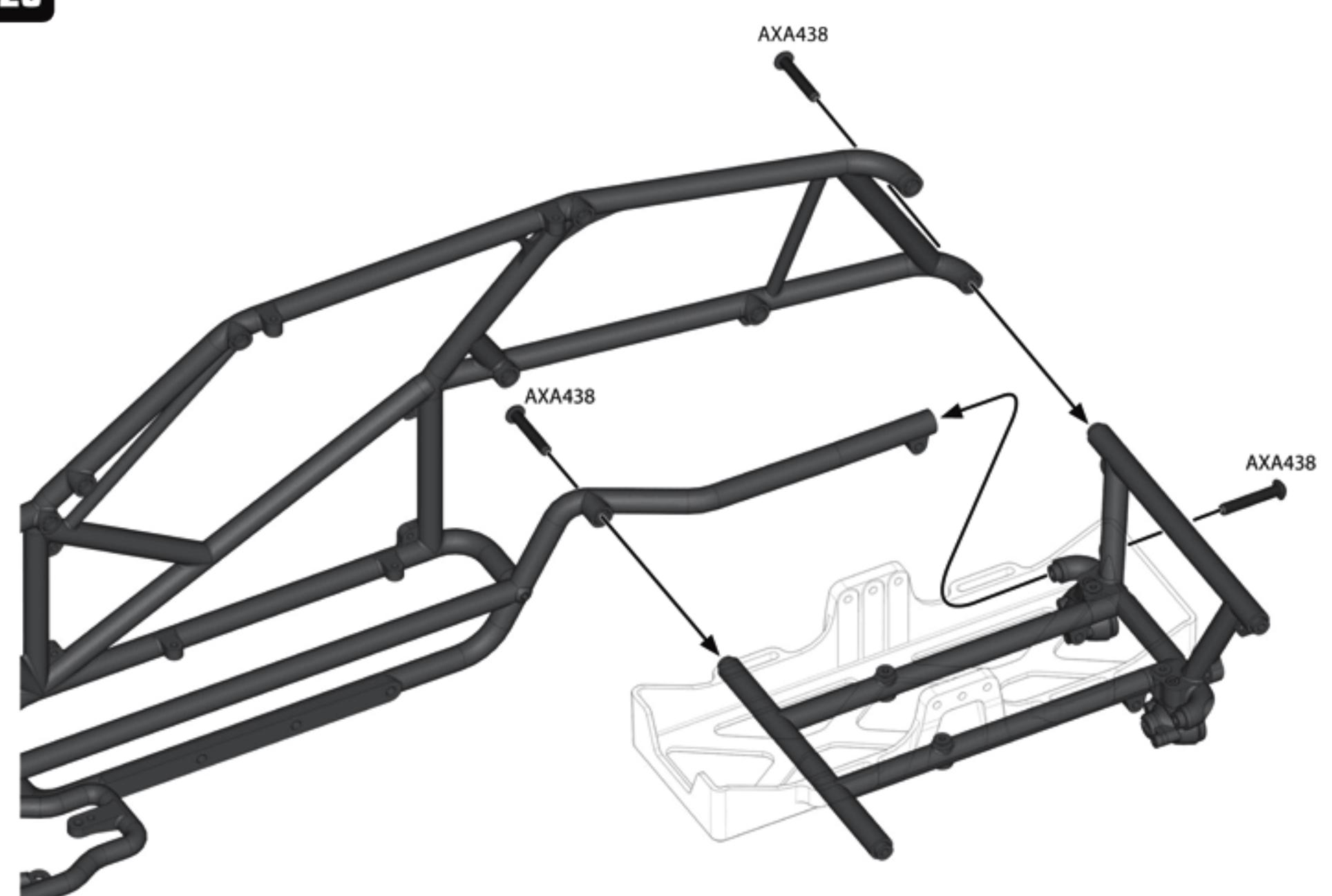
x3

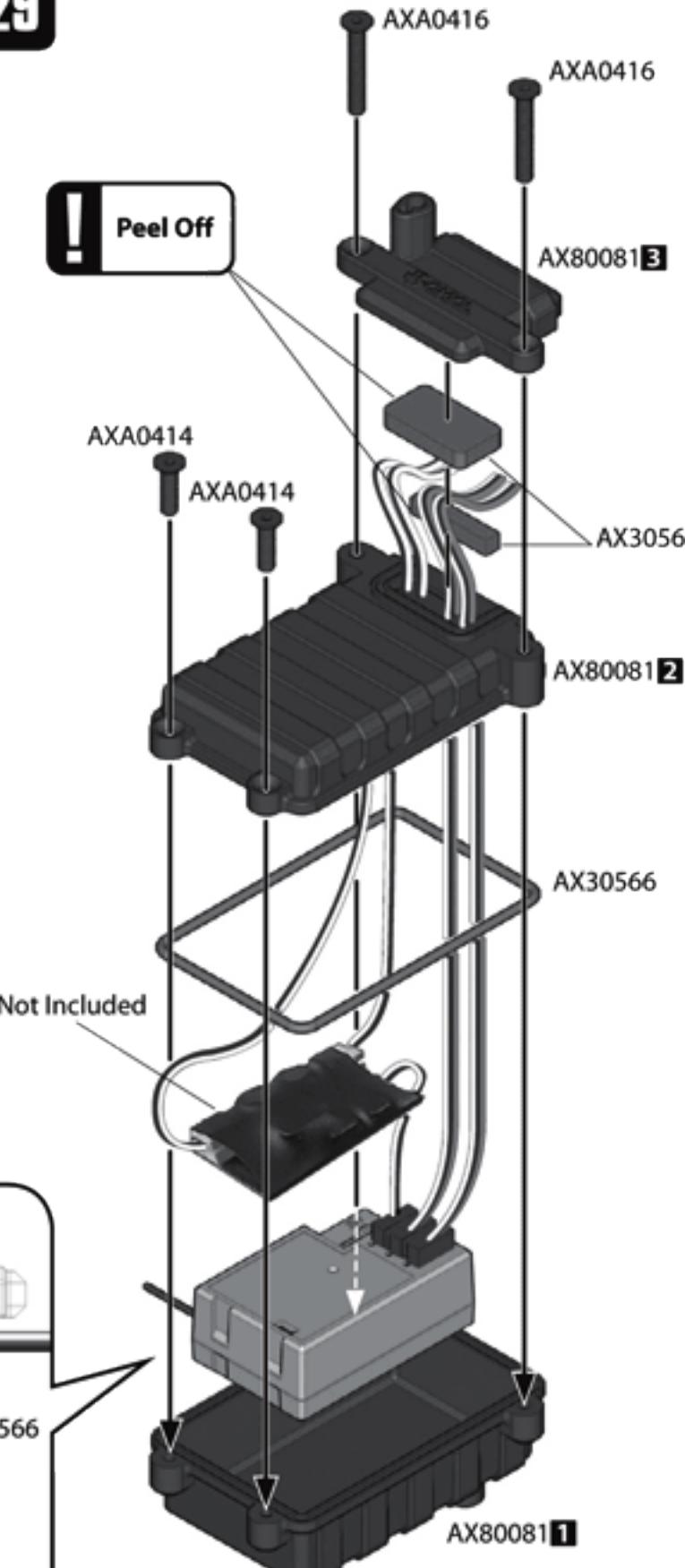


AXA438  
M3x18mm

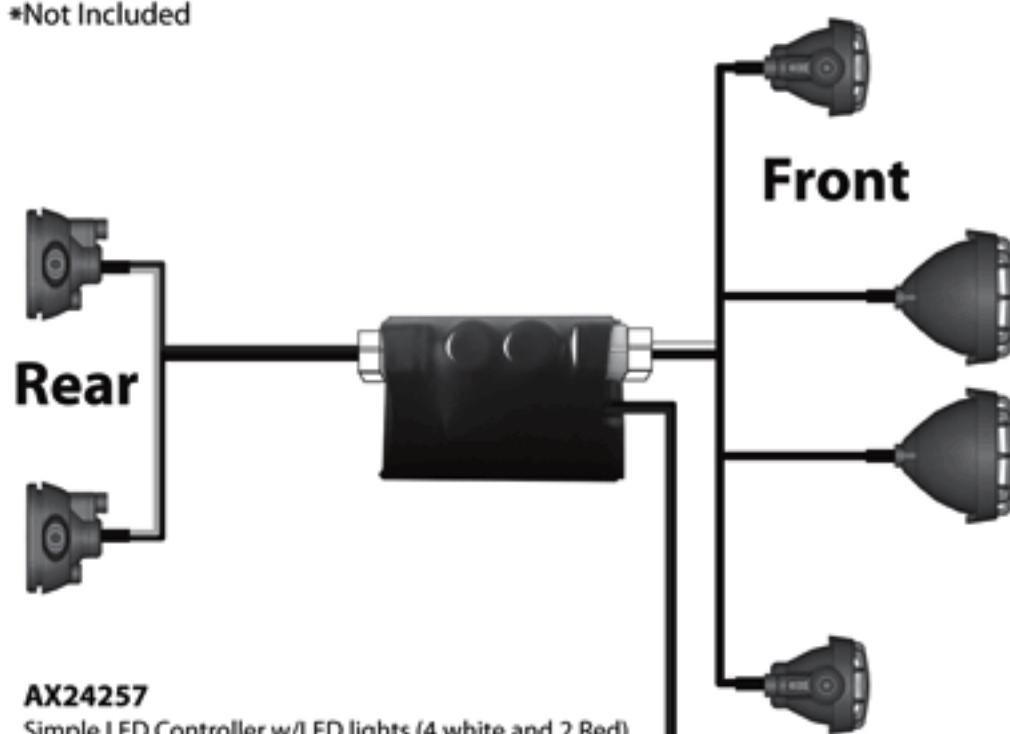
## 28

x3

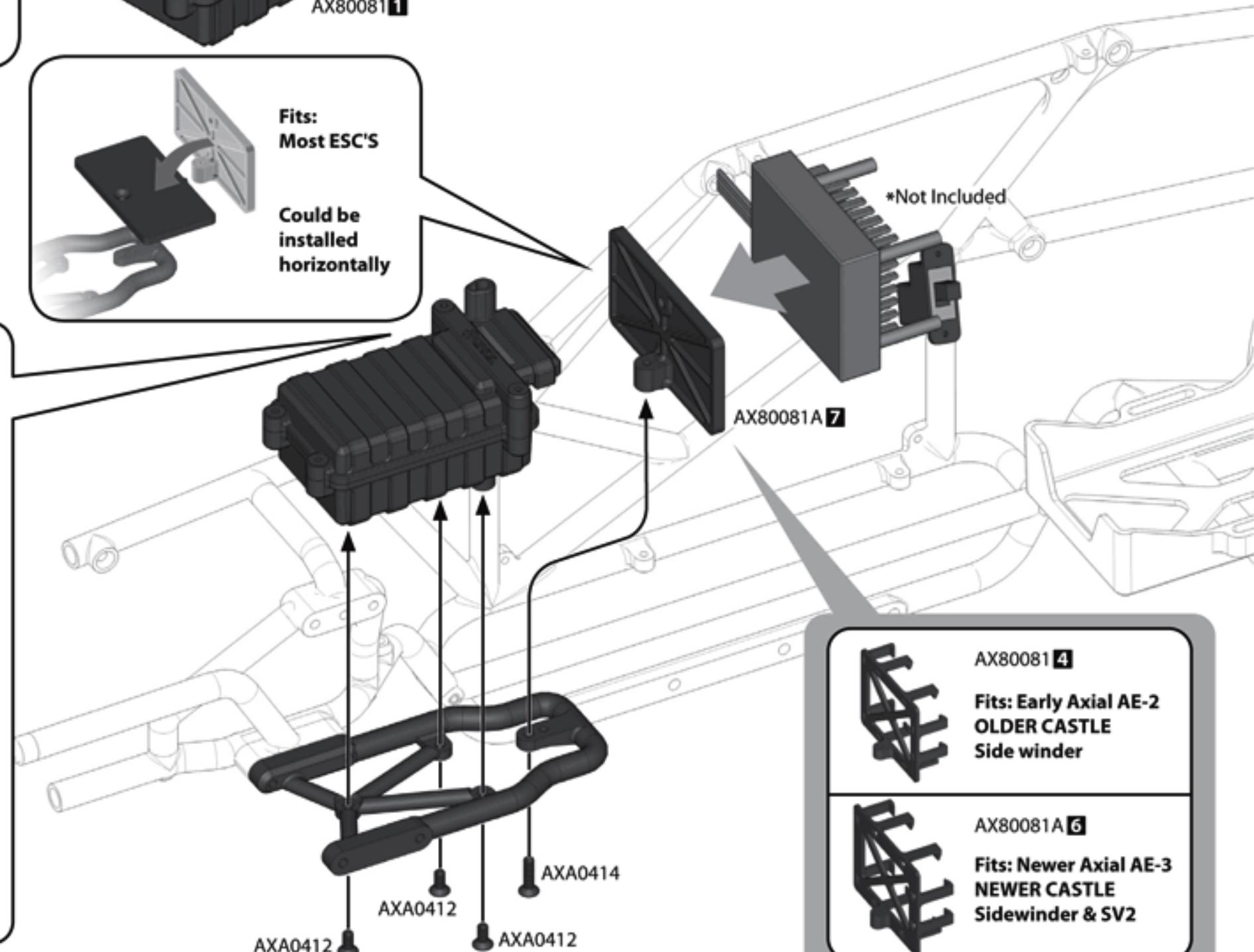
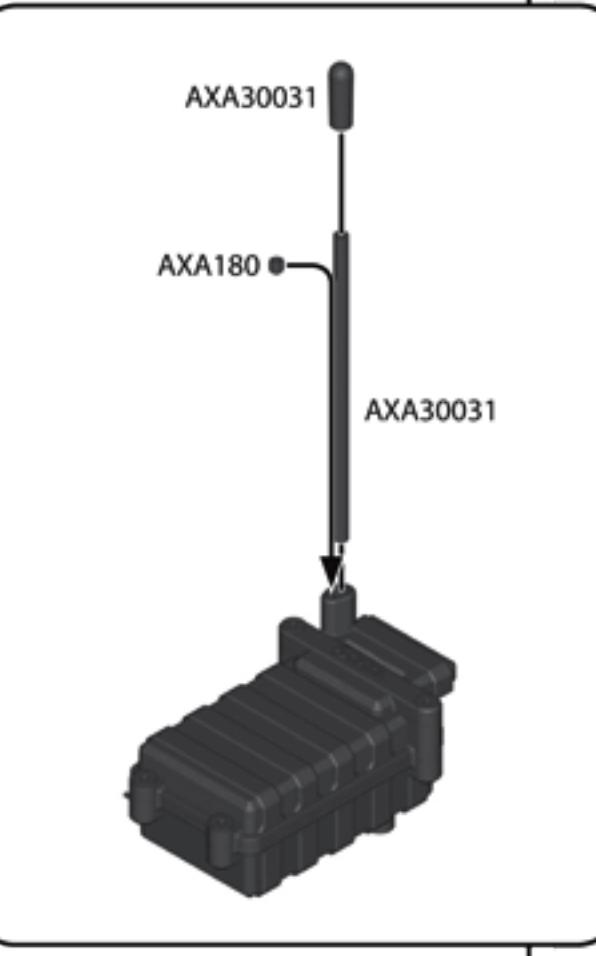
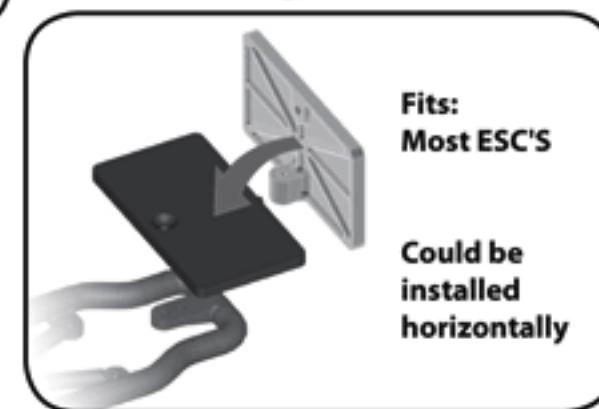
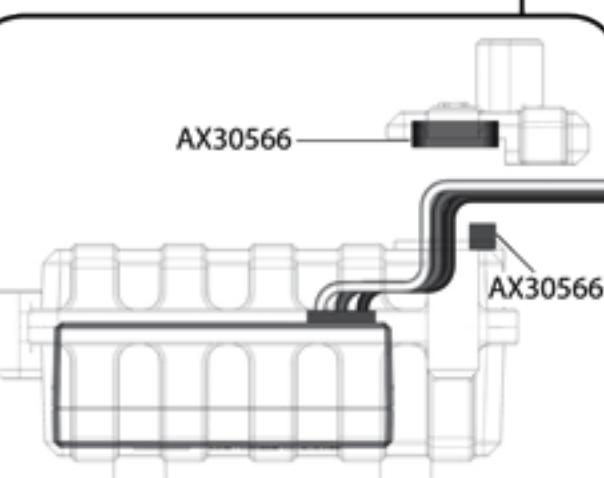
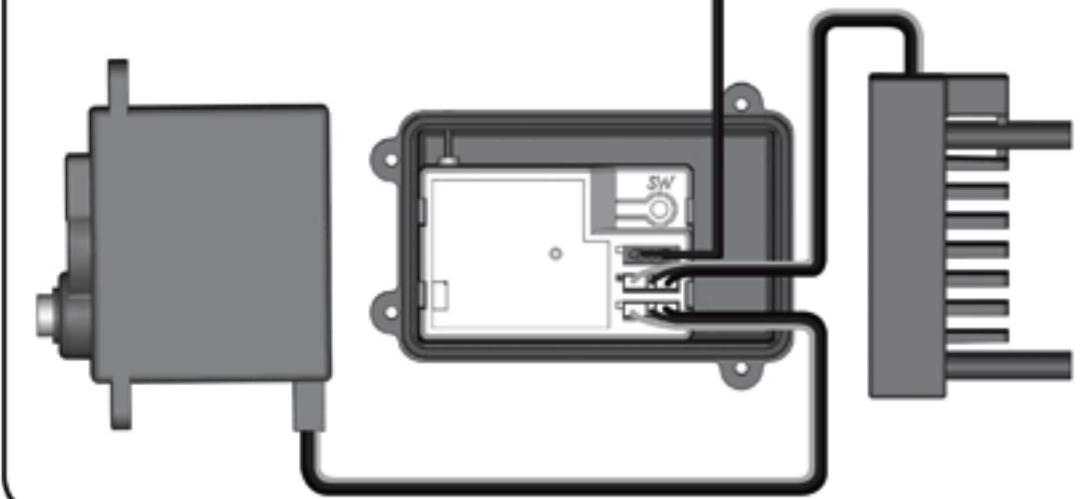


