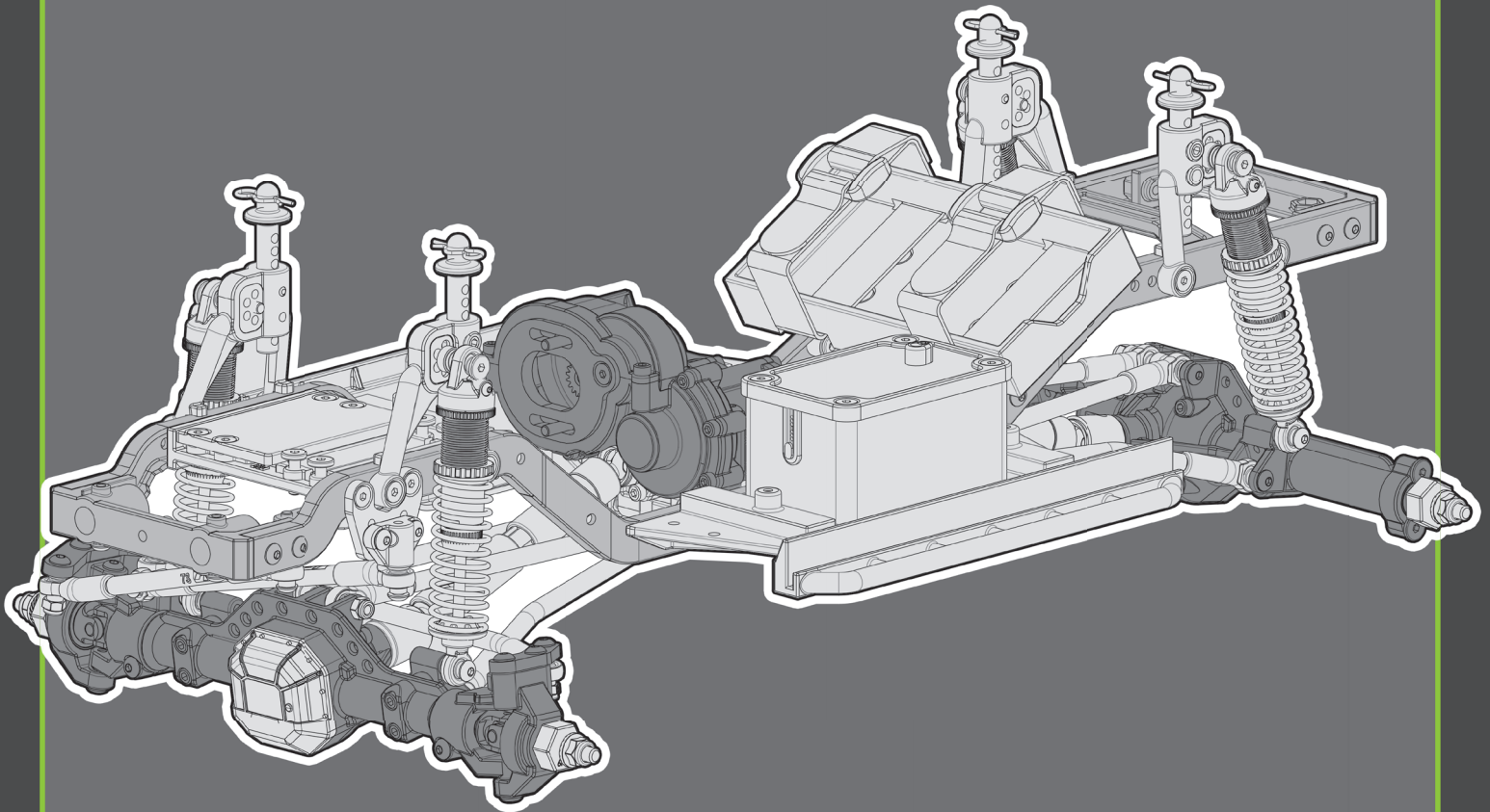


# ENDURO

## BUILDER'S KIT 3



# OWNERS BUILD MANUAL





**Associated Electrics, Inc.**  
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**Your journey begins here.**



## INTRODUCTION

Thank you for purchasing this Element RC product. This assembly manual contains instructions and tips for building and maintaining your new Enduro chassis. Please take a moment to read through this manual to help familiarize yourself with these steps. We are continually changing and improving our designs; therefore, actual parts may appear slightly different than in the illustrations. New parts will be noted on supplementary sheets located in the appropriate parts bags.

## ENDURO BUILDER'S KIT 3

**Aluminum track bar mount:** The GKS aluminum track bar mount bolted directly to the steel frame rail makes the front suspension more rigid and flex-free with a more precise steering feel.

**Shock mount inserts:** GKS shock mount inserts provide drivers with the ability to tune shock angle, droop, and vehicle ride height without affecting spring preload.

**Factory Team shocks:** For ultra-smooth performance and looks, our machined aluminum threaded bronze-anodized shocks with black plastic caps with bleeder screws.

**12.3" and 12.8" wheelbase high-clearance links:** With an updated look, our 5mm heavy-duty links are black nitrate-coated, with FT logo and length etched right on them for easy reference.

**Factory Team steel wheel hexes:** Steel wheel hexes (12x6mm) add weight down low and provides a strong solid mount for your favorite plastic or aluminum wheels.

**Factory Team Steel pivot balls:** They provide a smoother, longer-lasting suspension.

**Factory Team High Clearance Links: (HC)** geometry, made from high strength steel, nickel plated with a secondary black treatment and Laser-etched FT logo and link lengths

**Stealth XF gearbox with adjustable overdrive gears:** At the heart of the Enduro is our revolutionary Stealth XF gearbox. Forward-mounted motor and features the ability to adjust the rear drive ratio independently of the front drive in 3 levels. Stock overdrives the front end 5.7%, option 1 (requires gearing sold separately) provides a one-to-one drive ratio front to rear, and option 2 overdrives the front end 11.83%.

**Factory Team Slipper Lockout:** Aluminum locking plates to eliminate the slipper assembly.

**Updated axles:** Updated axles feature a larger input bearing size for increased durability.

## ITEMS NEEDED

The following items are required to build or maintain your Enduro Trail Truck.

- 1.5mm Allen Wrench (#1500)
- 2mm Allen Wrench (#1501)
- 2.5mm Allen Wrench (#1503)
- Pliers
- Long Nose Pliers
- 5.5mm Nut Driver (#1507)
- 7mm Nut Driver (#1508)

## OTHER HELPFUL ITEMS

The following items aren't required, but will aid in the building and maintaining of your Enduro Trail Truck.

- Threadlock (#1596)
- Green Slime (#1105)

## FEATURES

### CHASSIS FEATURES:








Solid axle front suspension  
 Universal front drive axles  
 One-piece rear axle design  
 Behind-the-axle (BTA) steering  
 Aluminum steering plates  
 Integrated servo winch mount  
 CMS (Chassis Mounted Servo)  
 Stamped steel frame rails  
 Adjustable bumper mounts  
 Enclosed water-resistant receiver box  
 Injection-molded adjustable width rock sliders  
 Threaded aluminum shock bodies  
 Aluminum motor plate  
 Optimized ball cups for more fluid axle articulation  
 Telescopic driveshafts front and rear  
 Extruded aluminum driveshaft splines  
 5mm heavy duty FT high clearance links  
 Machined input pinion gear

Metal ring gear  
 Machined steel top shaft  
 Metal ball bearings included  
 Steel 25T servo horn

















# HARDWARE 1:1 SCALE VIEW

HARDWARE USED WITH OPTIONAL REPLACEMENT PART NUMBERS





## FLAT HEAD SCREWS (FHCS)

	2.5x10mm (31350)
	2.5x14mm (41077)
	3x6mm (31541)
	3x8mm (25201)
	3x10mm (25202)
	3x12mm (25203)
	3x14mm (89208)








## BUTTON HEAD SCREWS (BHCS)

	2x3mm (31509)
	2.6x10mm, SelfTapping (41088)
	3x4mm (91158)
	3x5mm (31530)
	3x6mm (31531)
	3x8mm (31532)
	3x10mm (25211)
	3x12mm (89202)
	3x14mm (25187)
	3x16mm (89203)
	3x18mm (2308)
	3x20mm (25188)
	3x22mm (25189)
	3x24mm (89204)
	3x26mm (89205)
	3x28mm (41078)



## LP SOCKET HEAD SCREWS (LP SHCS)

	3x6mm (41089)
	3x10mm (41090)
	3x16mm (41092)
	3x20mm (41091)



## SOCKET HEAD SCREWS (SHCS)

	2x5mm (31511)
	2x8mm (7187)
	2.5x6mm (41079)
	2.5x10mm (41087)
	2.5x14mm (71032)
	2.5x16mm (41086)
	3x6mm (41089)



## SET SCREWS

	3x3mm (25225)
	3x16mm (4689)
	4x16mm (4677)

## PIVOT BALLS

	Pivot Ball, Short (42041)
	Pivot Ball, Long, Upper Shock (42041)






## LOCK NUTS

	M3 Locknuts (25215) Aluminum (31550)
	M4 Locknut W/Flange (25391)

## BEARINGS




	4x8x3mm (91568)
	5x10x4mm (91560)
	5x12x4mm (91567)
	7x14x3.5mm (91474)
	10x15x4mm (91563)

## SHIMS AND WASHERS






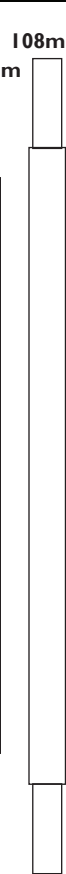

	3x7mmx1mm (42260)
	3x7mmx2mm (42260)
	3x7x3mm (42260)
	3x7x5mm (42260)
	3x7x7mm (42260)

	Drive Gear Shim (42027)
---	-------------------------

## MISC. SCREWS

	Shoulder Screw 3x4x10mm (42070)
	Screw Pin (42022)
	Pin 2x11mm (42019)

## LINKS

	73mm
	83mm
	93mm
	96mm
	100mm
	108mm
	114mm

## TABLE OF CONTENTS

8/30/2024

<b>01</b>	COVER	<b>10</b>	LINKS BUILD
<b>02</b>	INTRODUCTION	<b>13</b>	DRIVESHAFTS BUILD
<b>03</b>	1:1 HARDWARE "FOLD OUT"	<b>14</b>	SHOCKS BUILD
<b>04</b>	TABLE OF CONTENTS	<b>15</b>	BODY POSTS BUILD
<b>05</b>	STEALTH XF GEARBOX BUILD	<b>16</b>	GEARBOX CONFIGURATION
<b>06</b>	CHASSIS BUILD	<b>17</b>	TRAIL TIPS
<b>09</b>	FRONT AXLES BUILD	<b>18</b>	BACK COVER
<b>10</b>	REAR AXLE BUILD		

## USING THIS MANUAL



This symbol indicates a special note or instruction in the manual.

**x2**

This symbol indicates the number of the same part that is required.



This symbol indicates the order within a step to assemble parts.



This symbol indicates a Trail Tip.



This symbol indicates where Black Grease should be applied.