AXA0414  
M2.6x10mm x3AXA0416  
M2.6x18mm x2AXA0412  
M2.6x6mm x3AXA180  
M3x3mm x1

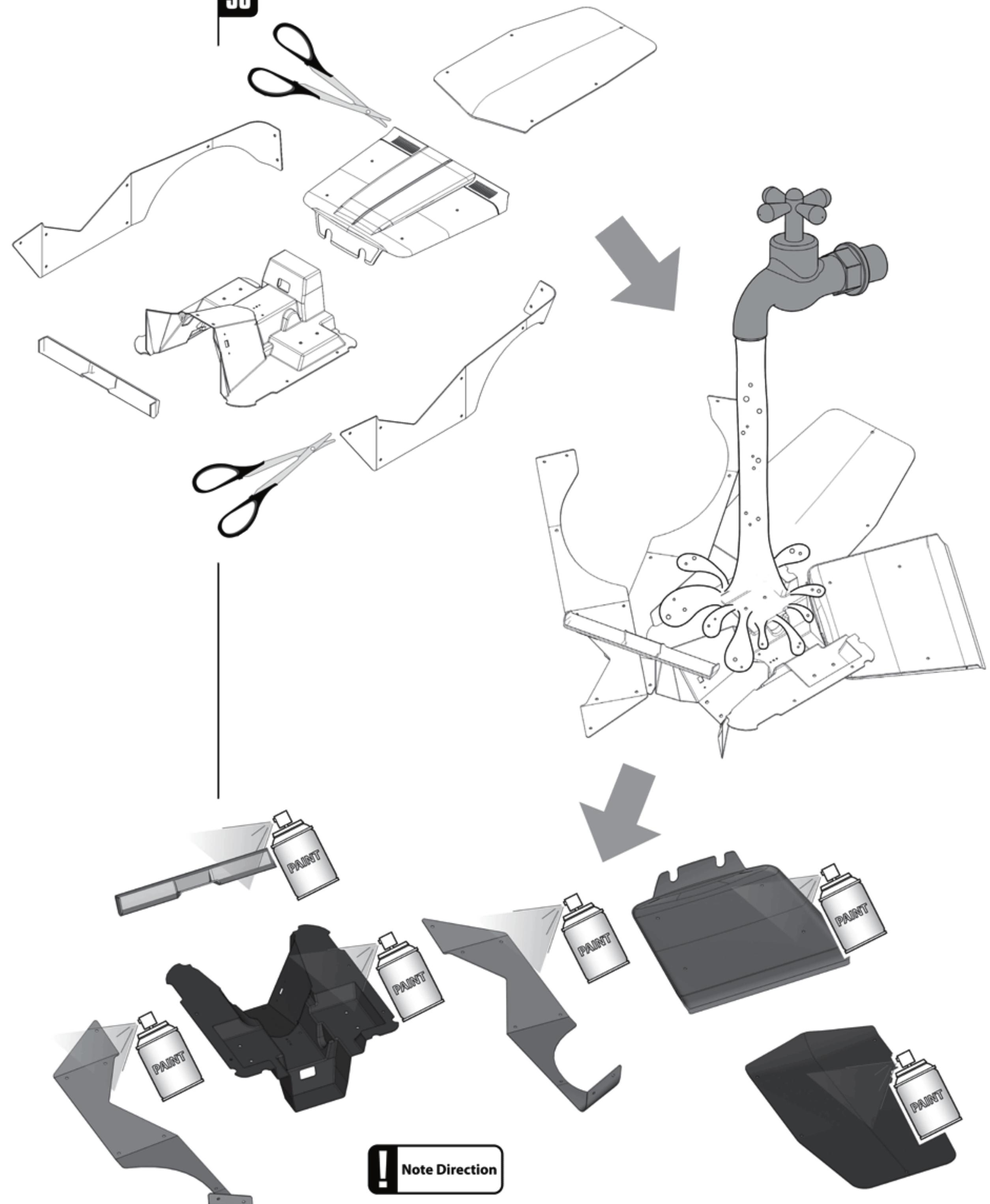
\*Not Included



\*Not Included

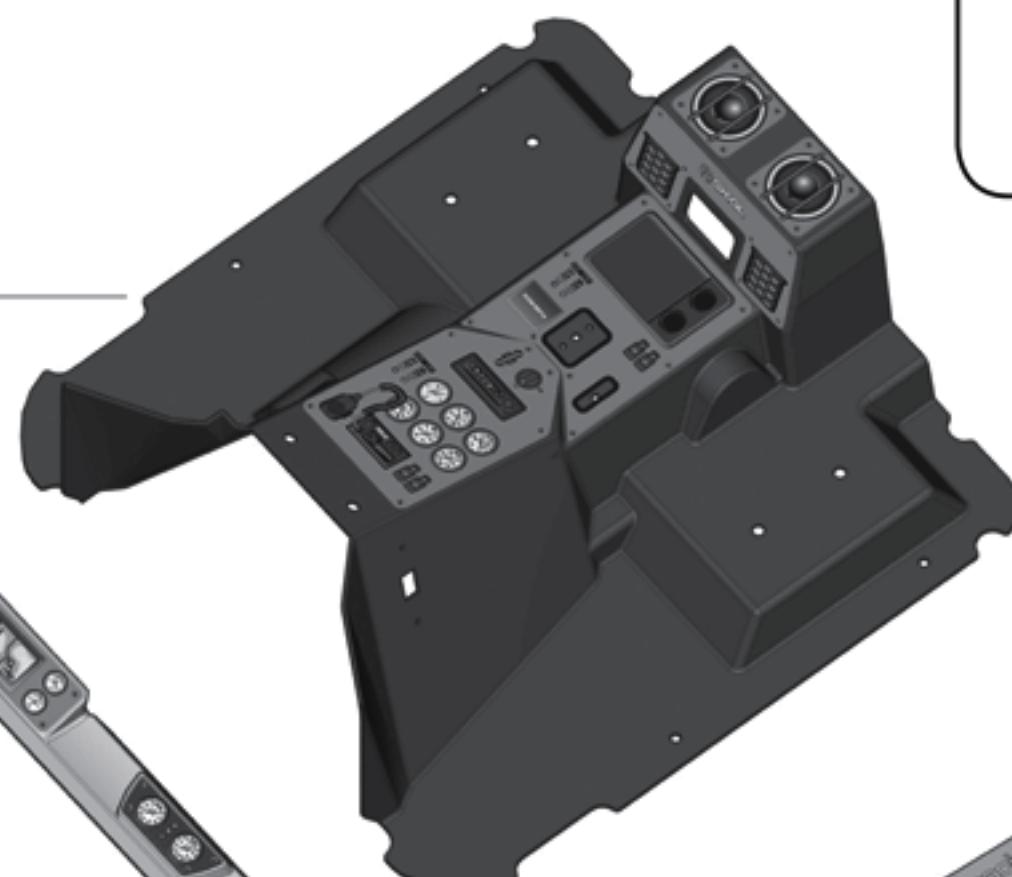
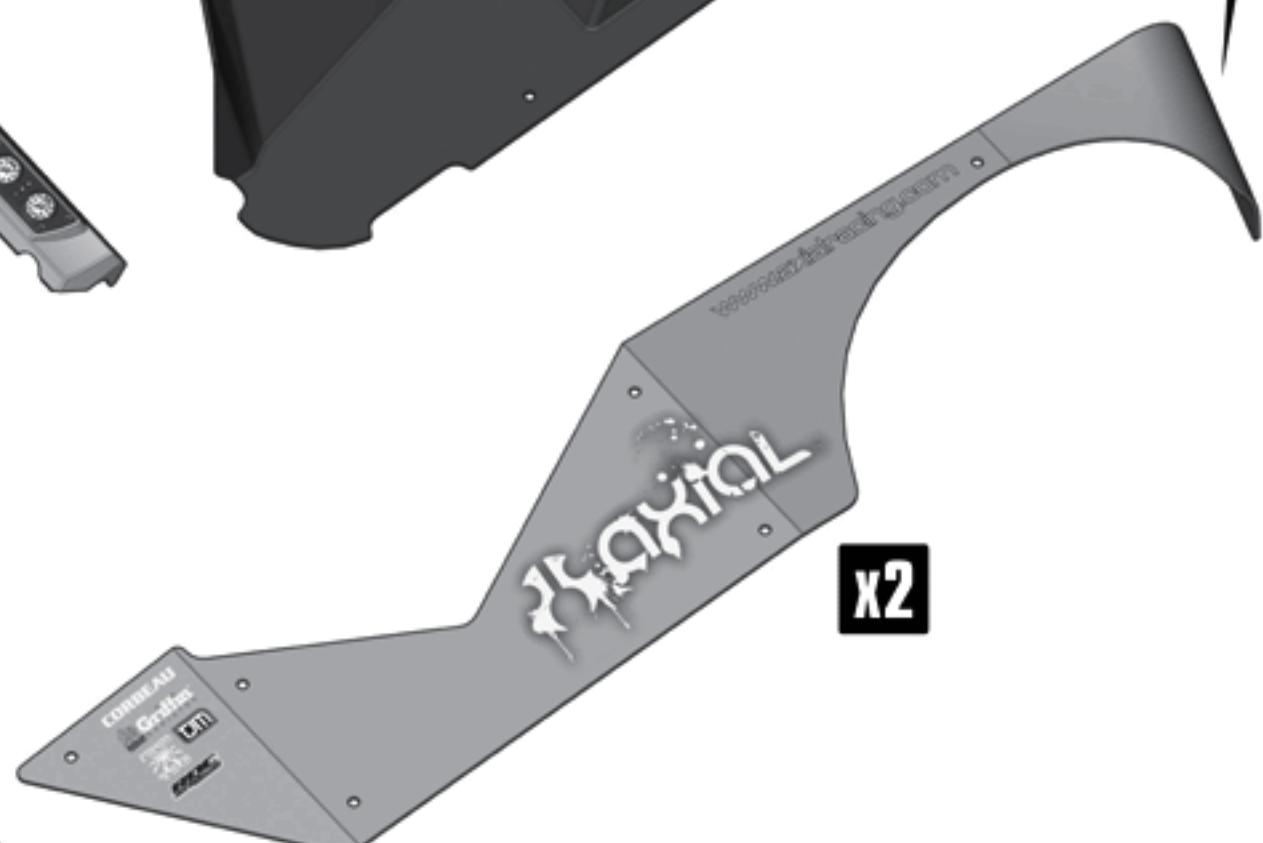
AXA0412  
AXA0414  
AXA0412
**AX80081 4**  
 Fits: Early Axial AE-2  
 OLDER CASTLE  
 Side winder