This symbol indicates where Green Slime can be applied. \*not included



This symbol indicates where Thread Lock Adhesive should be applied. \*not included



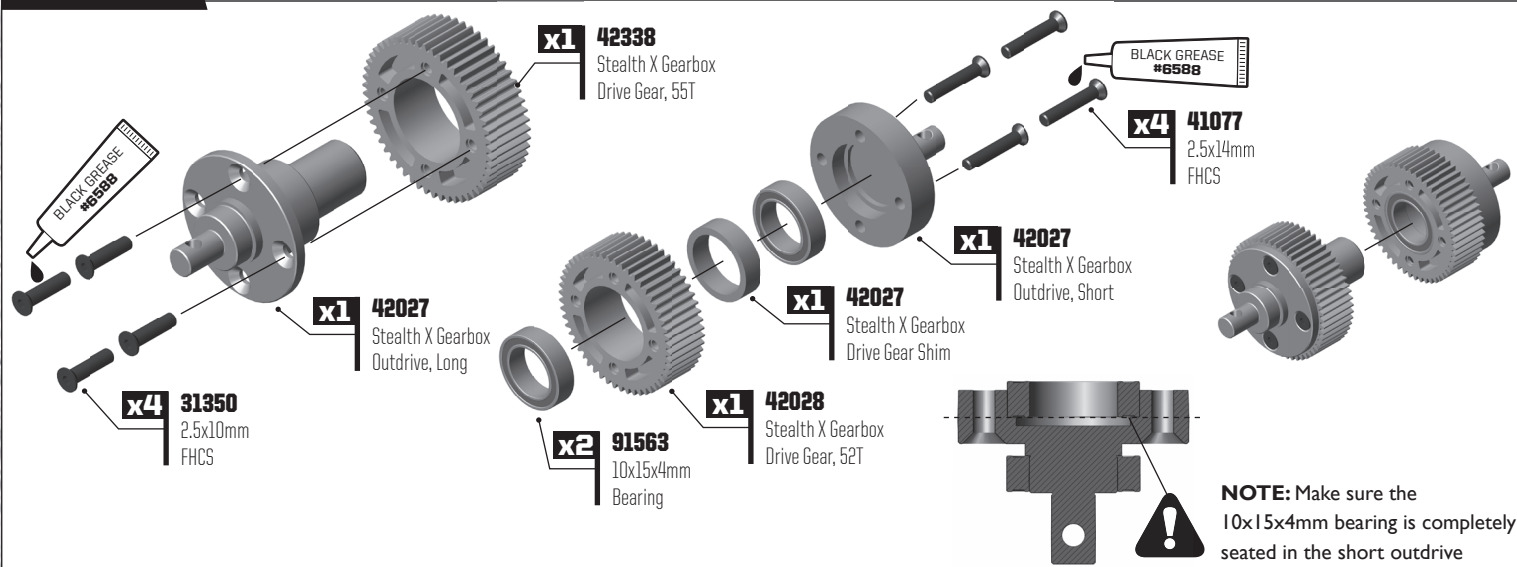
This symbol indicates where Shock Fluid should be applied.



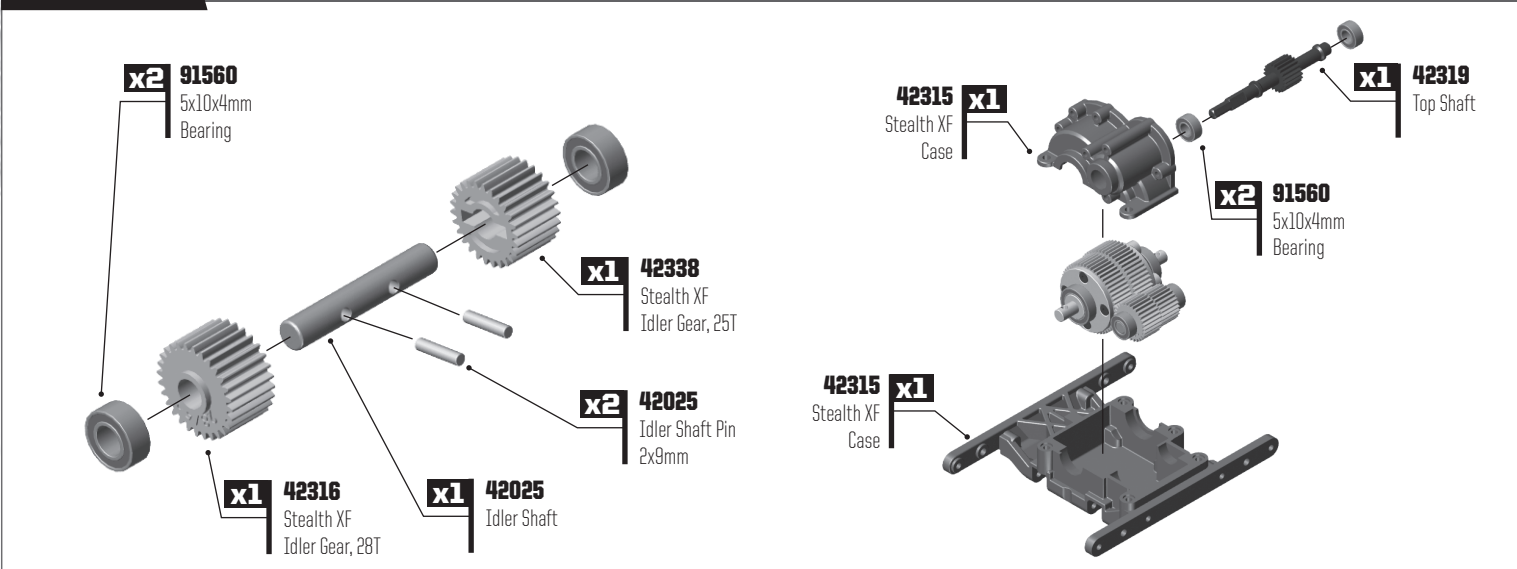
There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardware with the correct drawing until you find the exact size. Each part in the foldout has a number assigned to it for ordering replacement parts.



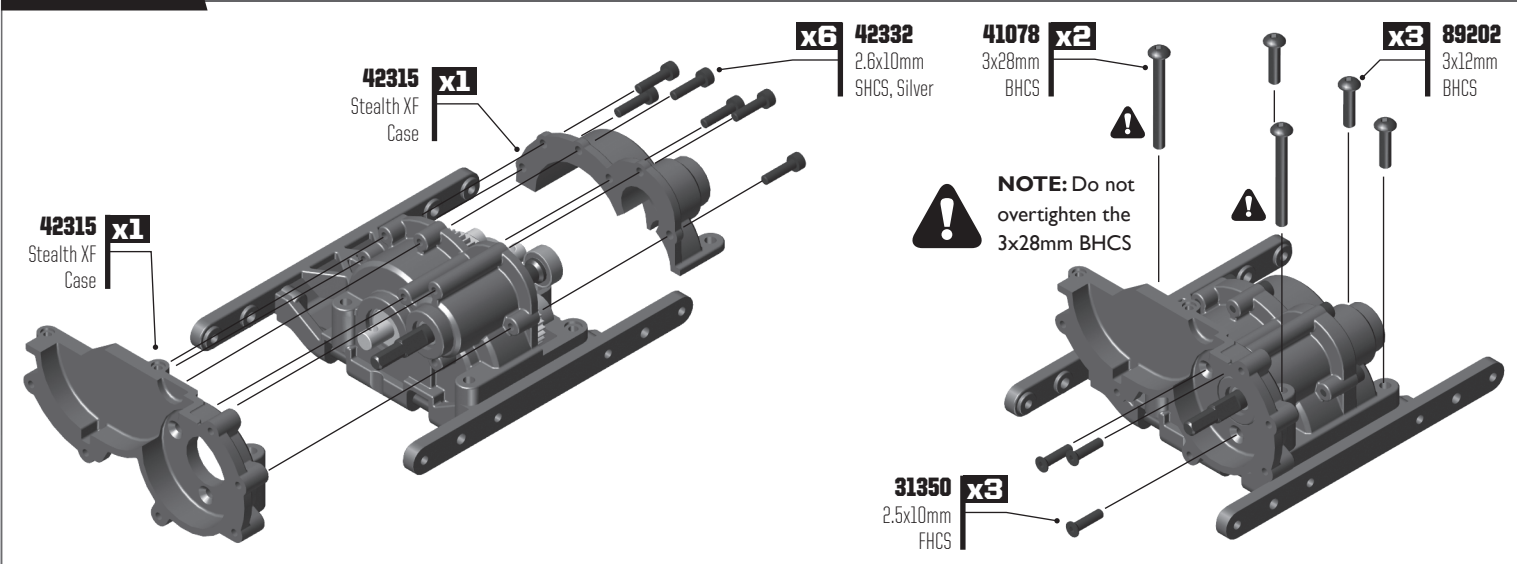
## GATE 01 STEALTH XF BUILD



## GATE 02 STEALTH XF BUILD

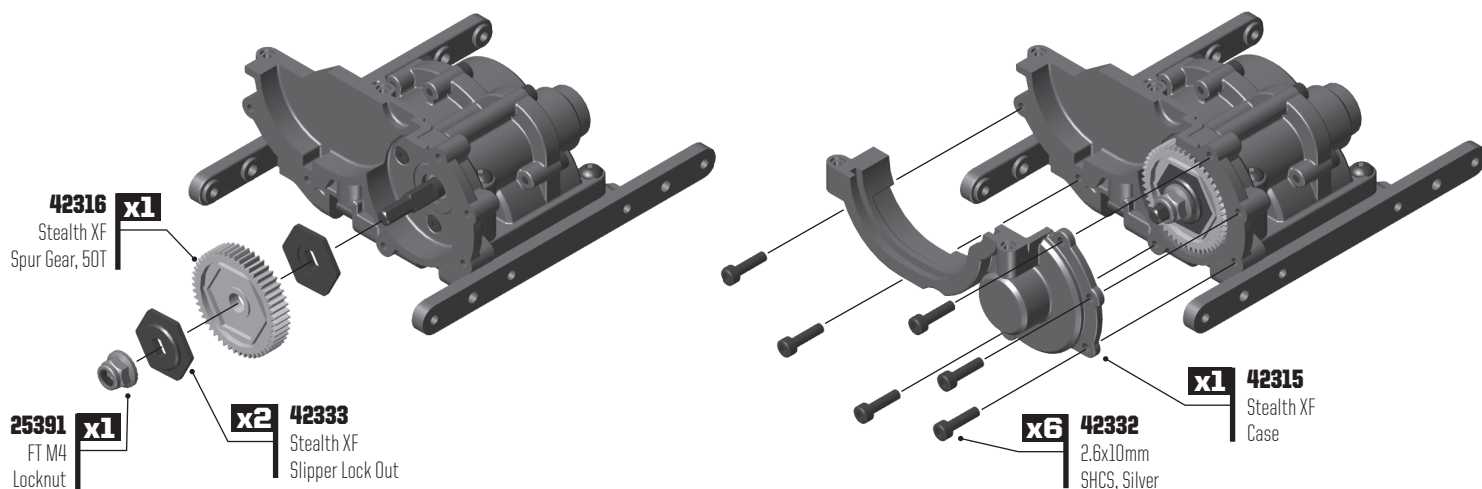


## GATE 03 STEALTH XF BUILD



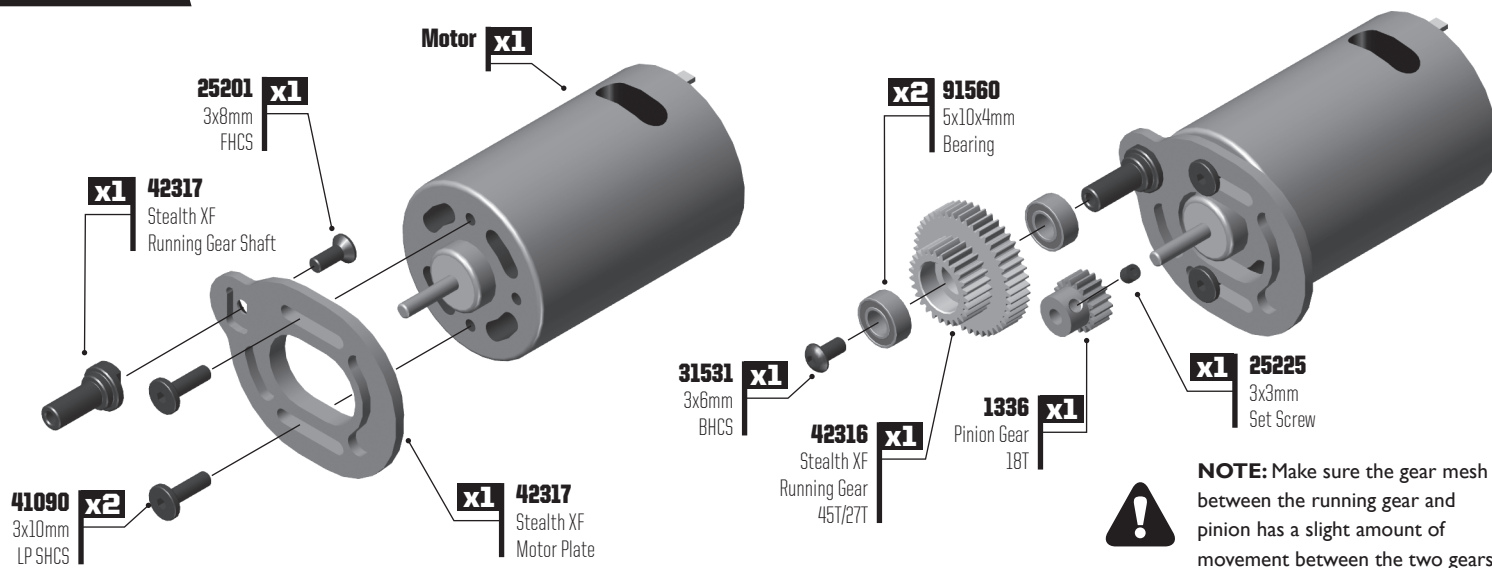
## GATE 04

## STEALTH XF BUILD



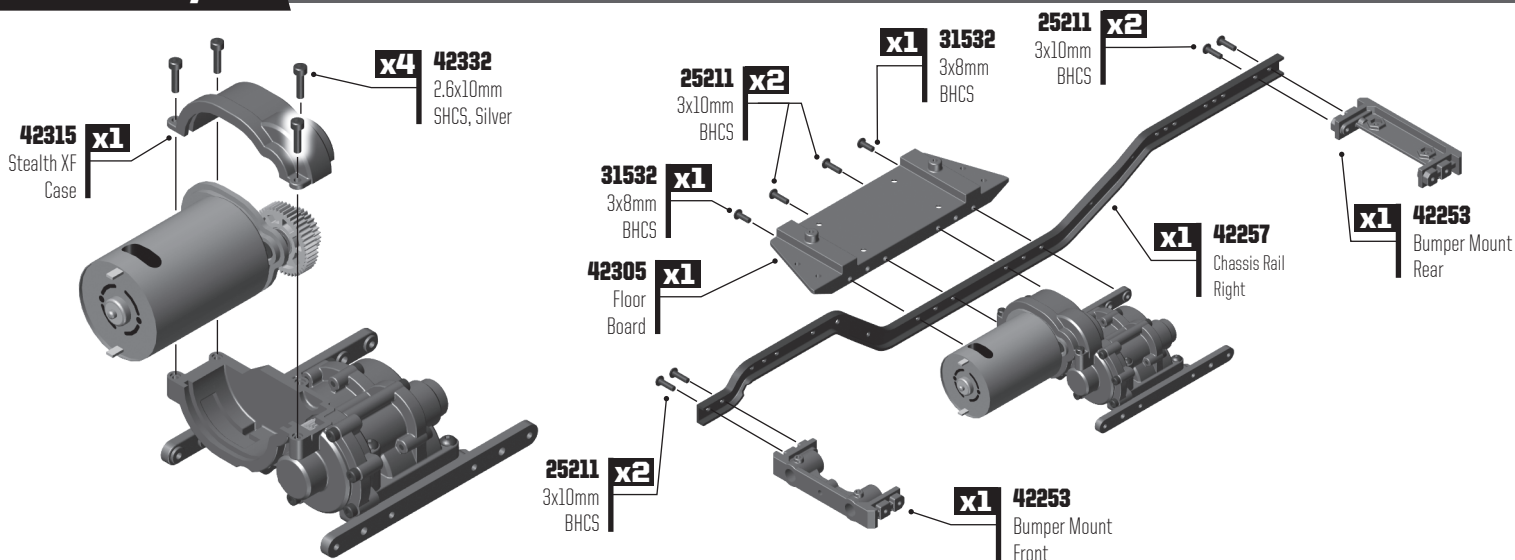
## GATE 05

## STEALTH XF BUILD



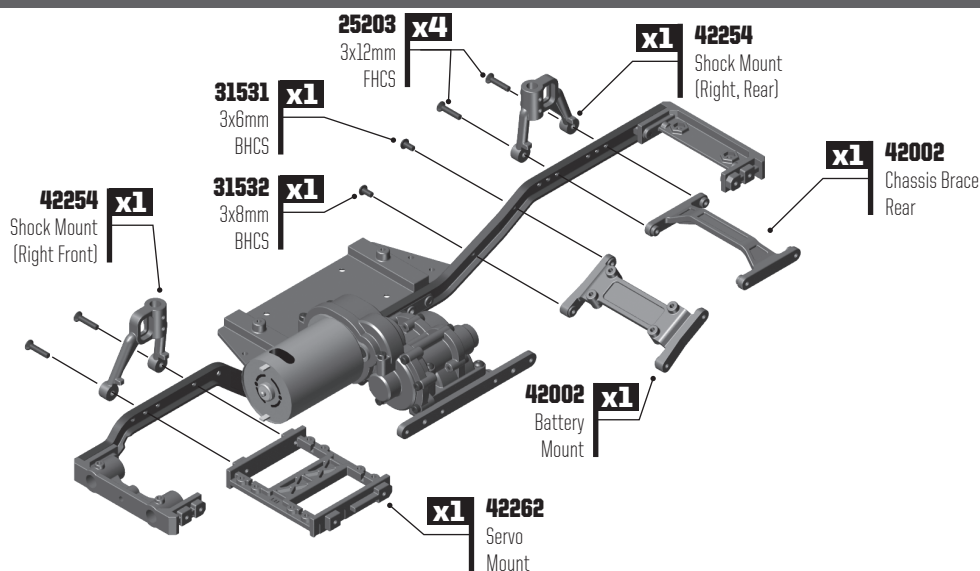
## GATE 06 / 01

## STEALTH XF BUILD / CHASSIS BUILD



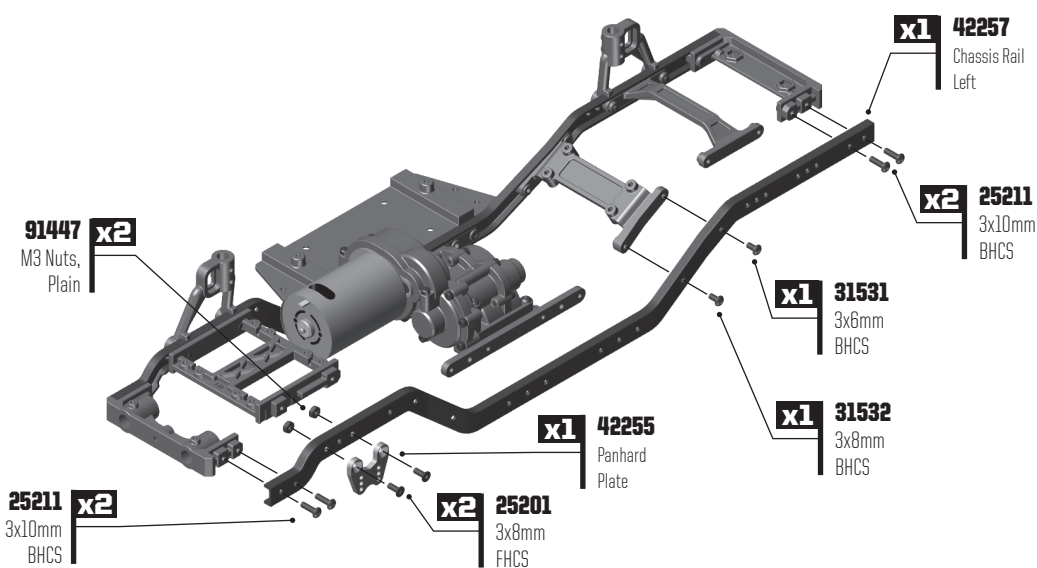
## GATE 02

### CHASSIS BUILD



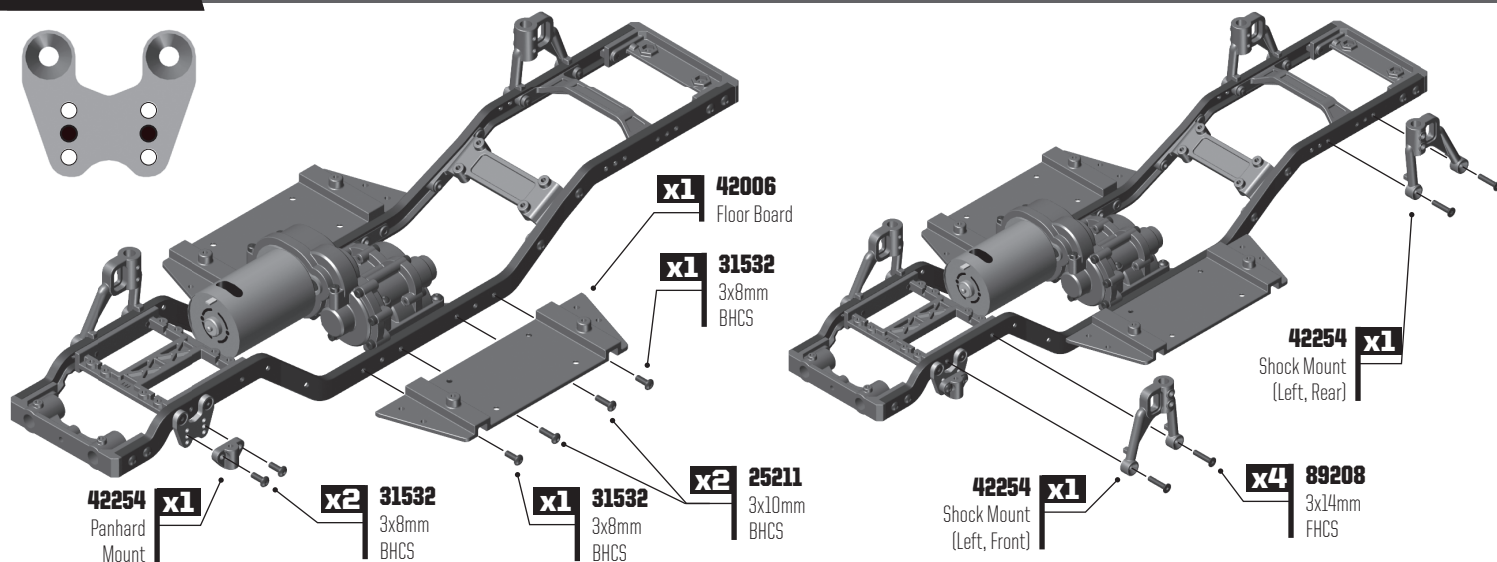
## GATE 03

### CHASSIS BUILD



## GATE 04

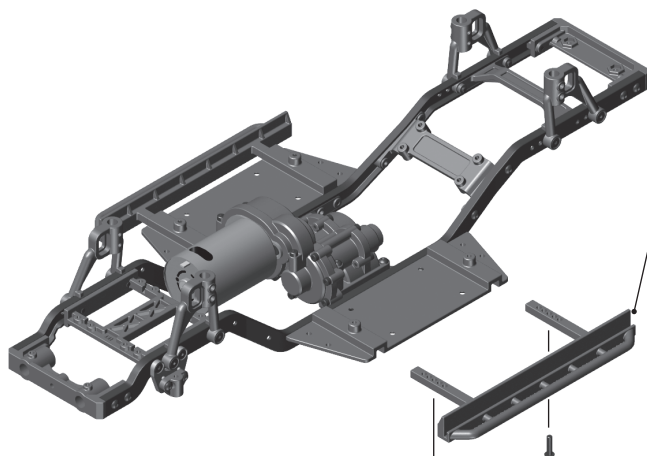
### CHASSIS BUILD





## GATE 05

## CHASSIS BUILD



**x1** 42245  
Trailrunner  
Rock Slider

**89202** **x2**  
3x12mm  
BHCS



**NOTE:** Install Left and  
Right side Rock Sliders