**AX80081A 6**  
 Fits: Newer Axial AE-3  
 NEWER CASTLE  
 Sidewinder & SV2



**31**

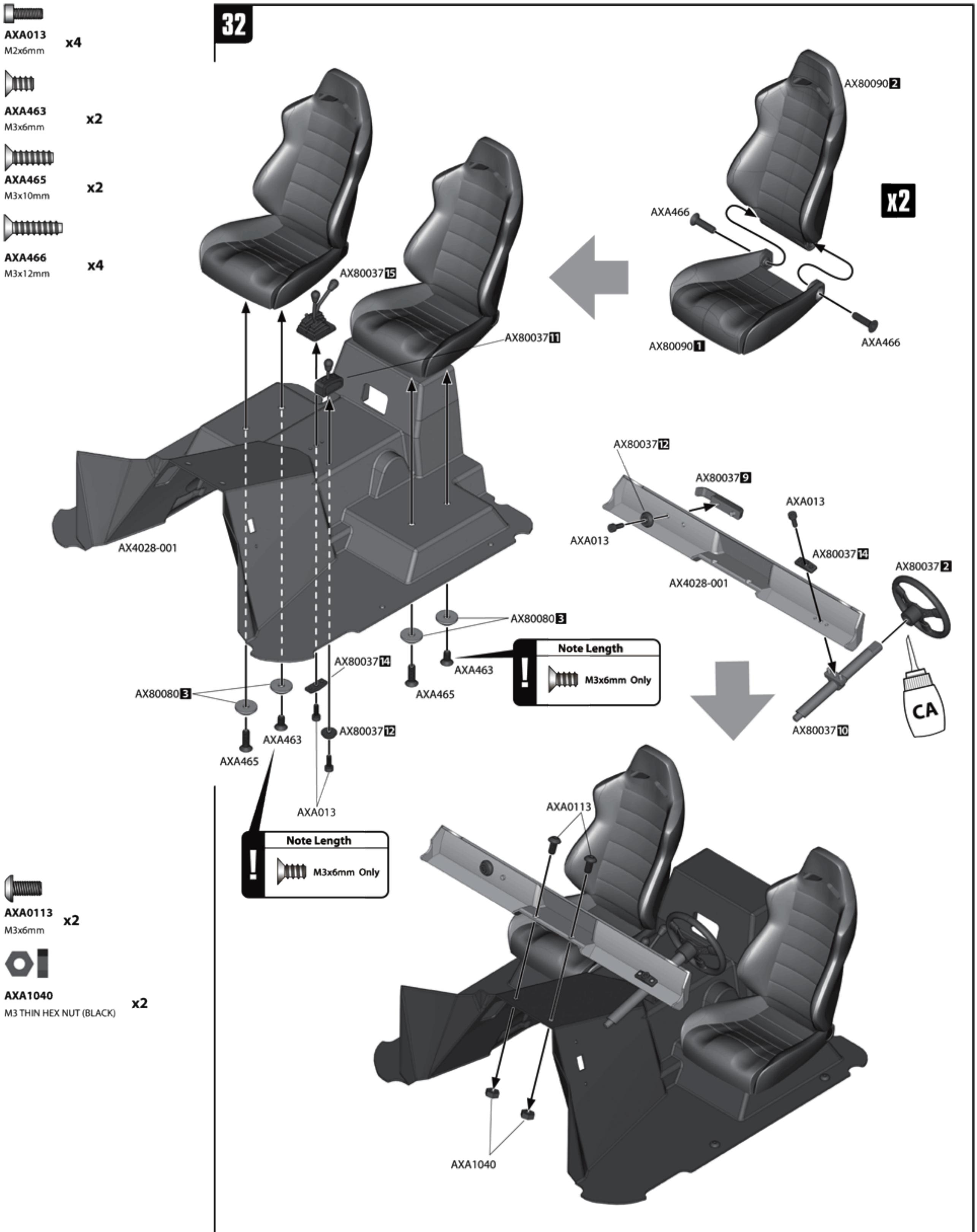
AX4028-003

**x2**

AX90018-D001 Wrath

**x2**

AX80080-D001





AXA0422  
x2  
M2.6x6mm



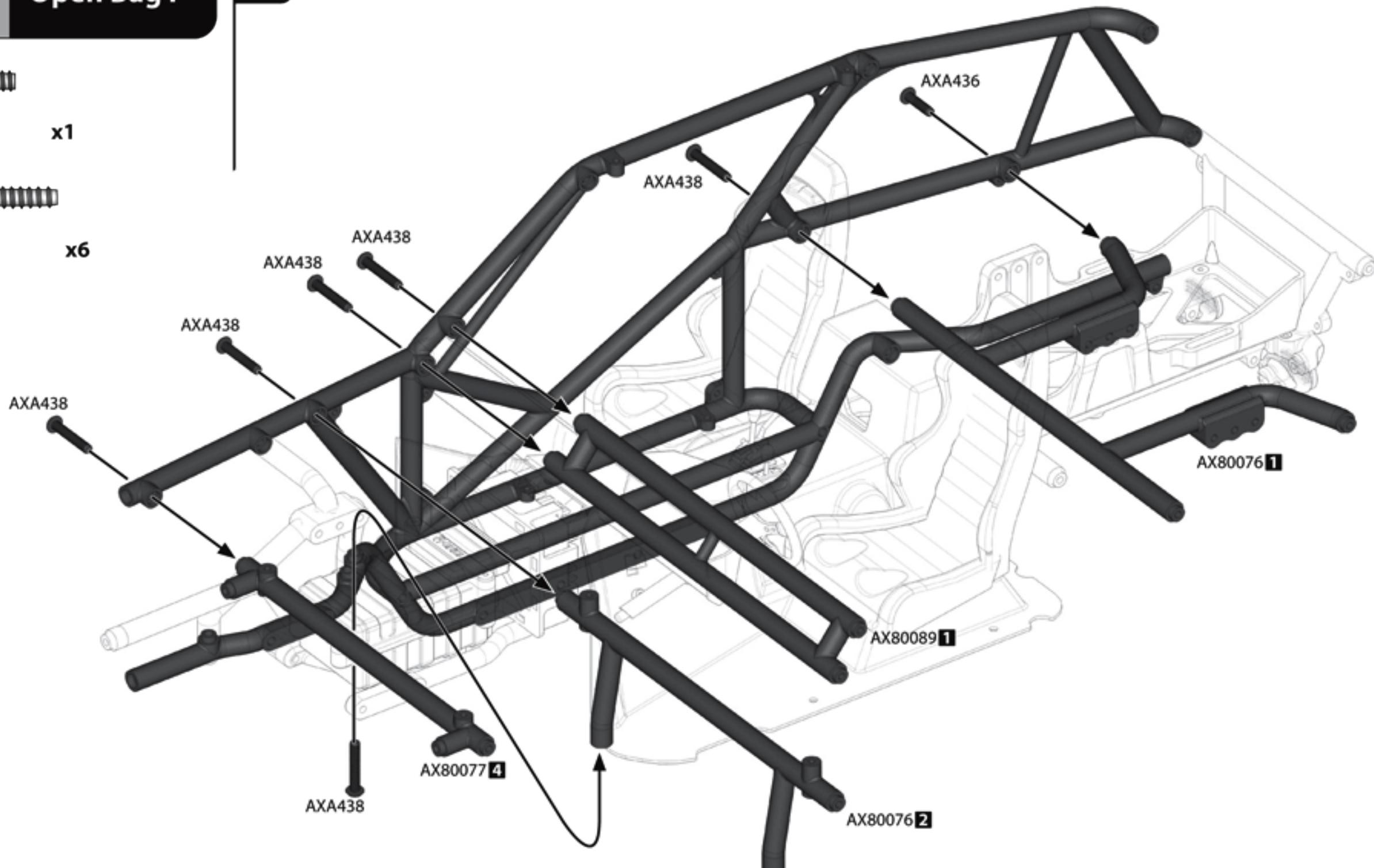
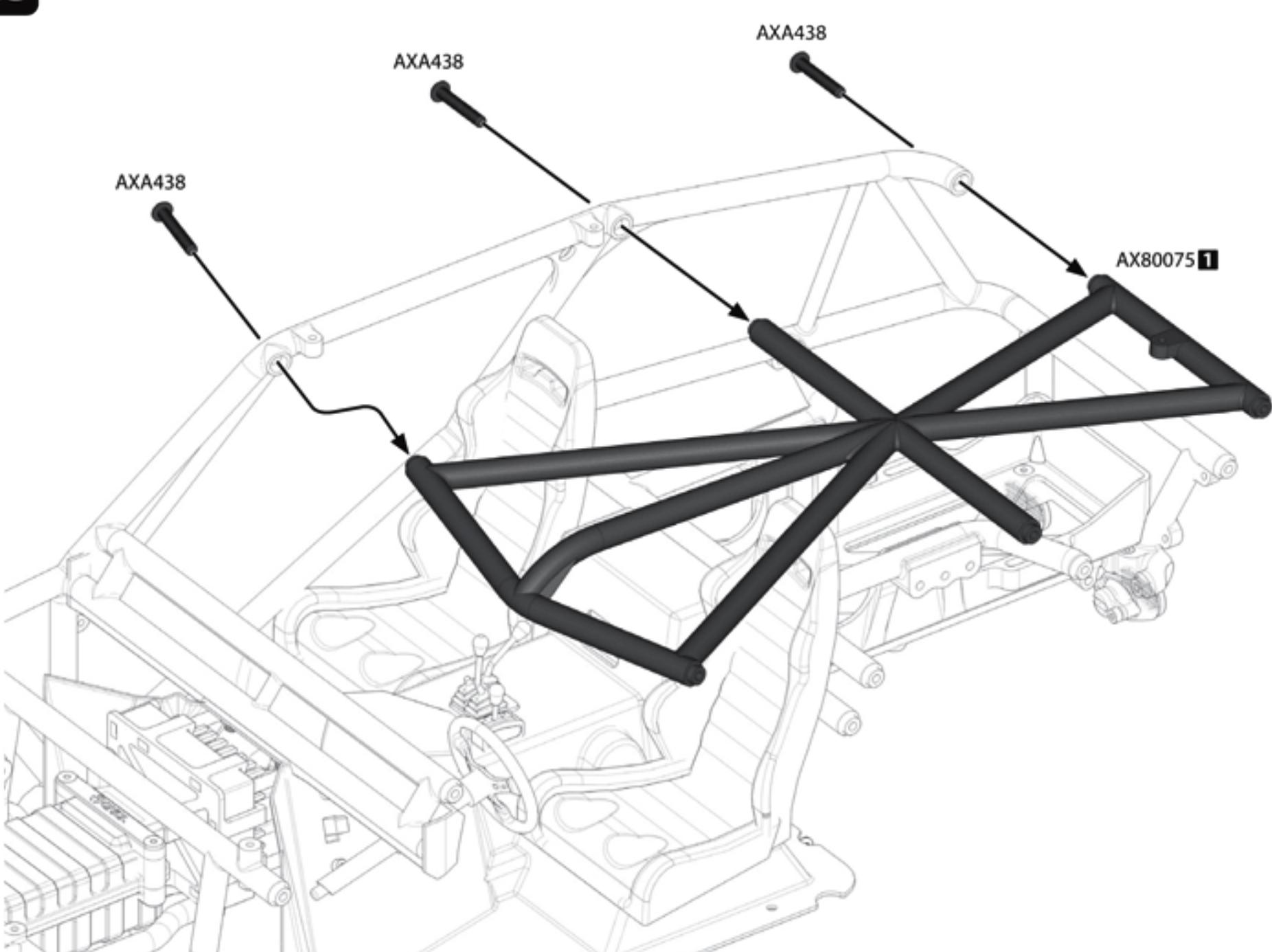
AXA013  
x2  
M2x6mm