## GATE 06

## CHASSIS BUILD

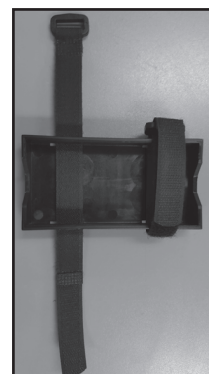
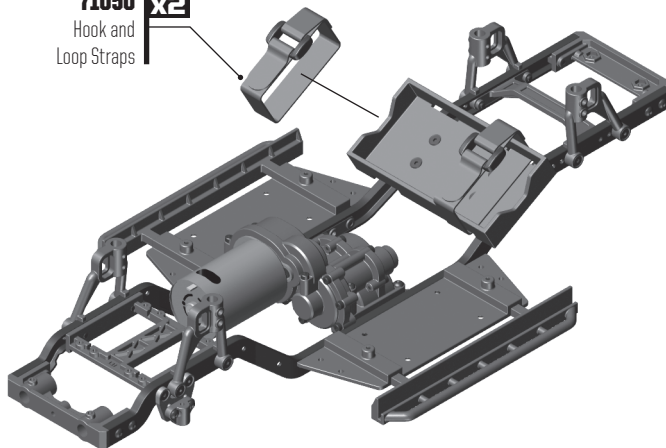
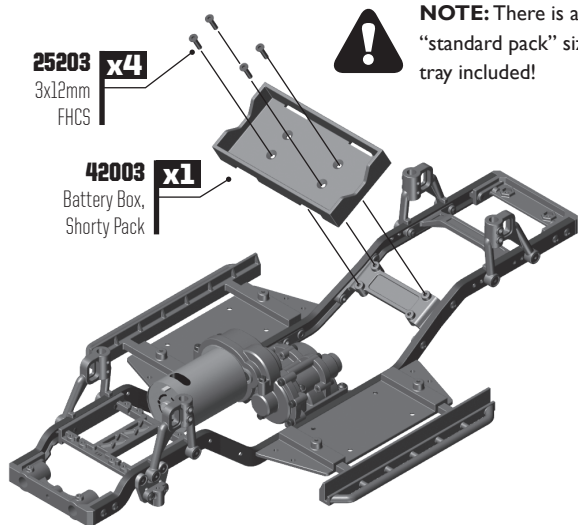
**25203** **x4**  
3x12mm  
FHCS

**42003** **x1**  
Battery Box,  
Shorty Pack



**NOTE:** There is an optional  
"standard pack" sized battery  
tray included!

**71050** **x2**  
Hook and  
Loop Straps



## GATE 07

## CHASSIS BUILD

**31541** **x4**  
3x6mm  
FHCS

**42253** **x1**  
Servo Plate

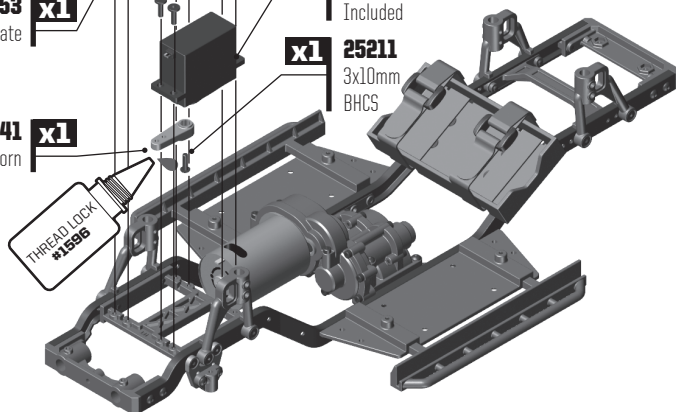
**42041** **x1**  
Servo Horn

**x4** 41090  
3x10mm  
LP SHCS

**x1** Servo  
\*Not  
Included

**x1** 25211  
3x10mm  
BHCS

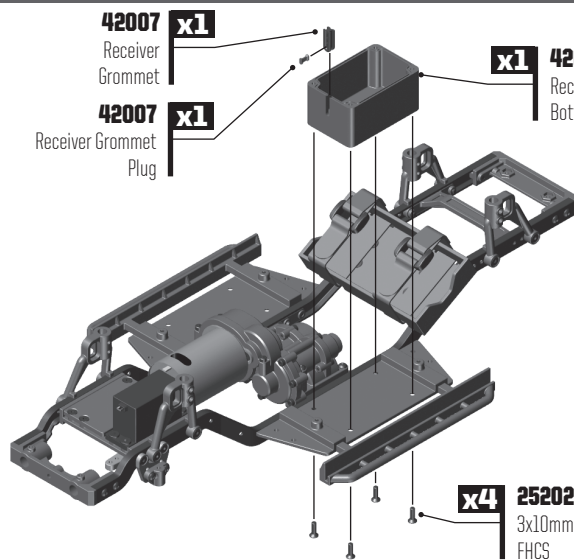
THREAD LOCK  
#1595



**42007** **x1**  
Receiver  
Grommet

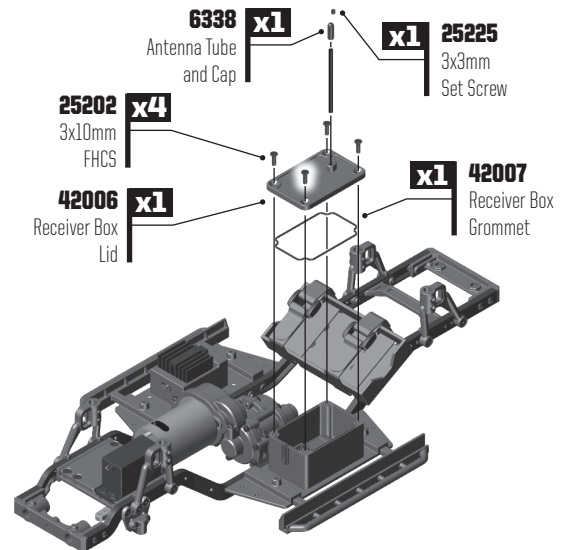
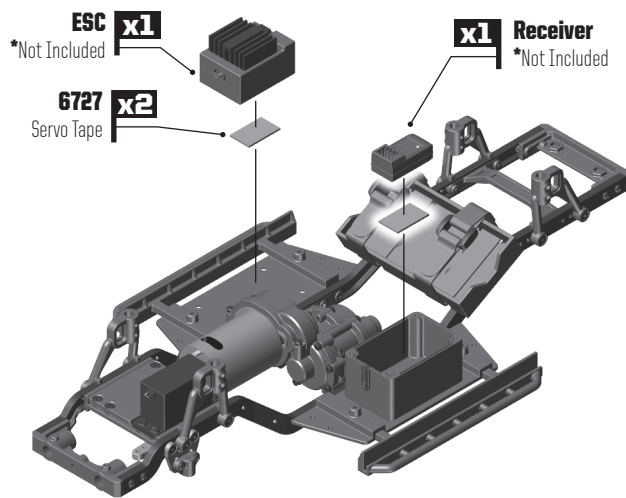
**42007** **x1**  
Receiver Grommet  
Plug

**x1** 42006  
Receiver Box  
Bottom

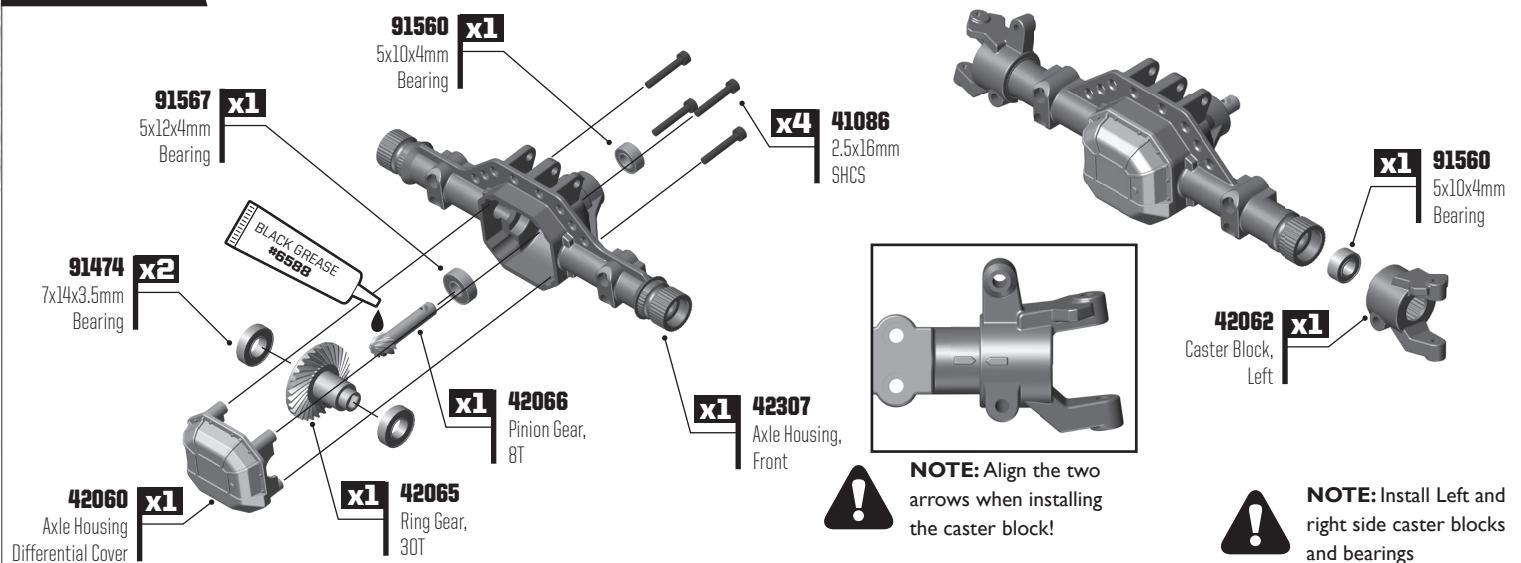


**x4** 25202  
3x10mm  
FHCS

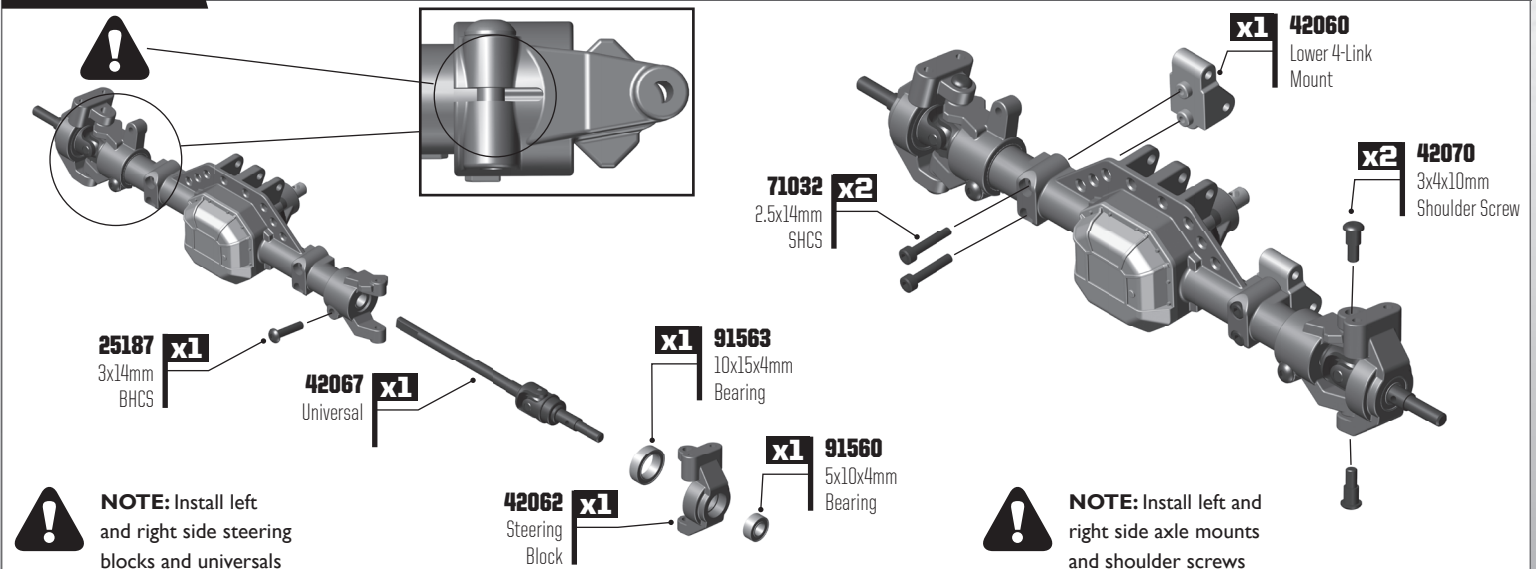
## GATE 08 CHASSIS BUILD



## GATE 01 FRONT AXLE BUILD

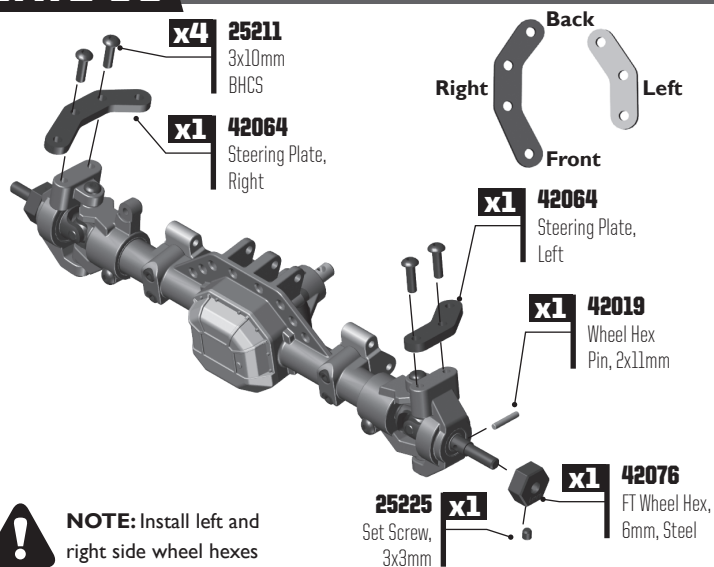


## GATE 02 FRONT AXLE BUILD

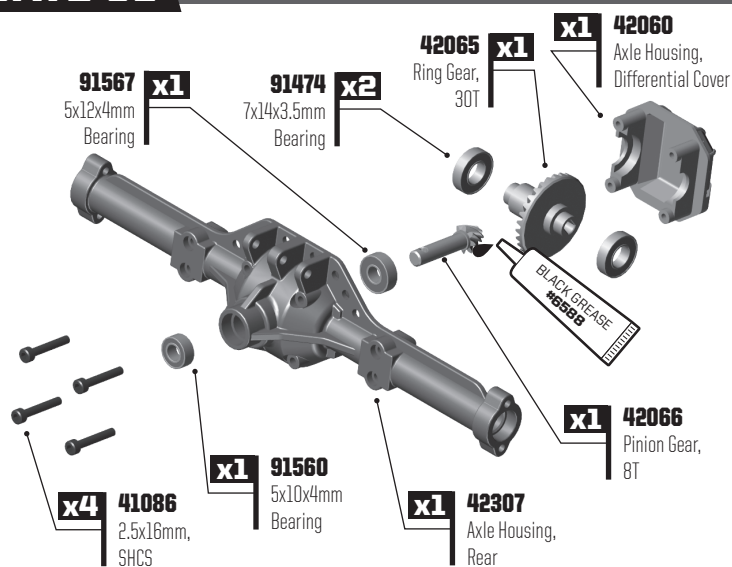




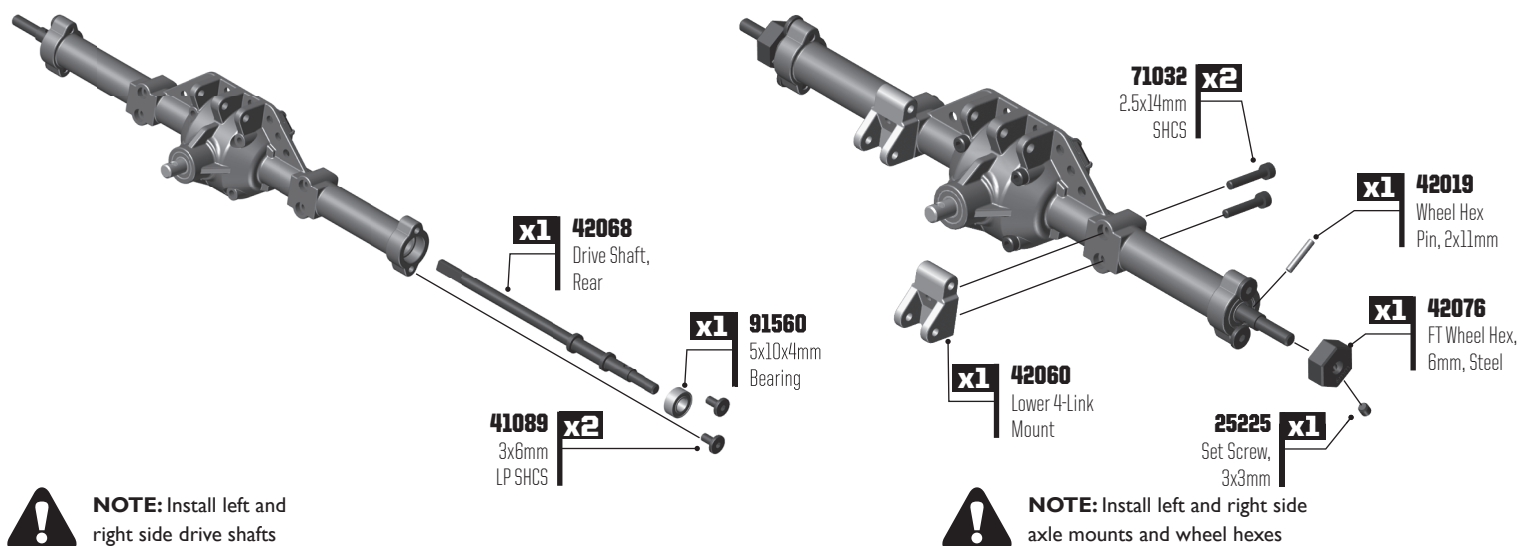
## GATE 03 FRONT AXLE BUILD



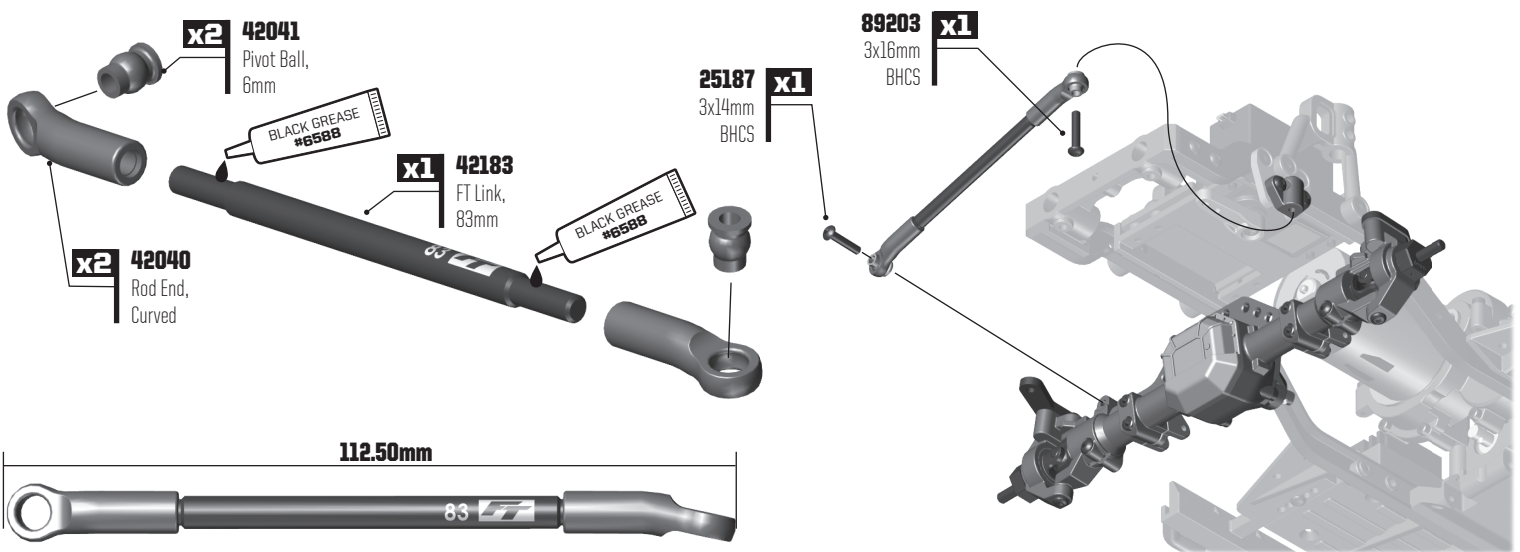
## GATE 01 REAR AXLE BUILD



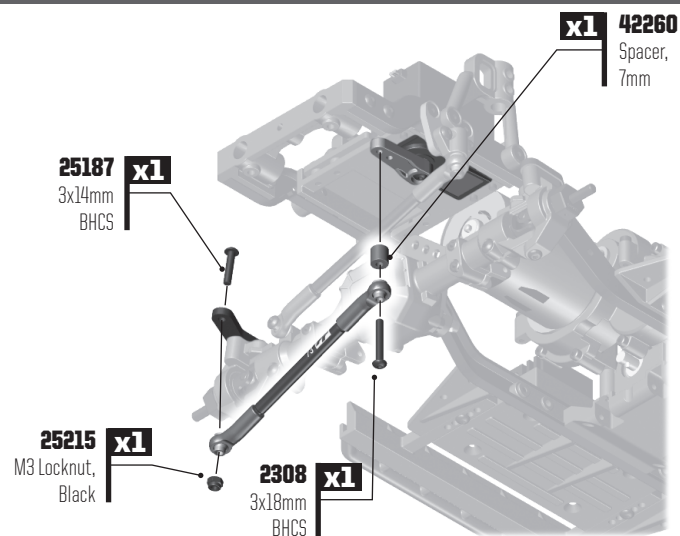
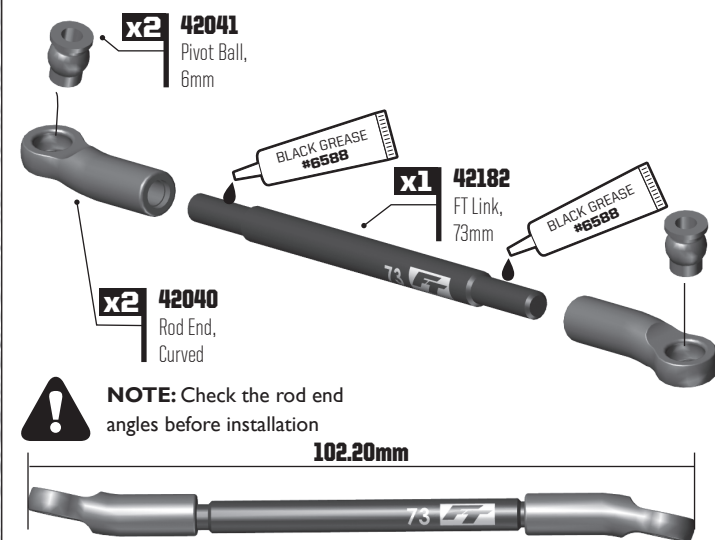
## GATE 02 REAR AXLE BUILD