33



**F**

## Open Bag F

**34****35**

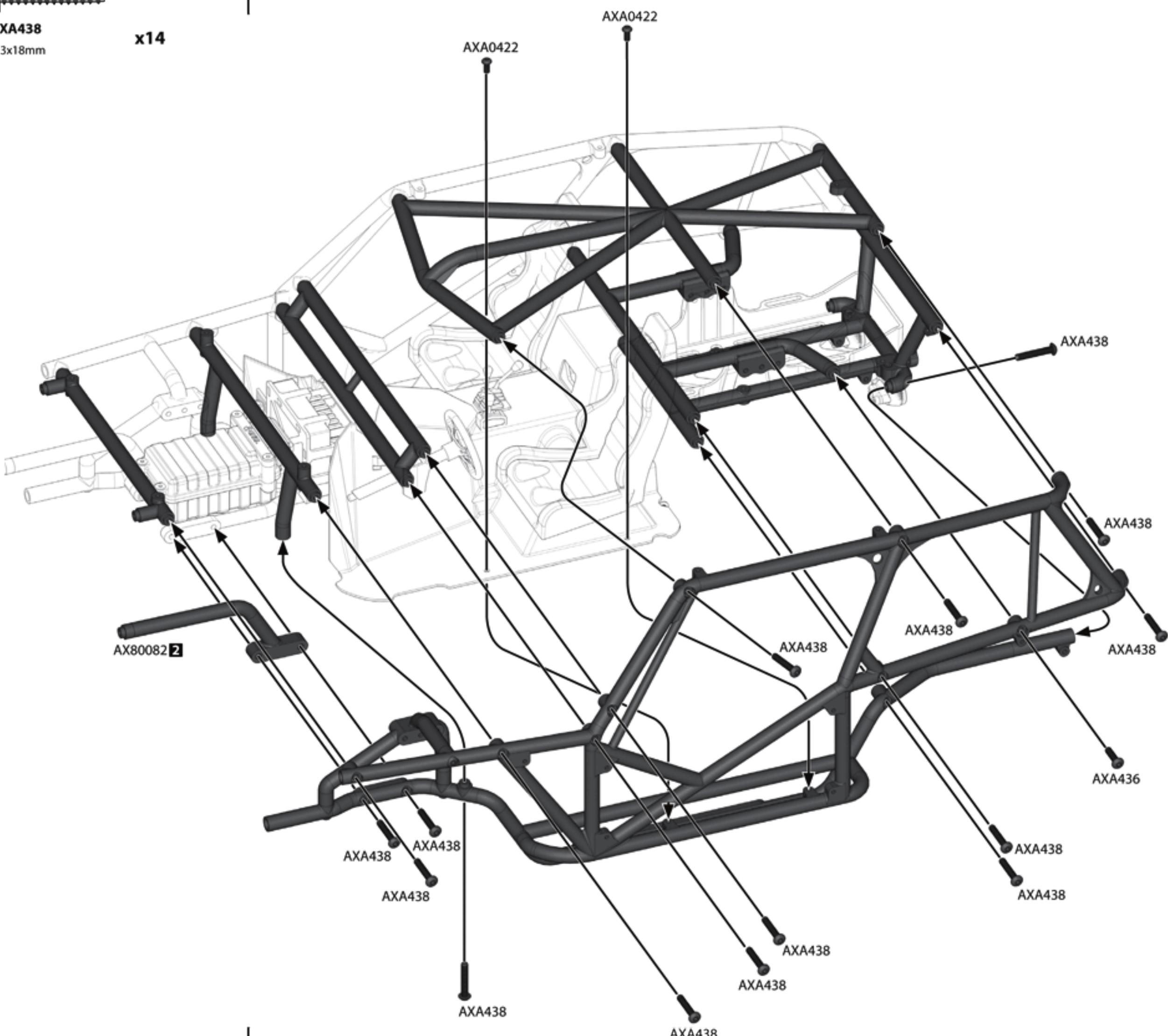
x2

 AXA0422  
M2.6x6mm

x1

 AXA436  
M3x12mm

x14

 AXA438  
M3x18mm



AXA013  
M2x6mm  
**x4**

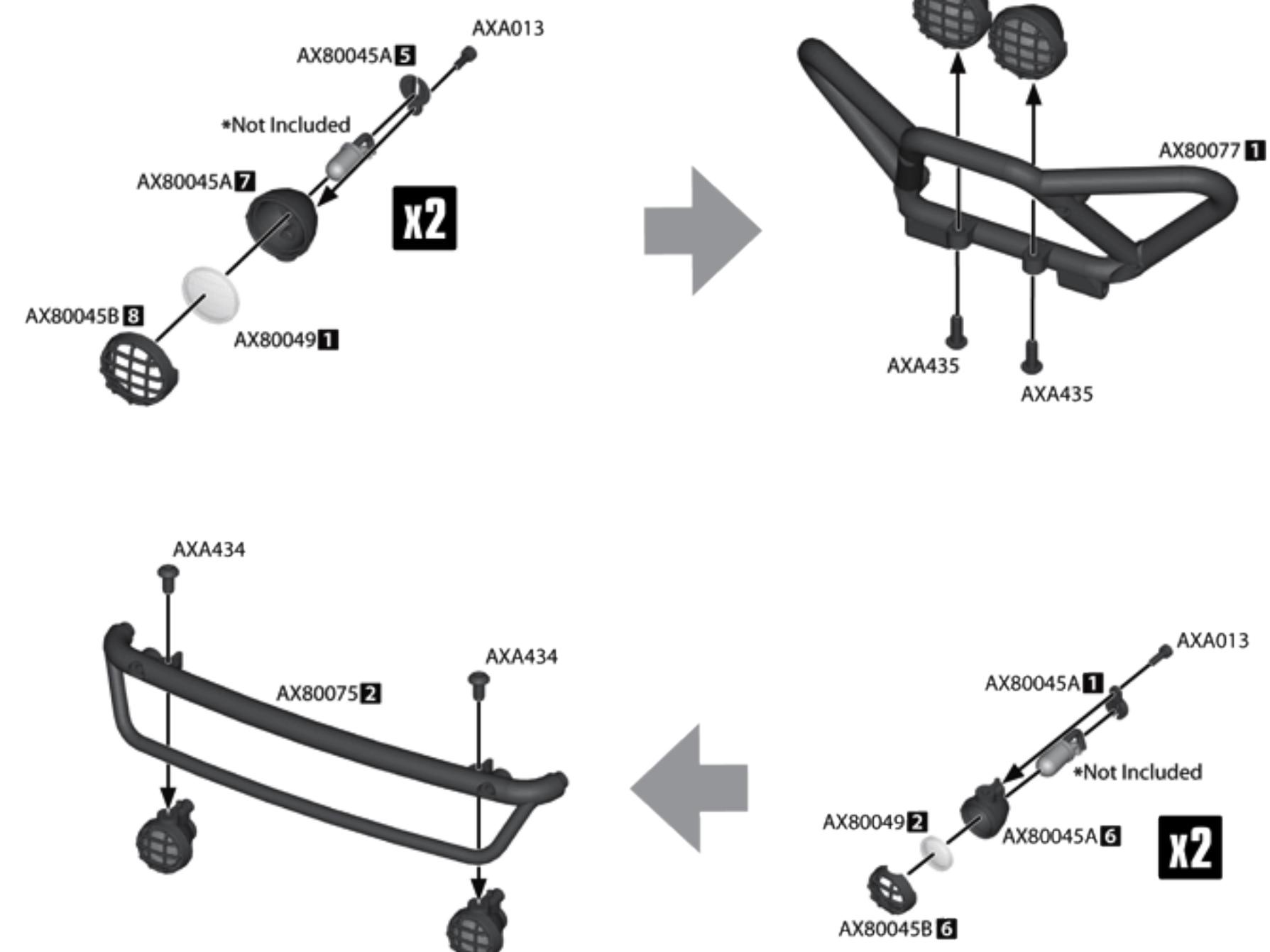


**x2**



**x2**

37

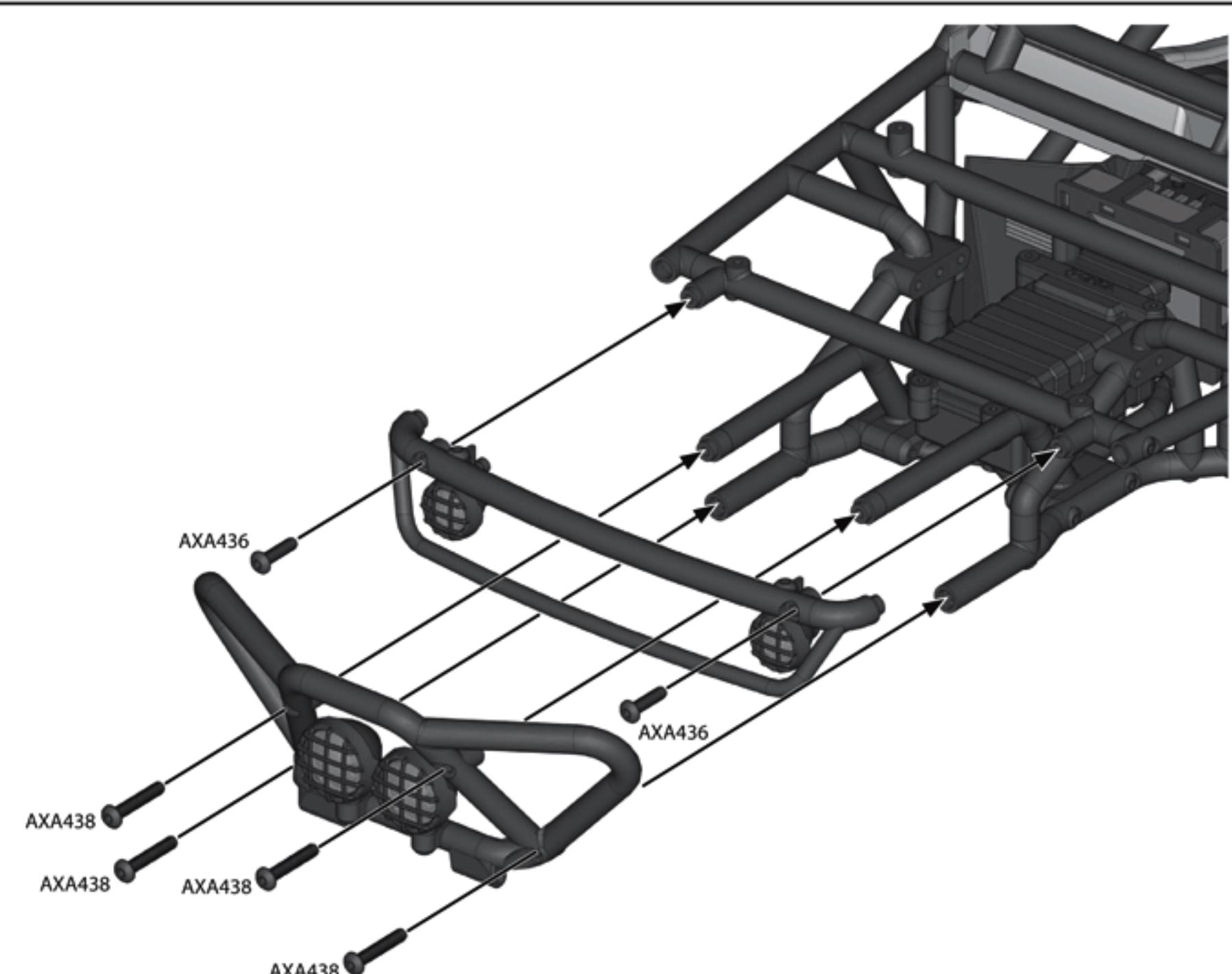


AXA436  
M3x12mm  
**x2**



**x4**

38

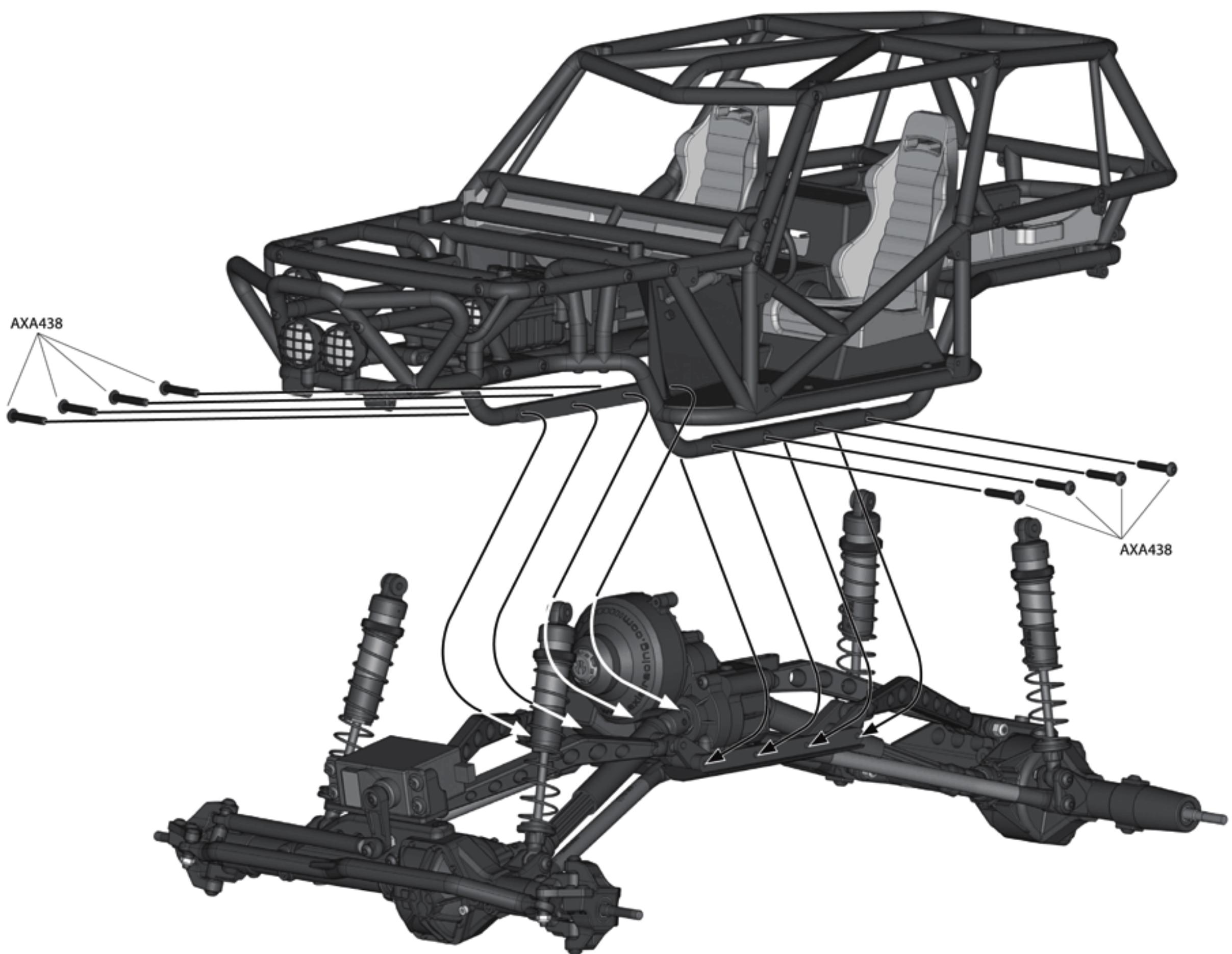




AXA438  
M3x18mm