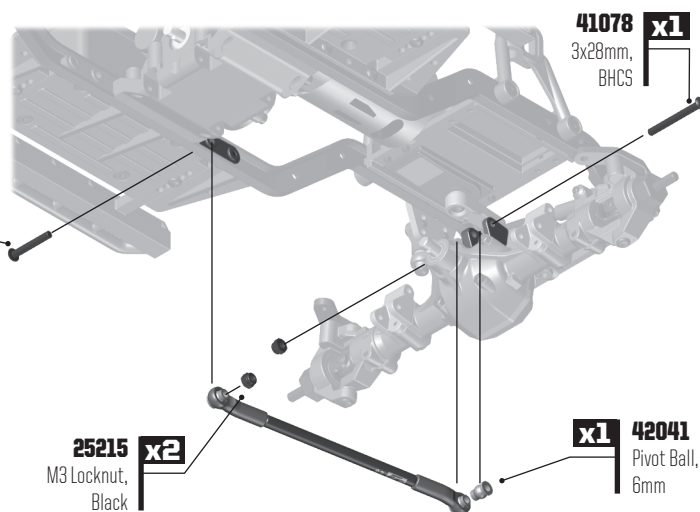
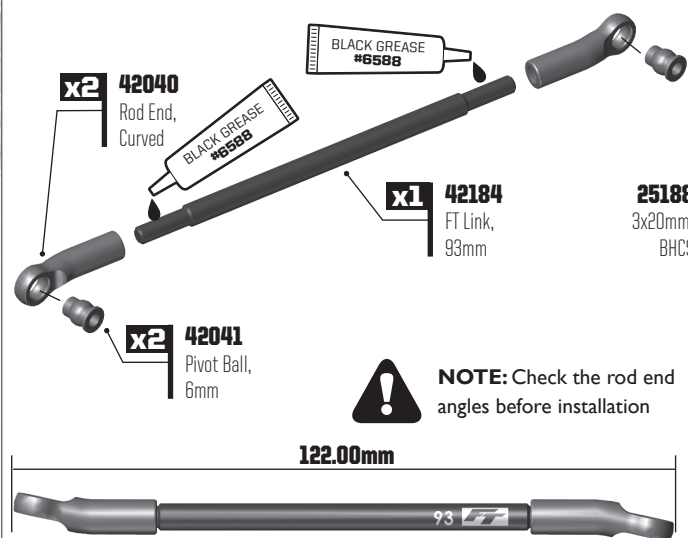
## GATE 01 LINKS BUILD



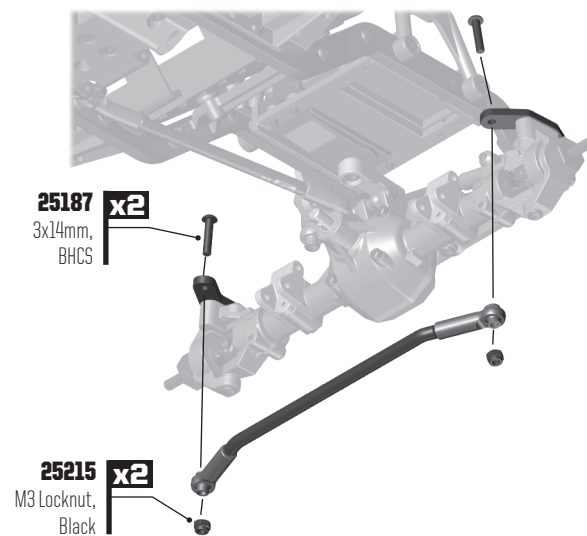
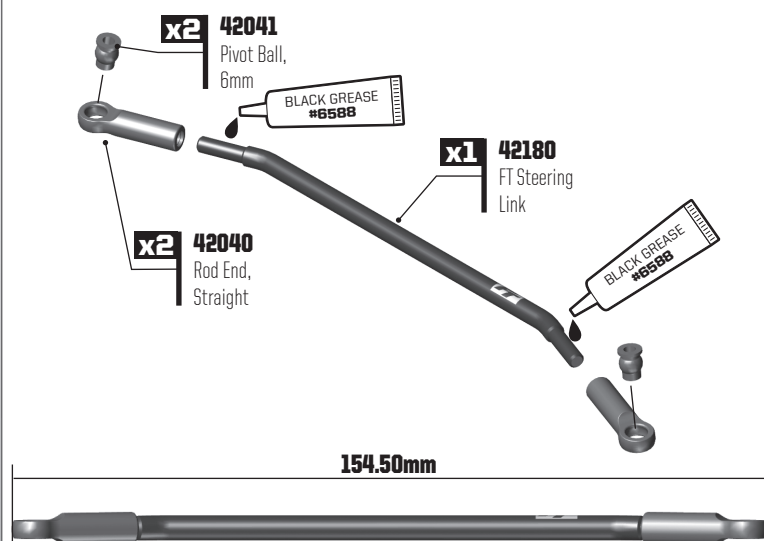
## GATE 02 LINKS BUILD



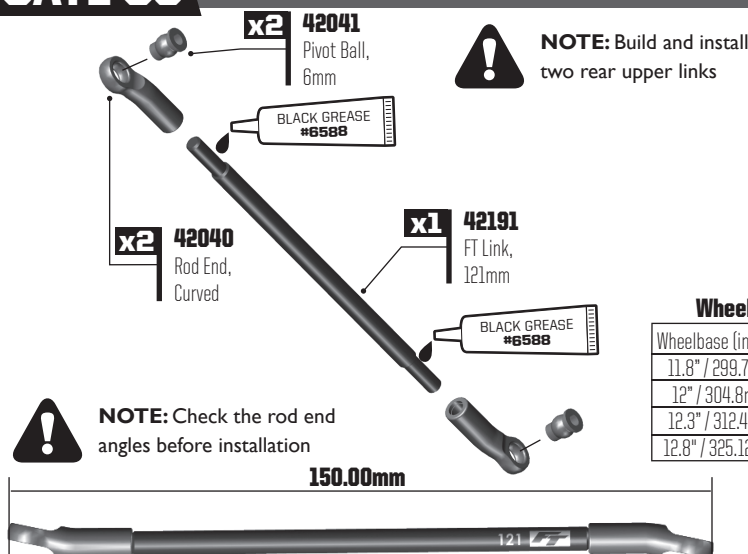
## GATE 03 LINKS BUILD



## GATE 04 LINKS BUILD

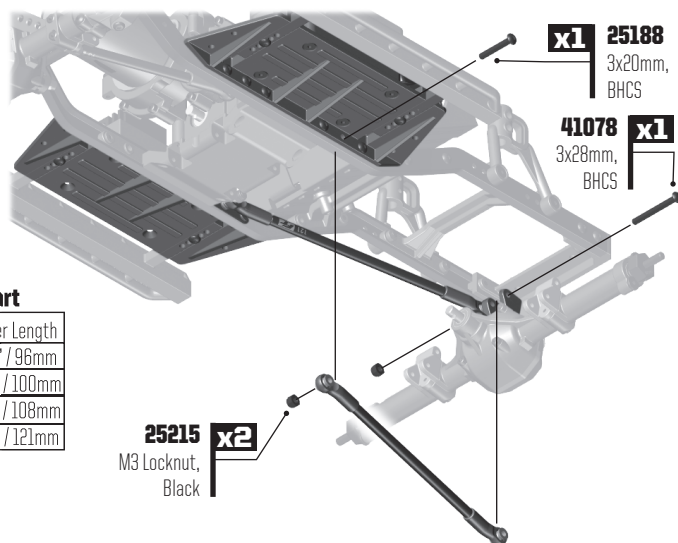


## GATE 05 LINKS BUILD

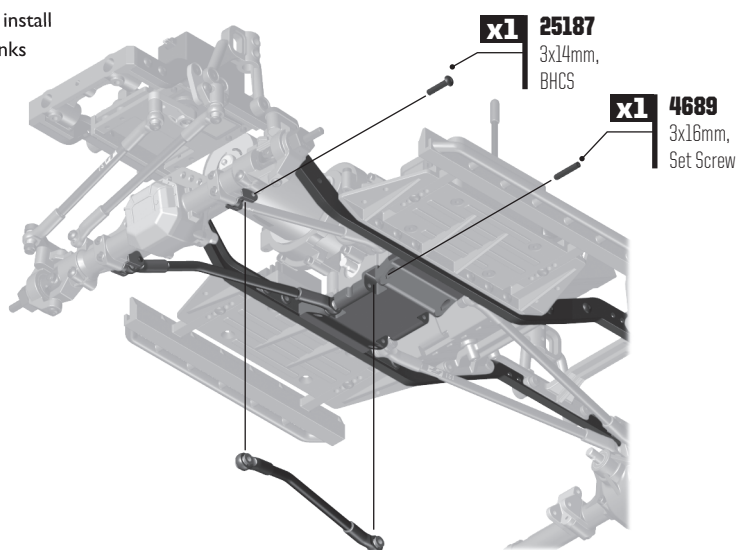
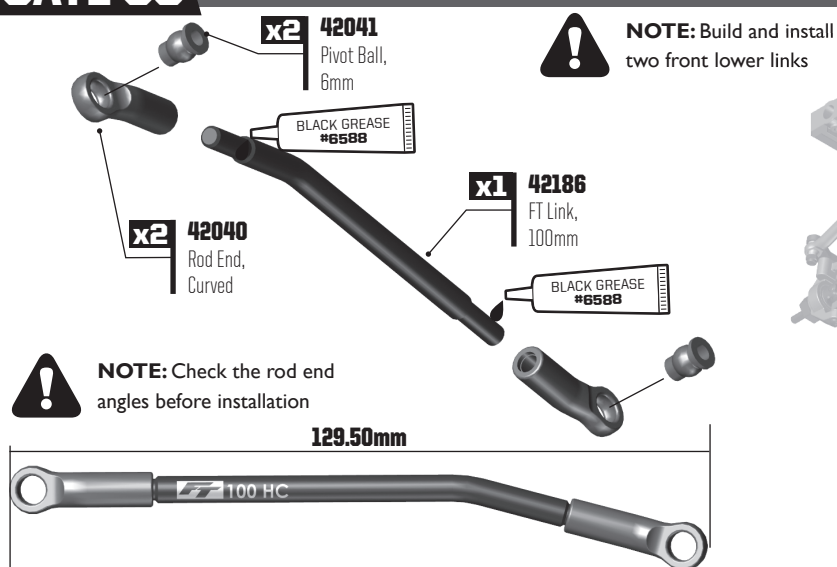


Wheelbase Chart

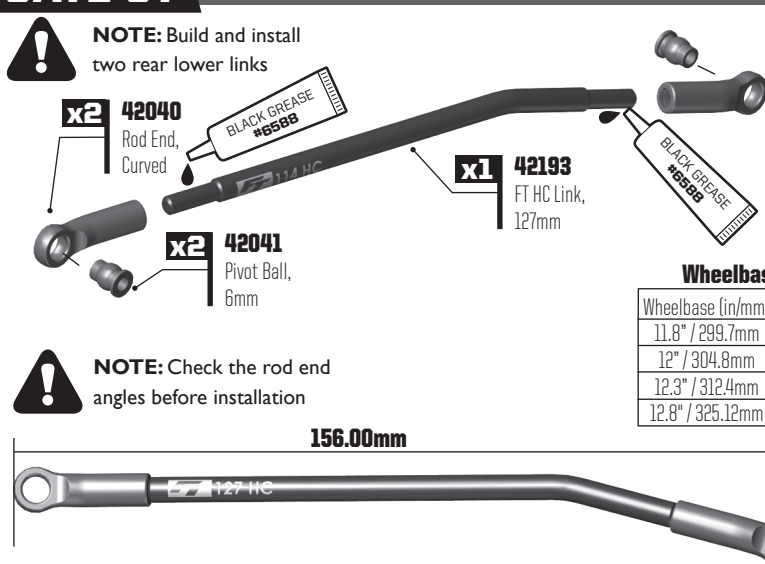
Wheelbase (in/mm)	Upper Length
11.8" / 299.7mm	3.78" / 96mm
12" / 304.8mm	3.93" / 100mm
12.3" / 312.4mm	4.25" / 108mm
12.8" / 325.12mm	4.76" / 121mm



## GATE 06 LINKS BUILD

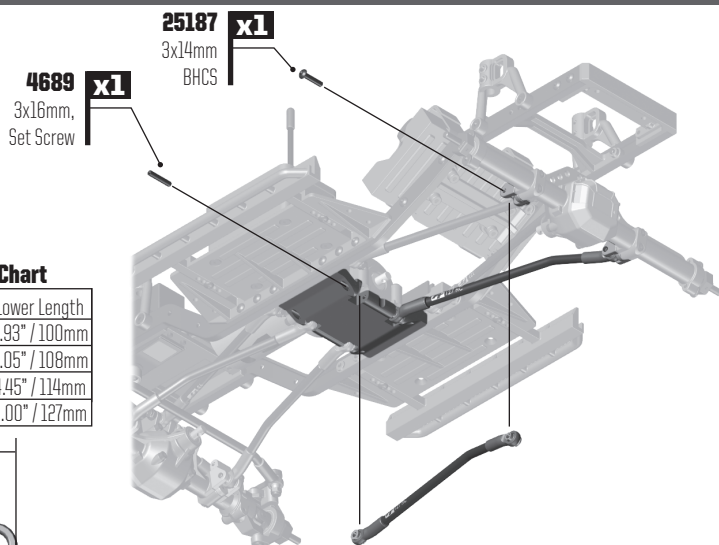


## GATE 07 LINKS BUILD



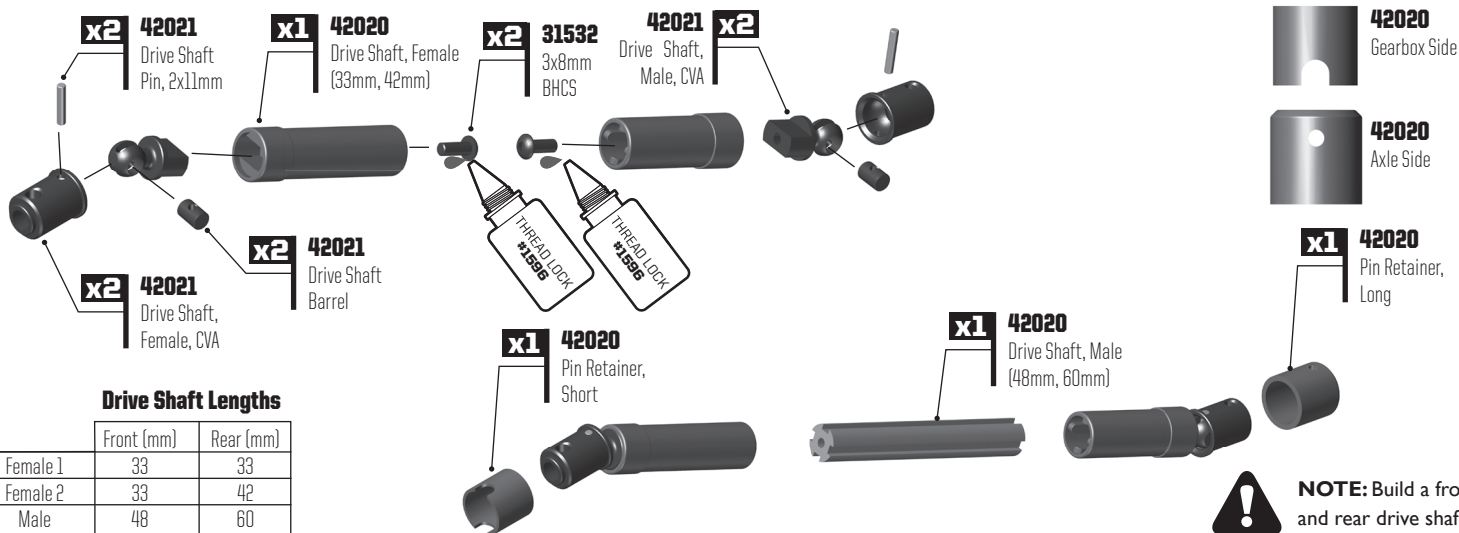
Wheelbase Chart

Wheelbase (in/mm)	Lower Length
11.8" / 299.7mm	3.93" / 100mm
12" / 304.8mm	4.05" / 108mm
12.3" / 312.4mm	4.45" / 114mm
12.8" / 325.12mm	5.00" / 127mm