x8

39

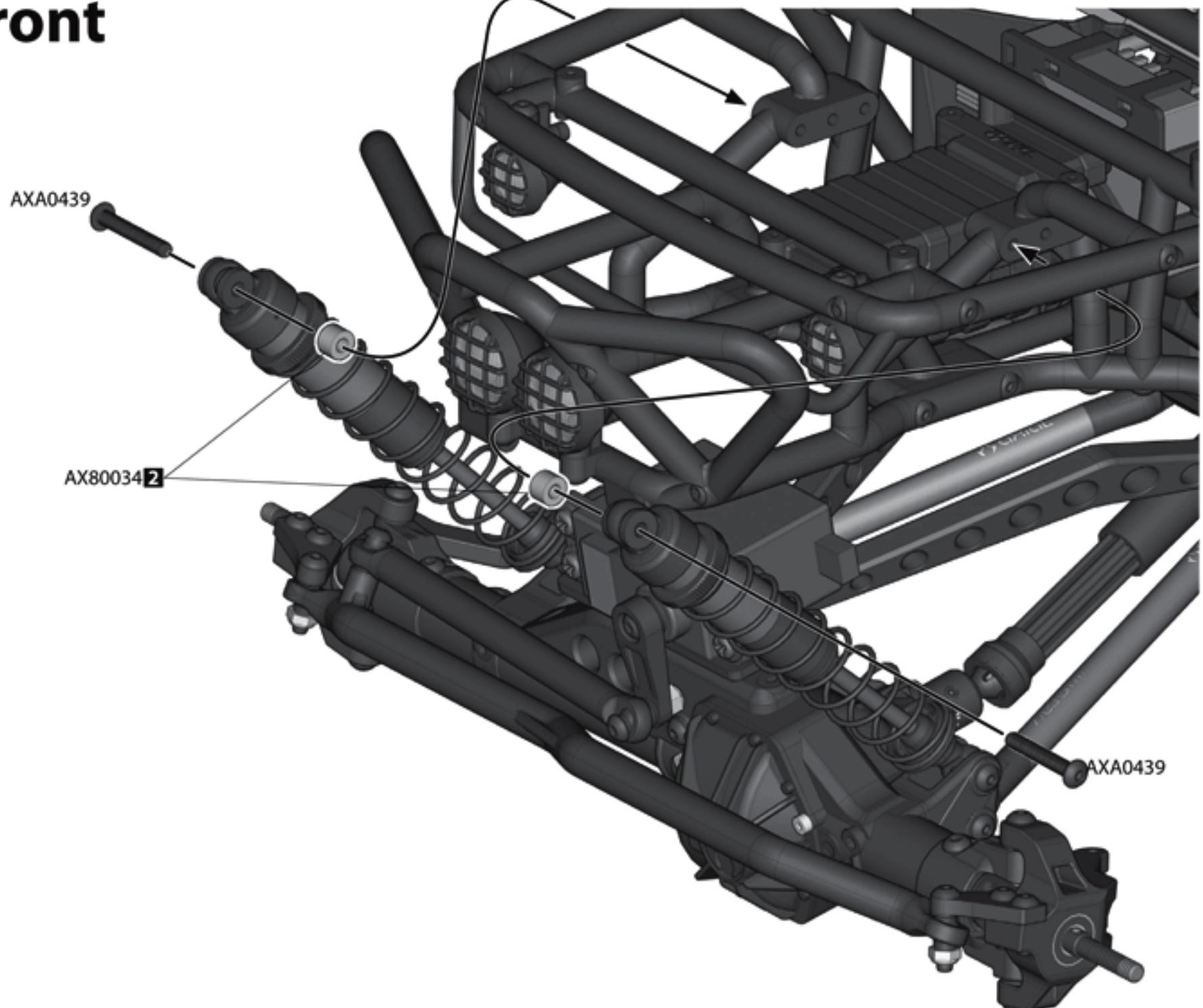




AXA0439  
M3x20mm

x2

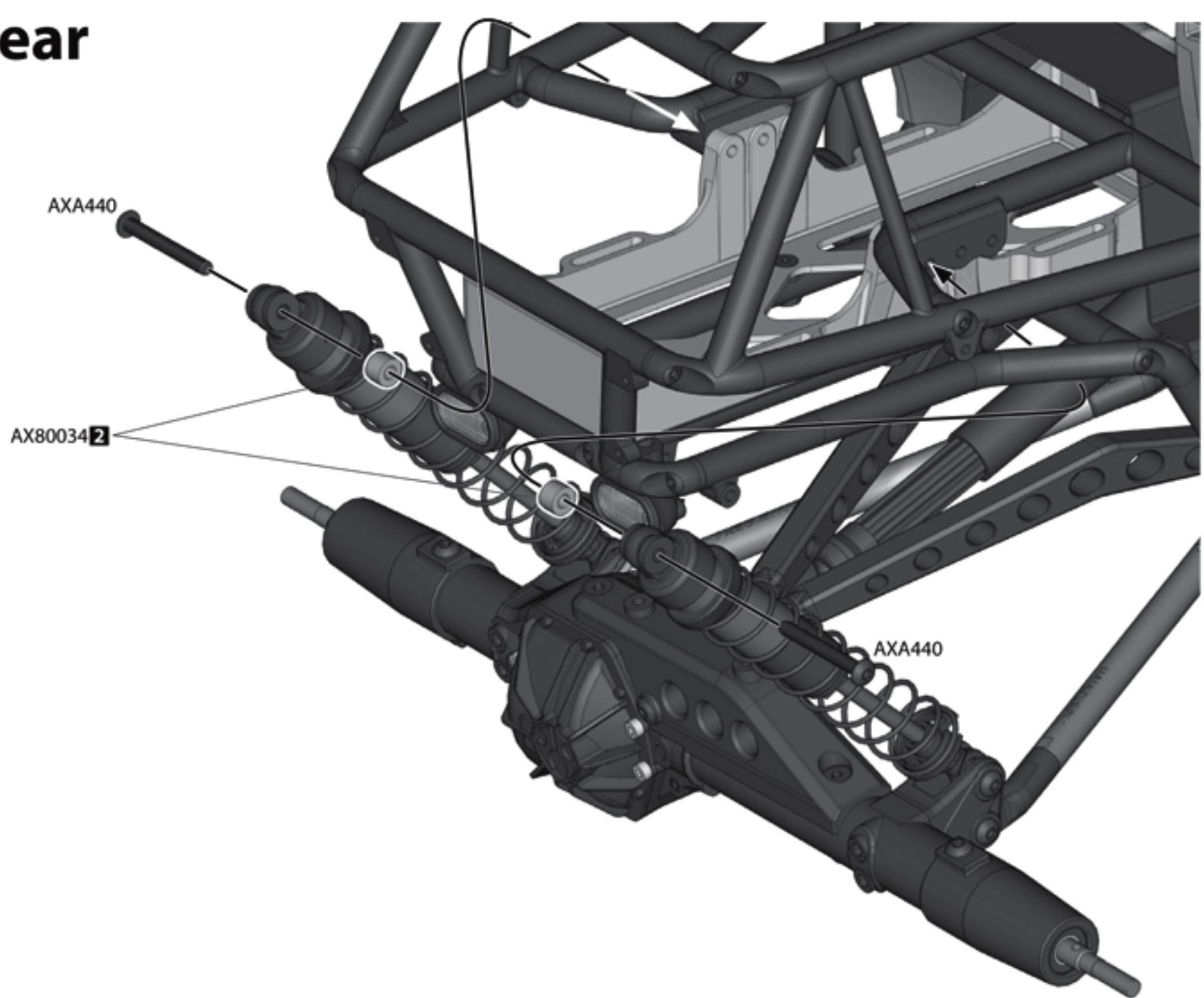
## 40 Front



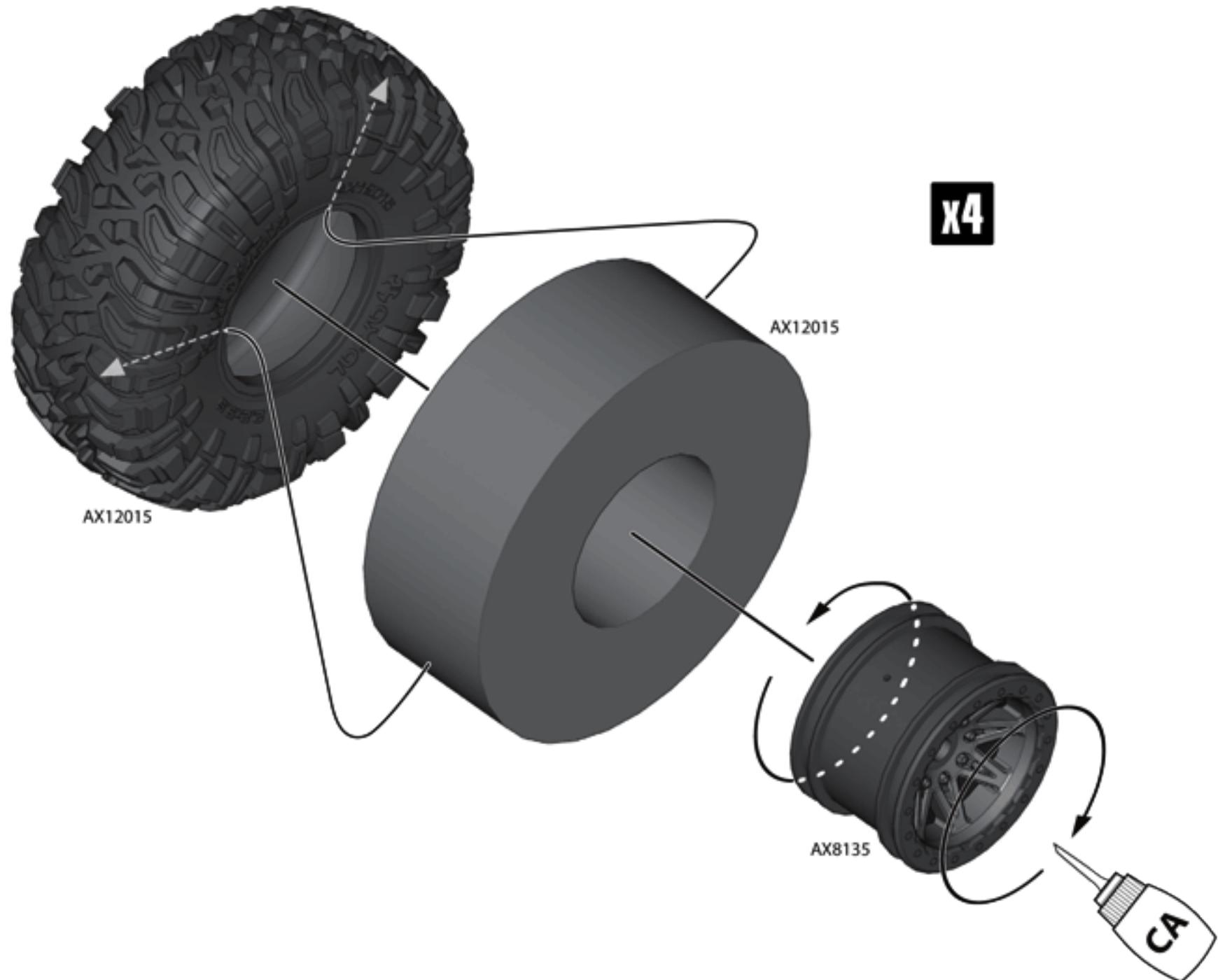
AXA440  
M3x25mm

x2

## 41 Rear



42

**G****Open Bag G**

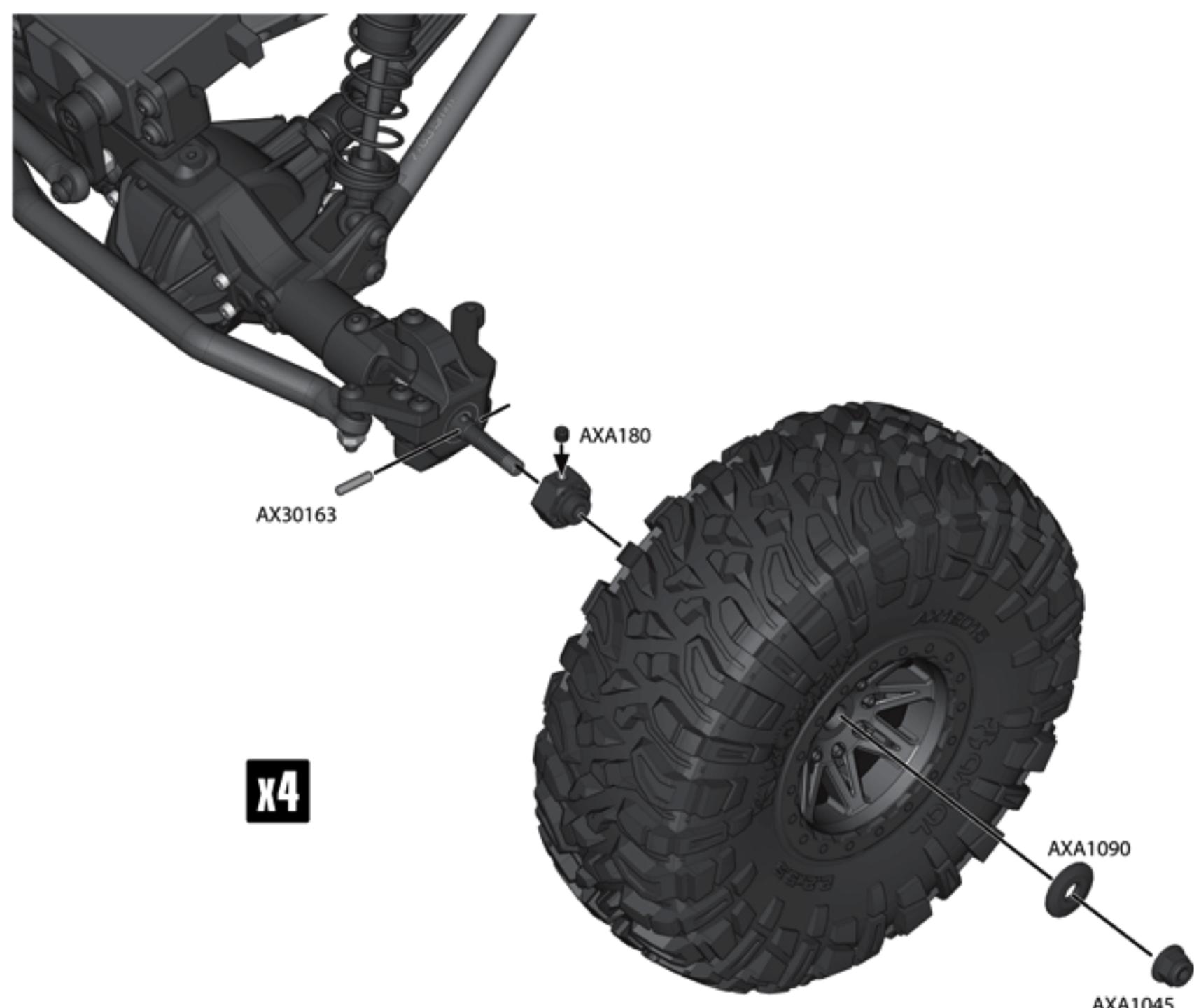
AXA180 x4  
M3x3mm

AX30163 x4  
PIN 2.0x10mm

AXA1045 x4  
M4 Nylon Lock Nut (Black)

AXA1090 x4  
Washer 4.8x14 (Green)

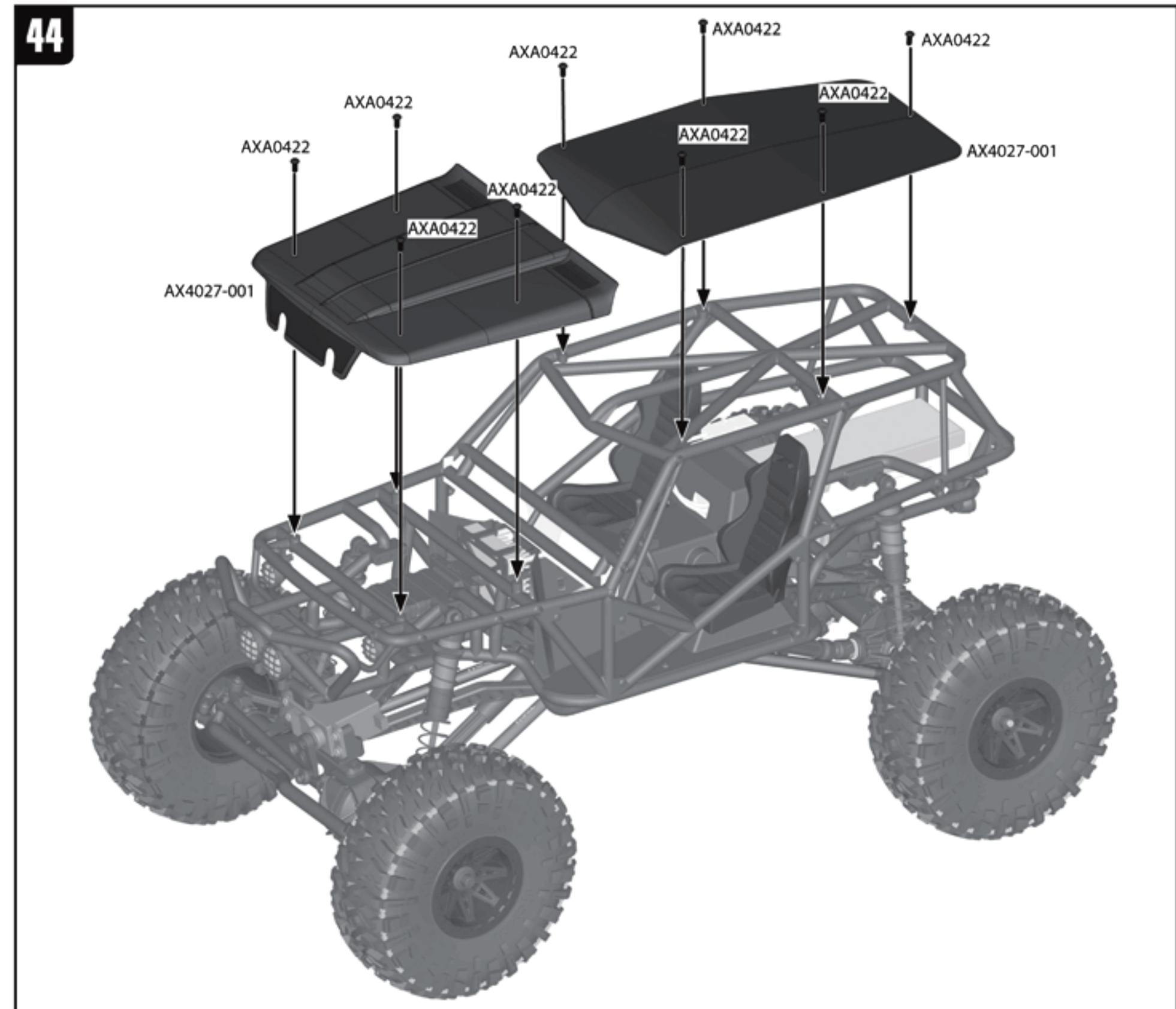
43



 AXA0422  
M2.6x6mm

x9

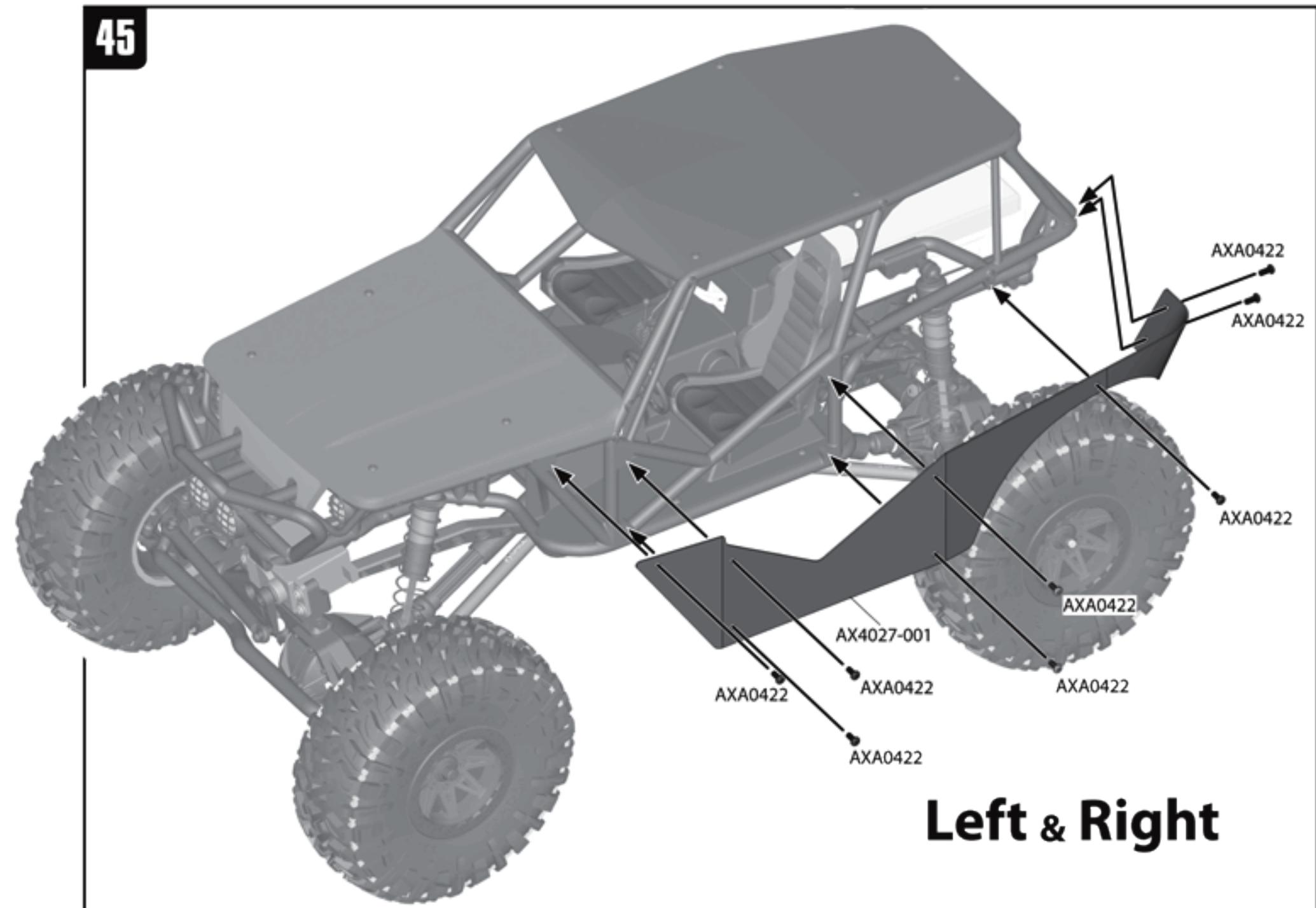
44



 AXA0422  
M2.6x6mm

x16

45



## Gear Ratio / Getriebeübersetzung

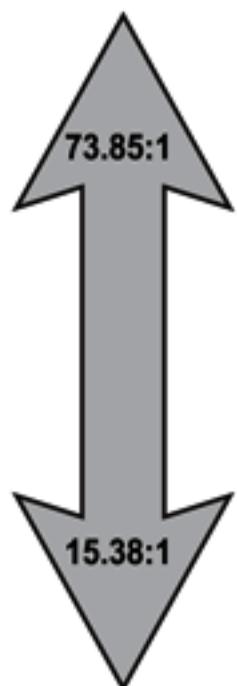
Use this equation to calculate the final drive ratio.

$$\text{Final Drive Gear Ratio} = 1 / (\text{pinion/Spur}) \times .13$$

Mit dieser Gleichung können Sie die Gesamtübersetzung berechnen.

$$\text{Gesamtübersetzung} = 1 / (\text{pinion/Spur}) \times .13$$

**Slower - More Torque**  
Langsamer - Mehr Kraft



**Faster - Less Torque**  
Schneller - Weniger Kraft

Pinion	48 Pitch Spur									
	70	72	75	78	81	85	87	90	93	96
10								69.23	71.54	73.85
11								62.94	65.03	67.13
12							55.77	57.69	59.62	61.54
13							51.48	53.25	55.03	56.80
14						46.70	47.80	49.45	51.10	52.75
15						43.59	44.62	46.15	47.69	49.23
16						40.87	44.62	43.27	44.71	46.15
17						36.32	39.37	40.72	42.08	43.44
18					34.62	34.41	37.18	38.46	39.74	41.03
19					32.79	34.41	35.22	36.44	37.65	38.87
20					31.15	32.69	33.46	34.62	35.77	36.92
21				28.57	29.67	31.14	31.87	32.97	34.07	35.16
22				27.27	28.32	29.72	30.42	31.47	32.52	33.57
23				26.09	27.09	28.43	29.10	30.10	31.10	32.11
24			24.04	25.00	25.96	27.24	27.88	28.85	29.81	30.77
25			23.08	24.00	24.92	26.15	26.77	27.69	28.62	29.54
26			22.19	23.08	23.96	25.15	25.74	26.63	27.51	28.40
27	20.51	21.37	22.22	23.08	24.22	24.79	25.64	26.50	27.35	
28	19.78	20.60	21.43	22.25	23.35	23.90	24.73	25.55	26.37	
29	18.57	19.10	19.89	20.69	21.49	22.55	23.08	23.87	24.67	25.46
30	17.95	18.46	19.23	20.00	20.77	21.79	22.31	23.08	23.85	24.62
31	17.37	17.87	18.61	19.35	20.10	21.09	21.59	22.33	23.08	23.82
32	16.83	17.31	18.03	18.75	19.47	20.43	20.91	21.63	22.36	23.08
33	16.32	16.78	17.48	18.18	18.88	19.81	20.28	20.98	21.68	22.38
34	15.84	16.29	16.97	17.65	18.33	19.23	19.68	20.36	21.04	21.72
35	15.38	15.82	16.48	17.14	17.80	18.68	19.12	19.78	20.44	21.10

## Wheels - Tires / Räder - Ermüdet

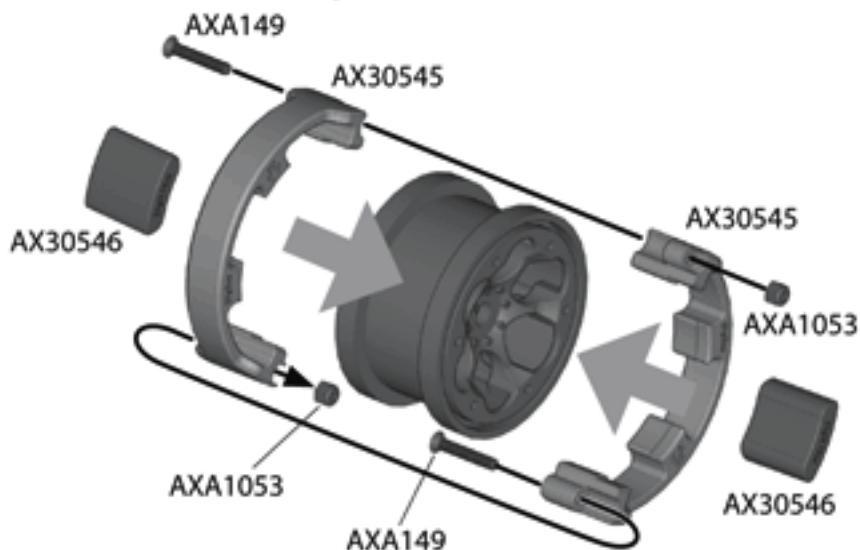
The Wraith Rock Racer is set up to be competitive right out of the box, however terrain, weather and driving style all affect the performance of the chassis. You can fine tune performance of your Wraith Rock Racer by adding weight, trimming the inner foam, and tuning your tires.

Der Wraith Rock Racer ist konstruiert, um aus der Schachtel konkurrenzfähig zu sein, jedoch beeinflussen Gelände, Wetter und Fahrstil die Leistung vom Chassis. Sie können die Leistung Ihres Wraith Rock Racer durch hinzufügen von Gewichten, Trimen der Reifeneinlage und der Reifenabstimmung einstellen.

### Adding Weight / Addiergewicht

You can add weight to the front axle to improve traction. Most users will use stick on wheel weights that fit inside the tire and mount to the wheel, but you can also use Airsoft pellets or BB's. You will have to experiment to determine how much weight to add.

Sie können an der Vorderachse Gewicht hinzufügen um die Traktion zu verbessern. Die meisten Fahrer verwenden Aufsteckbare Rädergewichte die innerhalb des Reifens montiert werden, Sie können aber auch Airsoft Kugeln oder BB's verwenden. Sie werden experimentieren müssen, um zu bestimmen, wieviel Gewicht Sie hinzufügen müssen.

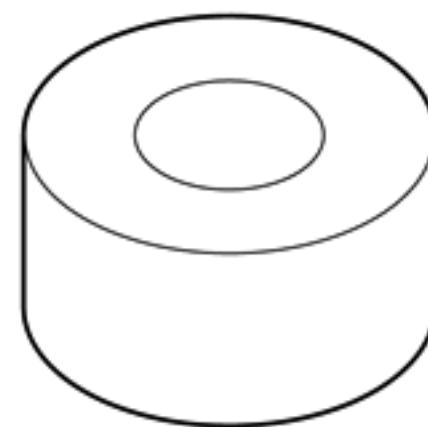


### Tire Flex / Reifen Flex

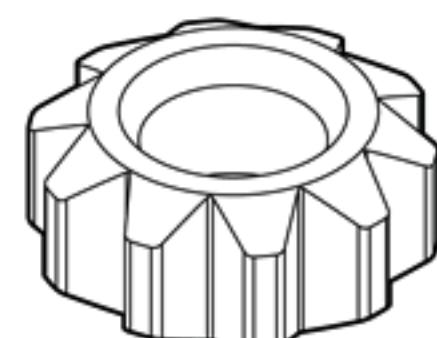
You can adjust the amount of tire flex you get by trimming your inner foam. Visit [www.rccrawler.com](http://www.rccrawler.com) to see all the choices you have before trimming your inner foams.

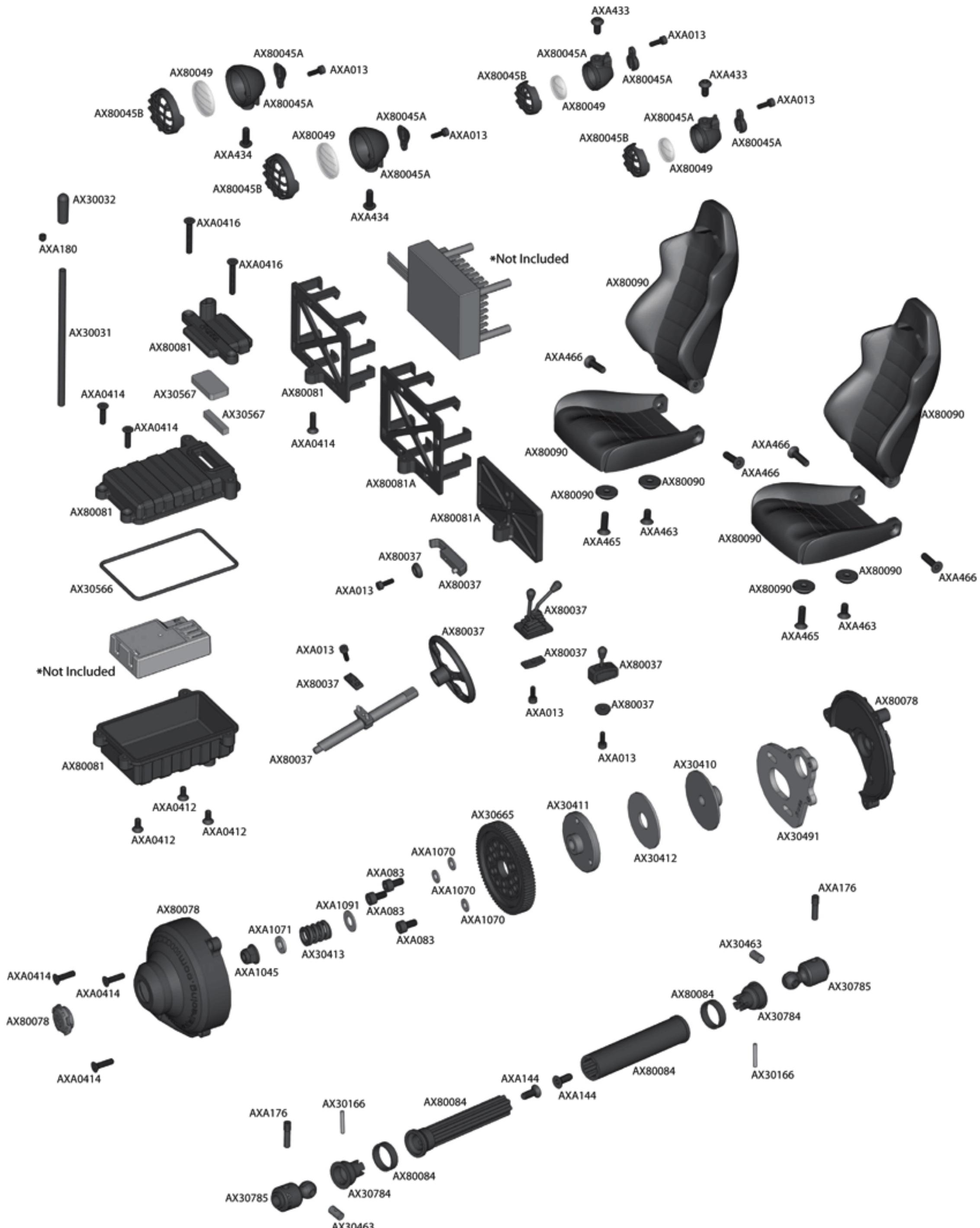
Sie können die Eigenschaften des Reifens durch trimmen der Reifeneinlage ändern. Besuchen Sie [www.rccrawler.com](http://www.rccrawler.com), um Möglichkeiten für diese Änderung zu sehen, bevor Sie die Einlage bearbeiten.

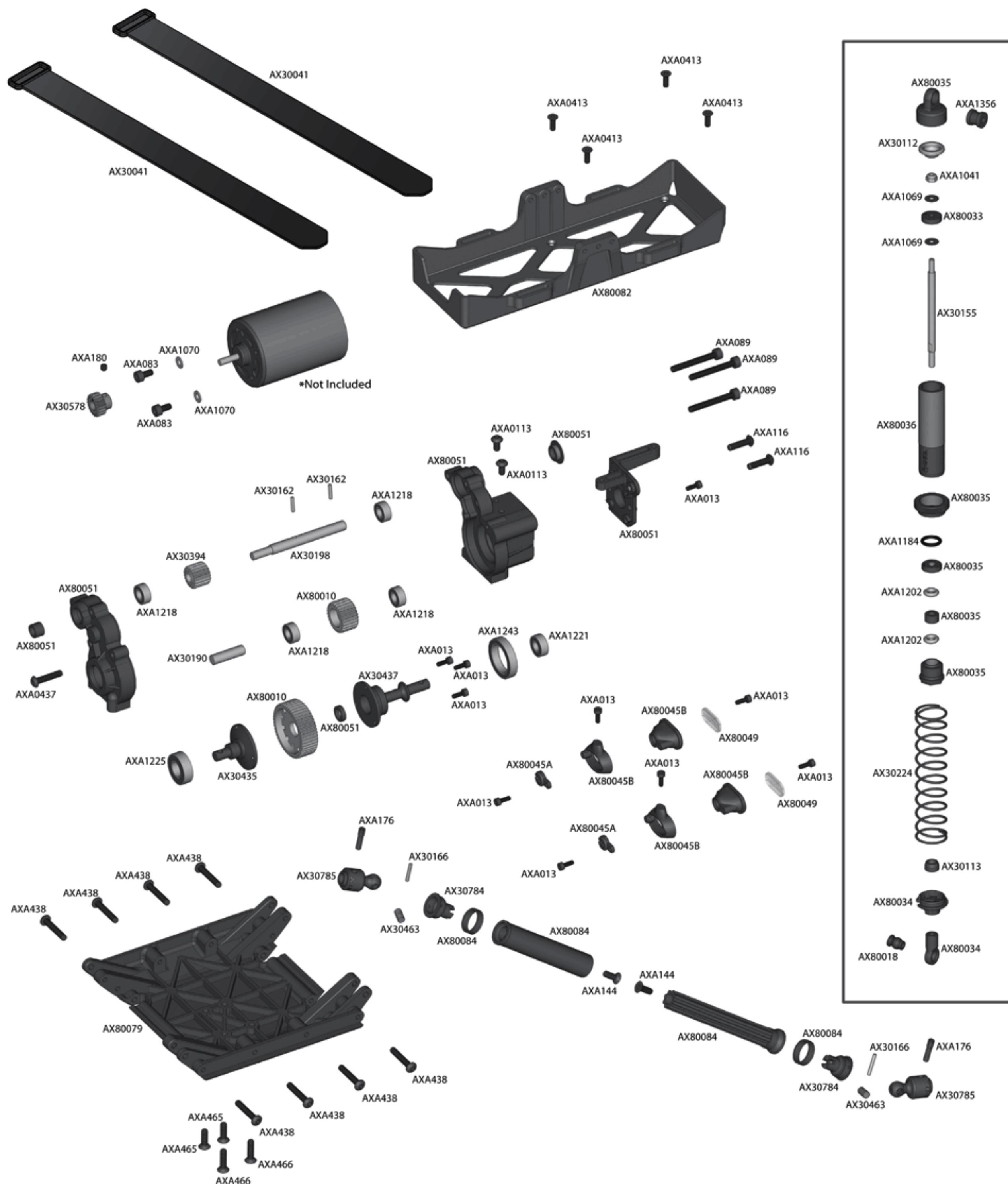
Standard

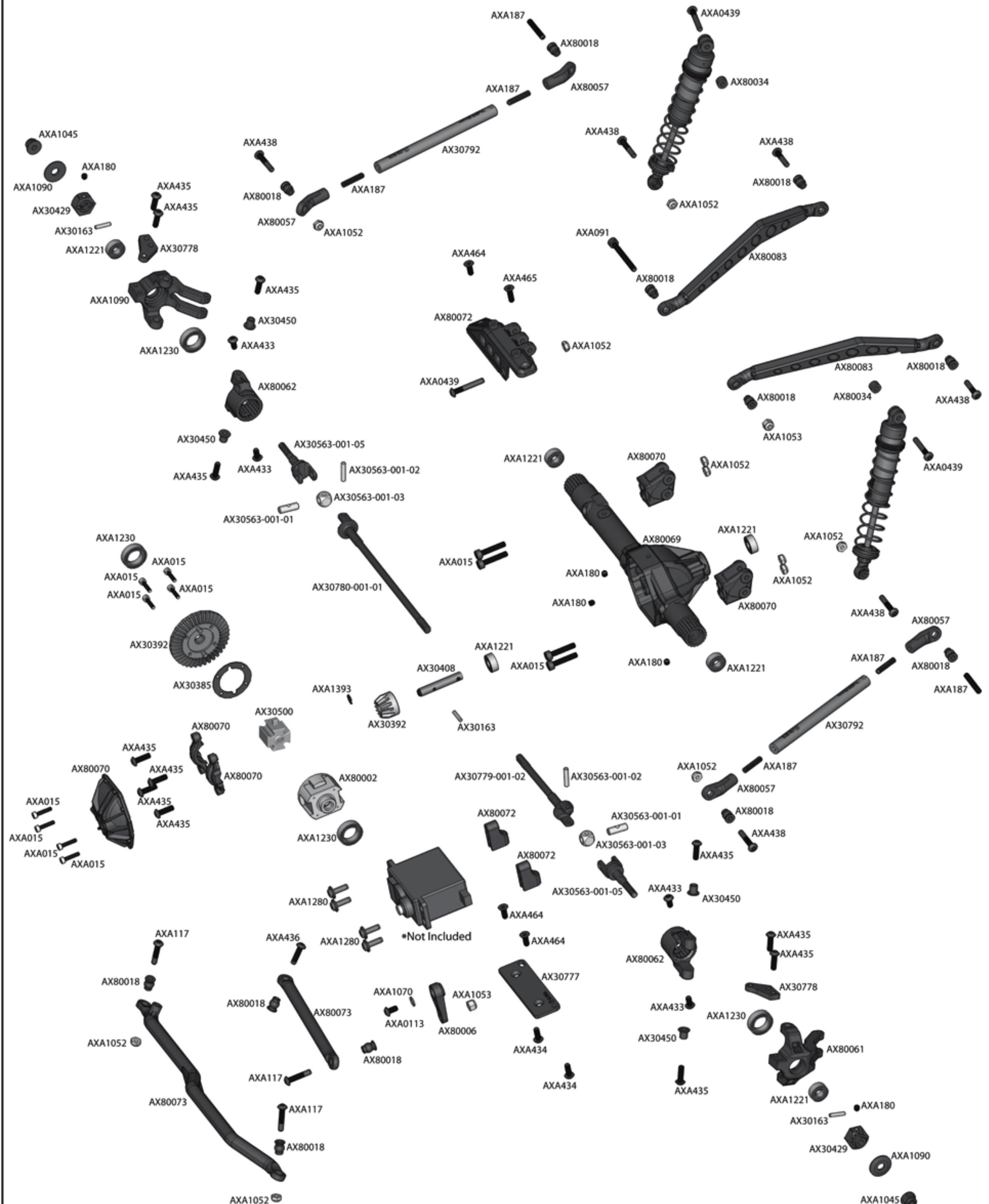


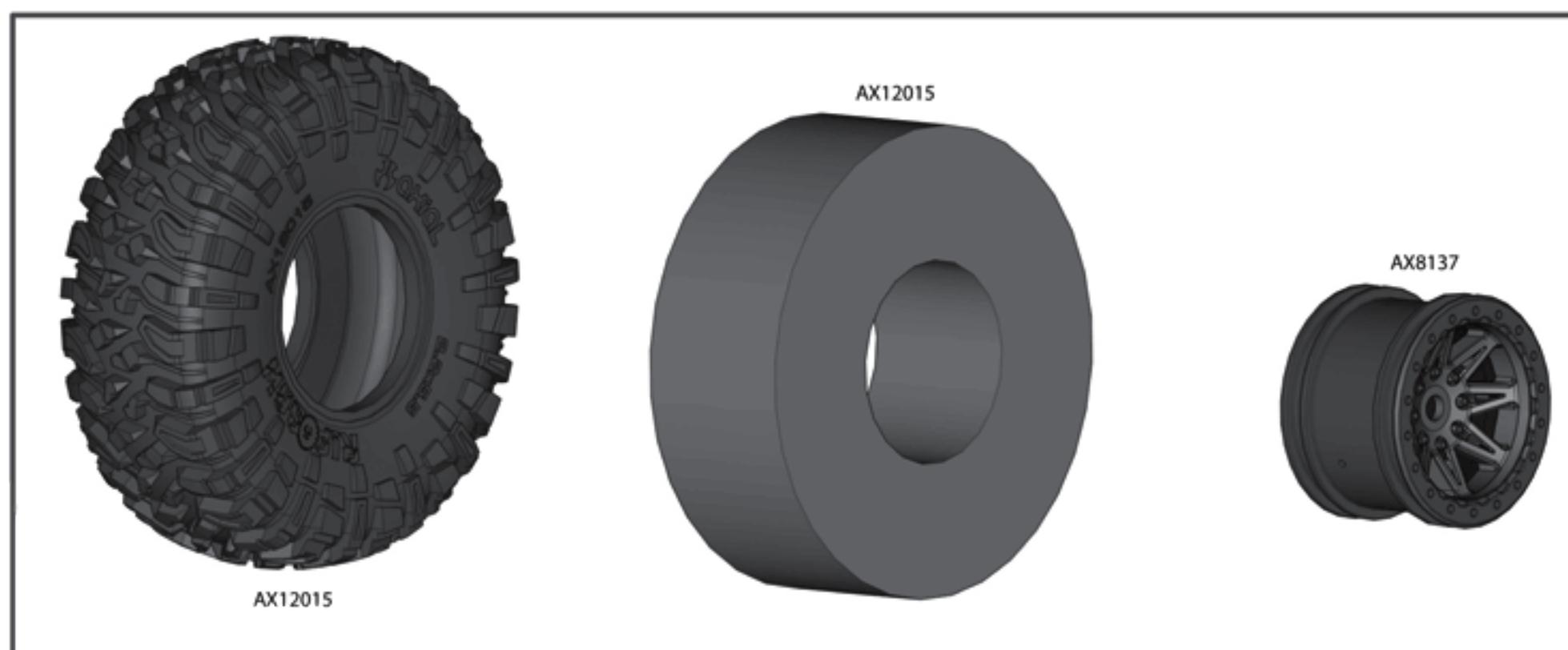
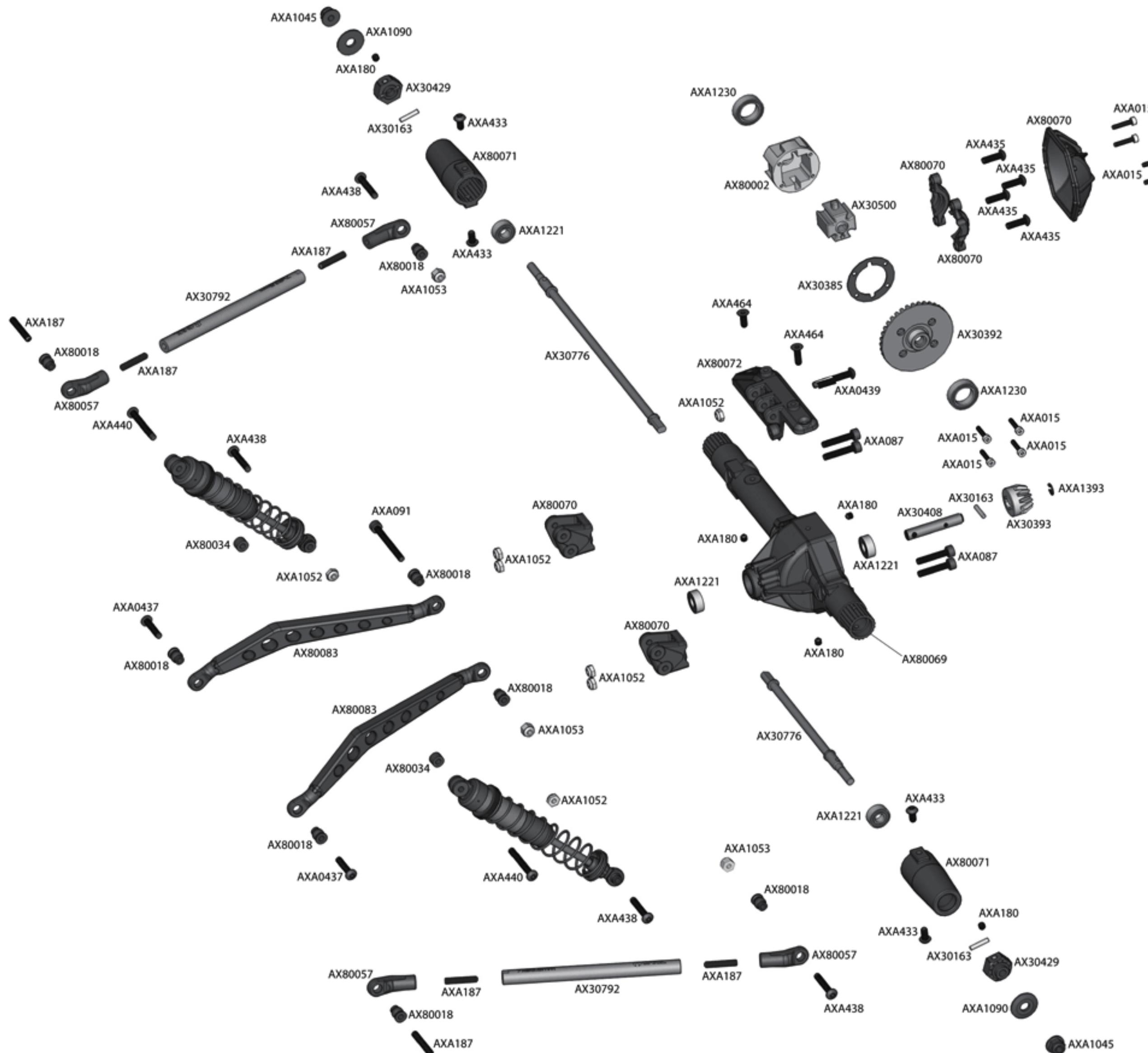
Trimmed





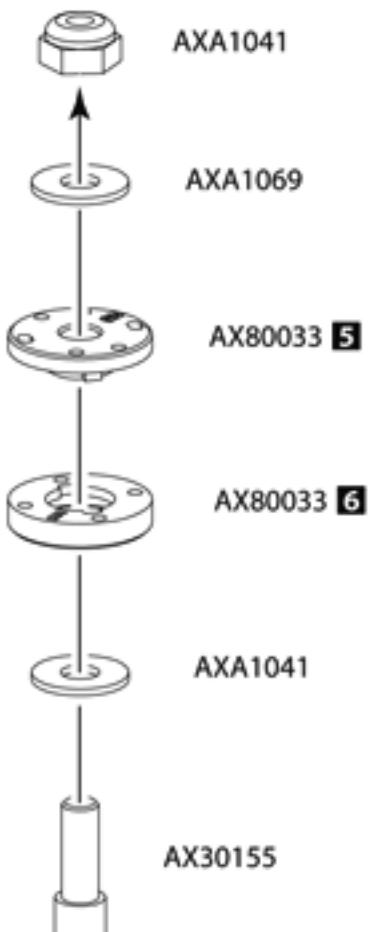






# Shock Tuning / Stossdämpferabstimmung

## Installation



## Pistons

### Standard Pistons

Provides the same dampening rate on both compression and extension

AX80033 2 Soft (2) 1.3mm holes



AX80033 Medium (3) 1.2mm holes



AX80033 4 Firm (3) 1.1mm holes



Less  
Dampening  
More

### Variable Rate Pistons

Provides a different dampening rate depending on which direction you install.

AX80033 5



AX80033 6



AX80033 5

AX80033 6

Install this direction for faster rebound and slower compression

AX80033 6

AX80033 5

Install this direction for Slower rebound and faster compression

## Springs/Oil



### Springs

Depending on the application you may want a firmer spring than what is included. Selecting a spring rate is based on each vehicles weight and handling and usually will require some trial and error.

For rock crawling applications it is recommended to use a stiffer spring on which ever corner is exhibiting torque twist.

## Oil

Oils are another element you can use to tune the handling of your vehicle. You want an oil that allows the vehicle to handle the terrain well, but not too thin as to exhibit a springy bounce while driving.

We recommend starting with a good 30 wt. silicone oil. If you are looking for a faster rebound/compression rate use a lower weight oil. If you are looking for a slower rebound compression rate use a higher weight oil.

**10wt.**

Faster ← Dampening → Slower

**100wt.**

## Parts List

Part #	Description	Part #	Description
AX04027	Wraith Body - .040" (Clear)	AX30777	56x17mm Servo Plate
AX04028	Wraith Interior Set - .040" (Clear)	AX30778	Zero Ackerman Steering Plate (2pcs)
AX08135	2.2 Raceline Renegade Wheels - 41mm Wide (Black) (2pcs)	AX30780	AR60 OCP Universal Axle Set
AX12015	2.2 Ripsaw Tires - R35 Compound (2pcs)	AX30784	WB8 Driveshaft Coupler Set
AX30031	Antenna	AX30792	Threaded Aluminum Link 7x87.5mm - Grey (2pcs)
AX30041	Velcro Strap 15x160mm	AX80002	Diff Case -Small
AX30112	Shock Diaphragm 13x4.5mm (6pcs)	AX80006	Servo Set
AX30113	Rubber Bump Stop 3.6x7x4 (6pcs)	AX80010	Gear Set
AX30155	Shock Shaft 3x59.5 (2pcs)	AX80018	Hardware Parts Tree
AX30162	Pin 1.5x8mm (6pcs.)	AX80033	10mm Shock Parts Tree 1
AX30163	Pin 2.0x10mm (6pcs.)	AX80034	10mm Shock Parts Tree 2
AX30166	Pin 1.5x11mm (6pcs)	AX80035	10mm Shock Caps Parts Tree
AX30190	Shaft 5x18 (2pcs.)	AX80036	72-103mm Shock Body
AX30198	Slipper Drive Gear Shaft 5x53.5	AX80037	Interior Details Parts Tree - Black
AX30224	Spring 14x70mm 1.43 lbs/in - Purple (2pcs)	AX80045	Axial Light Bucket Set (Black)
AX30385	Diff Gasket 16x25x0.5mm (2pcs)	AX80049	Axial LED Lens Set - Yellow/Clear (4pcs)
AX30392	Bevel Gear Set (38/13)	AX80051	Dig Transmission Case
AX30394	20T Drive Gear	AX80057	XR10 Linkage Set
AX30408	Input Shaft 5x29mm (2pcs)	AX80061	XR10 Steering Knuckles Set
AX30410	Inner Slipper Plate	AX80062	XR10 C Hub Carrier Set
AX30411	Outer Slipper Plate	AX80069	AR60 OCP Axle Housing
AX30412	Slipper pad 27x8x1mm	AX80070	AR60 OCP Differential Cover
AX30413	Slipper spring 8.5x12 165 lbs/in - Black (2pcs)	AX80071	AR60 OCP Straight Axle Adapter
AX30429	12mm Aluminum Hub (Black) (4pcs)	AX80072	AR60 OCP 4-Link Mount
AX30435	Steel Outdrive Shaft Set (2pcs)	AX80073	AR60 OCP Steering Link
AX30437	Dig Lockout Shaft	AX80074	Wraith Tube Frame Rails
AX30450	Flange Pipe 3x4.5x5.5 (4pcs)	AX80075	Wraith Tube Frame Top
AX30463	WB8 Universal Joint Rebuild Kit (2pcs)	AX80076	Wraith Tube Frame Shock Mount (Rear)
AX30491	AX10 RTR Motor Plate	AX80077	Wraith Tube Frame Bumper
AX30500	Heavy Duty Locker (2pcs)	AX80078	Transmission Spur Gear Cover
AX30566	Radio Box Gasket Set (3pcs)	AX80079	Wraith Tube Frame Skid Plate/Battery Tray
AX30578	Pinion 48DP 20T	AX80081	Wraith Tube Frame Electronics Box
AX30665	Spur 48DP 80T	AX80082	Wraith Tube Frame Brace Set
AX30776	AR60 OCP Rear Axle Set (2pcs)	AX80083	Wraith Links Set

## Parts List

Part #	Description	Part #	Description
AX80084	WB8 Driveshaft	AX24253	Axial Double LED Light String (Red LED)
AX80087	Wraith Tube Frame Side (Left)	AX24254	Axial Double LED Light String (Orange LED)
AX80088	Wraith Tube Frame Side (Right)	AX24255	Axial Single LED Light String (White LED)
AX80089	Wraith Tube Frame Shock Mount (Front)	AX24256	Axial 5 LED Light String (White LED)
AX80090	Corbeau LG1 Seat (Black) (2pcs)	AX24257	Simple LED Controller w/LED lights (4 white and 2 Red)
AXA0113	M3x6mm Hex Socket Button Head (Black) (10pcs)	AX24258	4 LED String (White LED)
AXA013	M2x6 mm Cap Head (Black) (10pcs)	AX24259	Axial AE-2 Forward/Reverse ESC w/Drag Brake
AXA015	M2x10mm Cap Head (Black) (10pcs)	AX30092	Axial 72-103mm Shock Set - 10mm Piston (2pcs)
AXA0175	Screw Shaft M3x2.5x11mm (10pcs)	AX30110	Axial Aluminum 13mm Aluminum Preload Collar (2pcs)
AXA0187	M3x20mm Set Screw (Black) (10pcs)	AX30111	Axial Aluminum Shock Cap (2pcs)
AXA0412	M2.6x6mm Hex Socket Tapping Flat Head (Black) (10pcs)	AX30120	Axial Aluminum Shock Body 12x47.5mm (2pcs)
AXA0413	M2.6x8mm Hex Socket Tapping Flat Head (Black) (10pcs)	AX30219	Spring 14x70mm 2.47 lbs/in - Soft (White) (2pcs)
AXA0414	M2.6x10mm Hex Socket Tapping Flat Head (Black) (10pcs)	AX30220	Spring 14x70mm 2.85 lbs/in - Medium (Green) (2pcs)
AXA0416	M2.6x18mm Hex Socket Tapping Flat Head (Black) (10pcs)	AX30221	Spring 14x70mm 3.27 lbs/in - Firm (Yellow) (2pcs)
AXA0422	M2.6x6mm Hex Socket Tapping Button Head (Black) (10pcs)	AX30222	Spring 14x70mm 3.55 lbs/in- Super Firm (Blue) (2pcs)
AXA0437	M3x15mm Hex Socket Tapping Button Head (Black) (10pcs)	AX30223	Spring 14x70mm 1.04 lbs/in - Black (2pcs)
AXA0439	M3x20mm Hex Socket Tapping Button Head (Black) (10pcs)	AX30224	Spring 14x70mm 1.43 lbs/in - Purple (2pcs)
AXA083	M3x6mm Cap Head (Black) (10pcs)	AX30225	Spring 14x70mm 1.75 lbs/in - Orange (2pcs)
AXA087	M3x16mm Cap Head (Black) (10pcs)	AX30395	Heavy Duty Bevel Gear Set
AXA089	M3x25mm Cap Head (Black) (10pcs)	AX30438	Axial Delrin 10mm Machined Piston - 1.2 (4pcs)
AXA091	M3x30mm Cap Head - Black (10pcs)	AX30569	Pinion 48P 14T – Steel
AXA1040	M3 Thin Hex Nut (Black) (10pcs)	AX30571	Pinion 48P 13T – Steel
AXA1041	M2.5 Nylon Locking Hex Nut - Silver (10pcs)	AX30572	Pinion 48DP 14T
AXA1045	M4 Nylon Lock Nut (Black) (10pcs)	AX30573	Pinion 48P 15T – Steel
AXA1052	M3 Thin Nylon Locking Hex Nut (Black)	AX30672	Spurs 48DP 8T
AXA1053	M3 Nylon Locking Hex Nut (Black) (10pcs)	AX30760	XR10 Aluminum Steering Knuckle (Black) (2pcs)
AXA1069	Washer 2.7x6.7x0.5 (10pcs)	AX30762	XR10 Aluminum C-Hub Carrier (Black) (2pcs)
AXA1070	Washer 3x6x0.5 (10pcs)	AX30781	Front Sway Bar Set
AXA1071	Washer 4x8x0.5mm (10pcs)	AX30782	Rear Sway Bar Set
AXA1090	Washer 4x8x14mm (Black) (10pcs)	AX30786	Aluminum Driveshaft Ring
AXA1091	Washer 5x10x.5 (Black) (10pcs)	AX30789	Aluminum Straight Axle Adapter (2pcs)
AXA116	M3x12mm Hex Socket Button Head - Black (10pcs)	AX30793	Dig Upgrade Set
AXA117	M3x15mm Hex Socket Button Head (Black) (10pcs)	AX80080	Corbeau LG1 Seat (Grey) (2pcs)
AXA118	M3x18mm Hex Socket Button Head - Black (10pcs)	AX8091	Axial 2.2 Rockster Beadlocks (Black)
AXA1184	O-Ring 7.5x1.5mm (S8) - (10pcs)	AX8092	Axial 2.2 Rockster Beadlocks (Chrome)
AXA1202	O-Ring 3.5x2mm (10pcs)	AX8095	Axial 2.2 Rockster Beadlocks (Black Chrome)
AXA1218	Bearing 5x10x4mm (2pcs)	AX8097	2.2 8 Hole Beadlocks (Black)
AXA1221	Bearing 5x11x4mm (2pcs)	AX8098	2.2 8 Hole Beadlocks (Satin Chrome)
AXA1225	Bearing 8x16x5mm (2pcs)	AX8107	2.2 Beadlock Ring - Orange (2pcs)
AXA1230	Bearing 10x15x4mm	AX8108	2.2 Beadlock Ring - Green (2pcs)
AXA1243	Bearing 15x21x4mm (2pcs)	AX8110	2.2 Beadlock Ring - Blue (2pcs)
AXA1280	M3x10mm Servo Flange Screw (10pcs)	AX8113	2.2 Rock Beadlock Ring - Green (2pcs)
AXA1356	Silicone Shock Bushing 7.5x8mm (6pcs)	AX8117	2.2 Rock Beadlock Ring - Grey (2pcs)
AXA1393	E2.5 e-clip (10pcs)	AX8118	2.2 Rock Beadlock Ring - Orange (2pcs)
AXA144	M3x8mm Hex Socket Flat Head (Black) (10pcs)	AXA1105	Cone Washer 3x6.9x2mm - Grey (6pcs)
AXA180	M3x3mm Set Screw (Black) (10pcs)	AXA1331	Flanged Ball 3x5.8x7mm (6pcs)
AXA433	M3x6mm Hex Socket Tapping Button Head - Black (10pcs)	AXA1412	0.5x6mm Spacer - Grey (6pcs)
AXA434	M3x8mm Hex Socket Tapping Button Head (Black) (10pcs)	AXA1413	1x6mm Spacer - Grey (6pcs)
AXA435	M3x10mm Hex Socket Tapping Button Head (Black) (10pcs)	AXA1414	2x6mm Spacer - Grey (6pcs)
AXA436	M3x12mm Hex Socket Tapping Button Head (Black) (10pcs)	AXA1415	3x6mm Spacer - Grey (6pcs)
AXA438	M3x18mm Hex Socket Tapping Button Head (Black) (10pcs)	AXA1416	4x6mm Spacer - Grey (6pcs)
AXA440	M3x25mm Hex Socket Tapping Button Head (Black) (10pcs)	AXA1417	5x6mm Spacer - Grey (6pcs)
AXA441	M3x30mm Hex Socket Tapping Button Head (Black) (10pcs)	AXA1418	6x6mm Spacer - Grey (6pcs)
AXA463	M3x6mm Hex Socket Tapping Flat Head (Black) (10pcs)	AXA1419	7x10mm Post - Grey (2pcs)
AXA464	M3x8mm Hex Socket Tapping Flat Head (Black) (10pcs)	AXA1420	7x15mm Post - Grey (2pcs)
AXA465	M3x10mm Hex Socket Tapping Flat Head (Black) (10pcs)	AXA1421	7x20mm Post - Grey (2pcs)
AXA466	M3x12mm Hex Socket Tapping Flat Head (Black) (10pcs)	AXA1422	7x25mm Post - Grey (2pcs)
		AXA1423	7x30mm Post - Grey (2pcs)
		AXA1424	7x35mm Post - Grey (2pcs)
		AXA1425	7x40mm Post - Grey (2pcs)
		AXA1426	7x45mm Post - Grey (2pcs)
		AXA1427	7x50mm Post - Grey (2pcs)
		AXA1428	7x55mm Post - Grey (2pcs)
		AXA1429	7x60mm Post - Grey (2pcs)
		AXA1430	7x65mm Post - Grey (2pcs)
		AXA1431	7x70mm Post - Grey (2pcs)

### Option Parts

AX08061	2.2 VWS Beadlock Wheels (Black) (2pcs) (Fits XR10)
AX08069	2.2 VWS Beadlock Rings (Black) (2pcs)
AX08132	2.2 VWS Machined Beadlock Rings (Orange) (2pcs)
AX08133	2.2 VWS Machined Beadlock Ring (Grey) (2pcs)
AX08137	2.2 Raceline Renegade Wheels - 41mm Wide (Chrome/Black) (2pcs)
AX24003	Axial 20T Electric Motor
AX24004	Axial 27T Electric Motor
AX24007	Axial 55T Electric Motor
AX24204	Axial 2.4Ghz Radio System (2 Channel)
AX24251	Axial NVS - Night Visions System
AX24252	Axial Double LED Light String (White LED)
AX24253	Axial Double LED Light String (Red LED)

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