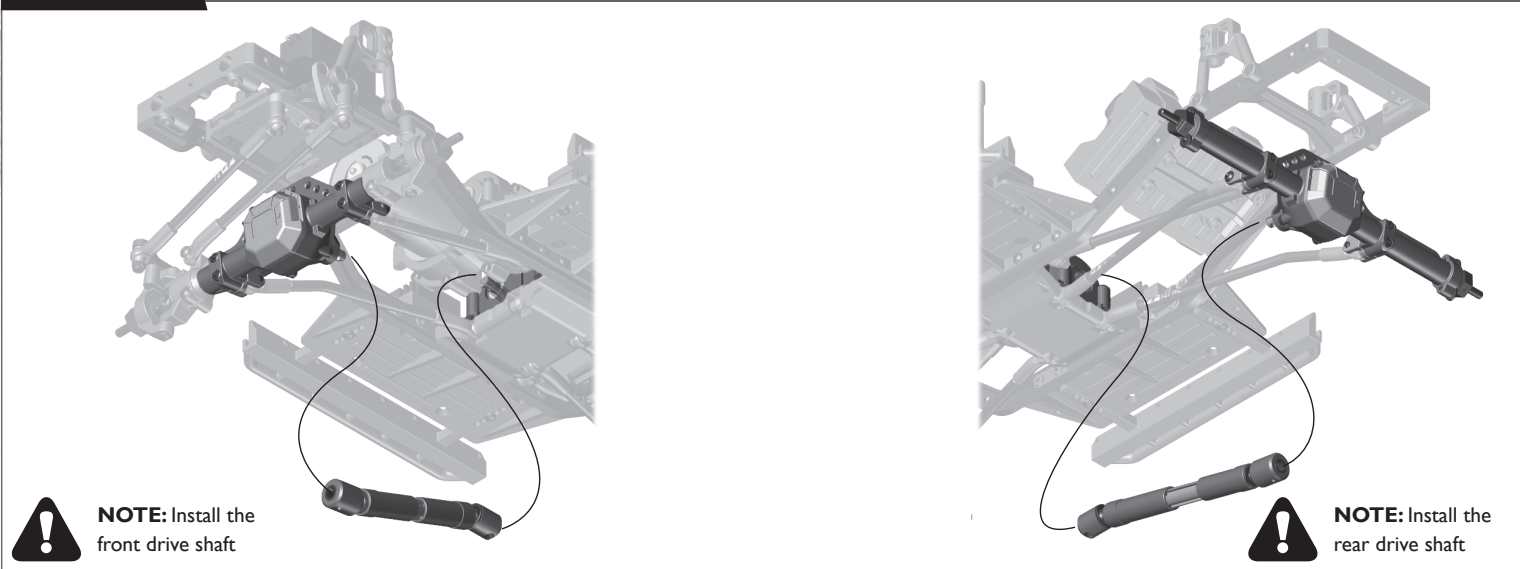




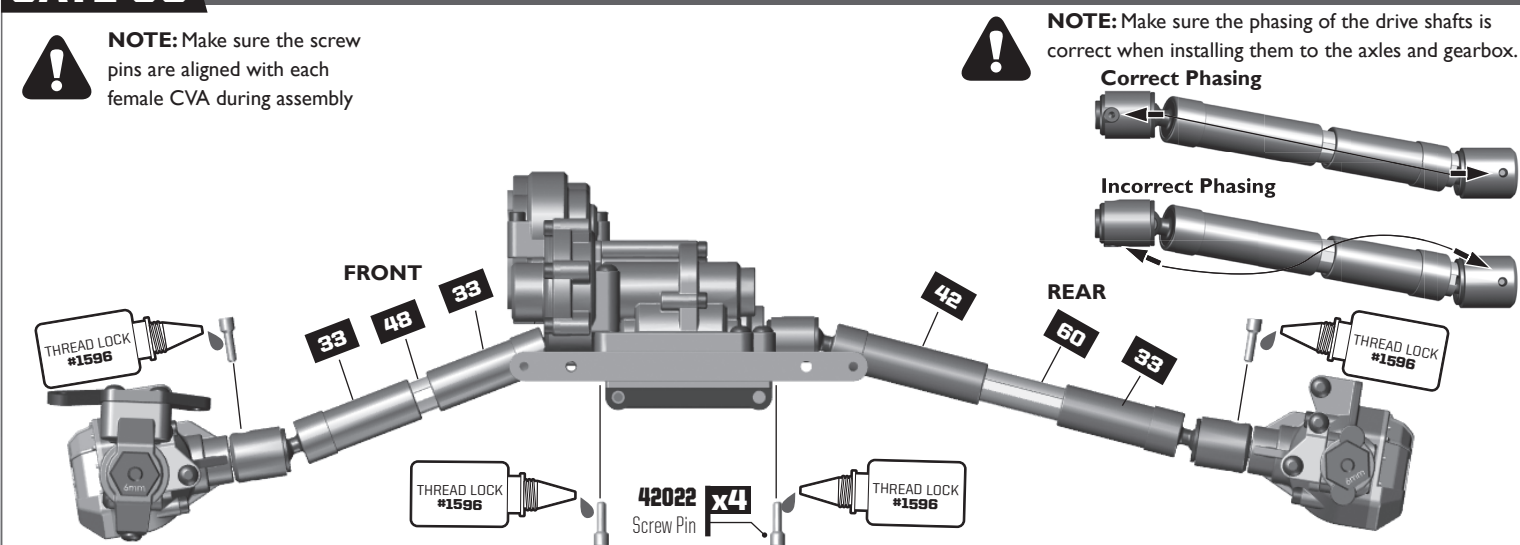
## GATE 01 DRIVE SHAFT BUILD



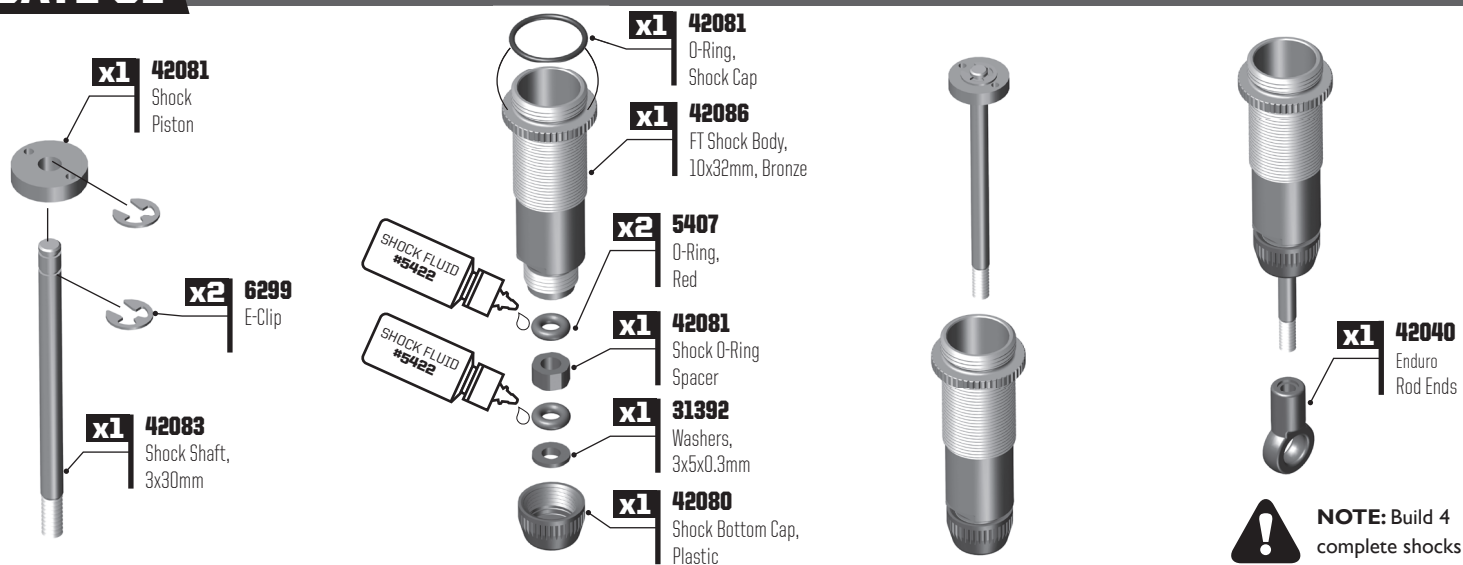
## GATE 02 DRIVE SHAFT BUILD



## GATE 03 DRIVE SHAFT BUILD



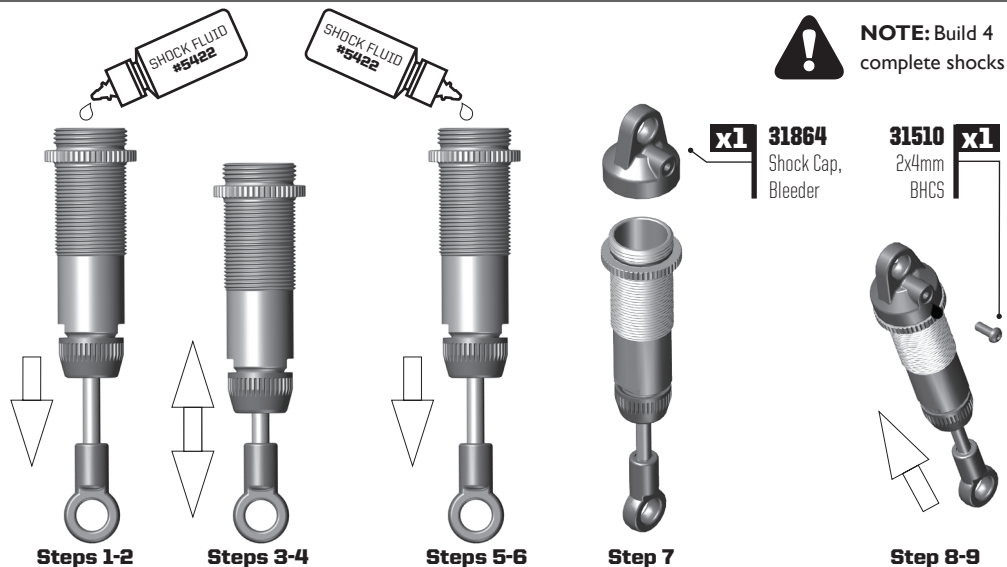
## GATE 01 SHOCK BUILD



## GATE 02 SHOCK BUILD

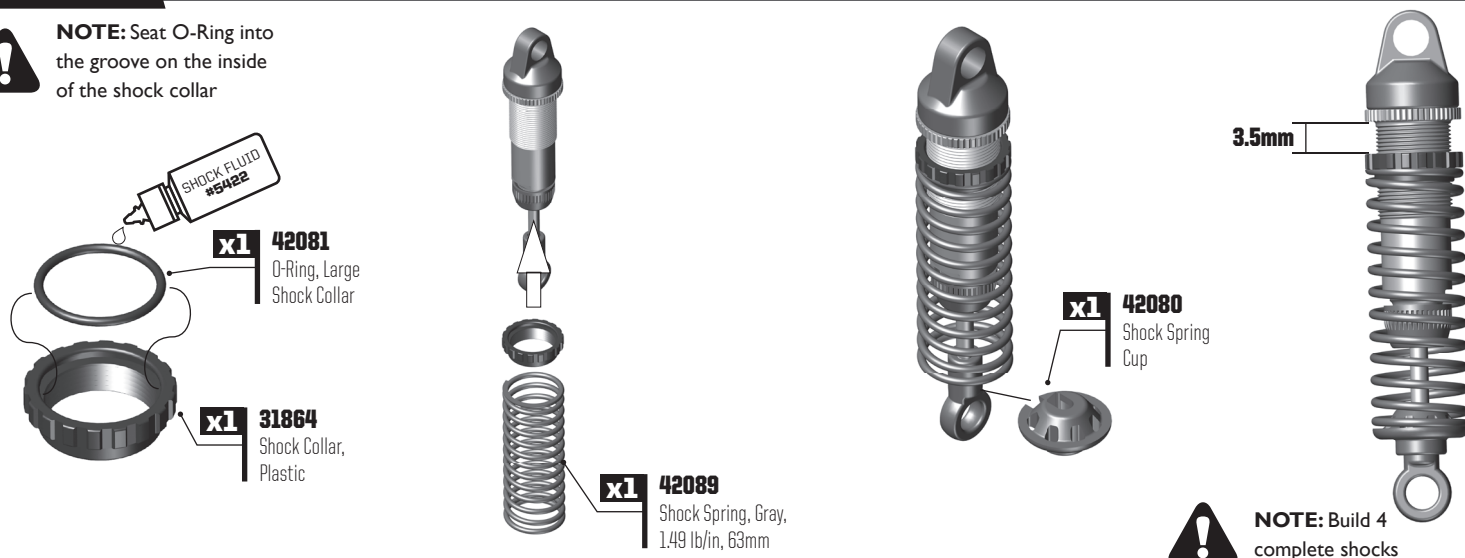
### Shock Bleeding Steps:

1. Pull shock shaft down.
2. Fill shock body 3/4 full with silicone fluid.
3. Slowly move the shock shaft up and down to remove air from under piston.
4. Wait for bubbles to come to surface.
5. Fill shock body to top with silicone fluid.
6. Place a drop of fluid in the cap and on cap threads.
7. Install cap (without bleeder screw) and tighten completely.
8. Slowly compress shaft all the way to bleed excess silicone shock fluid out the bleeder hole in the shock cap (use rag around shock to catch excess fluid).
9. Install M2x4mm button head cap screw until snug while shaft is fully compressed.



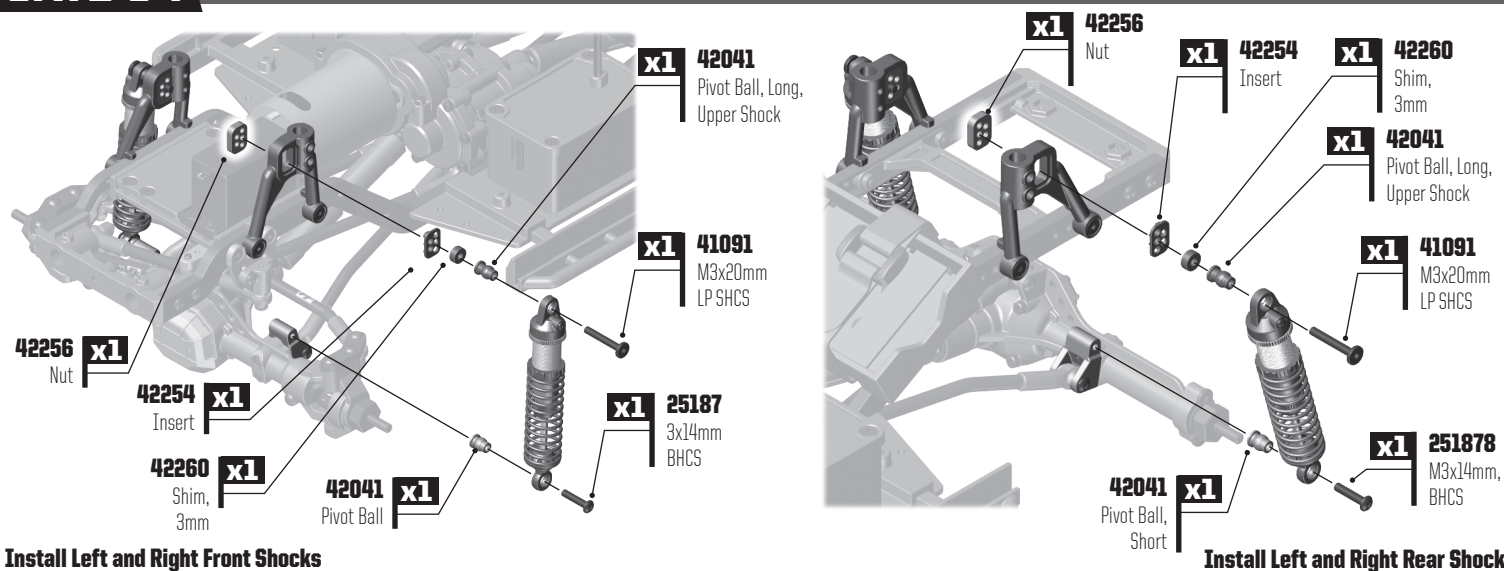
## GATE 03 SHOCK BUILD

**NOTE:** Seat O-Ring into the groove on the inside of the shock collar





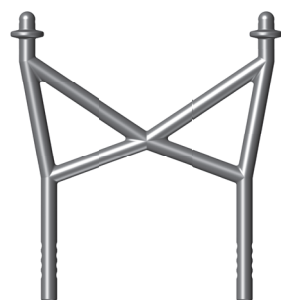
## GATE 04 SHOCK BUILD



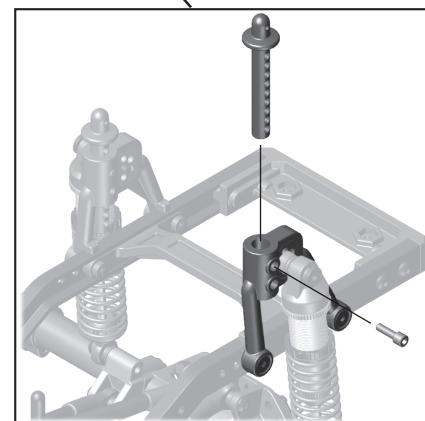
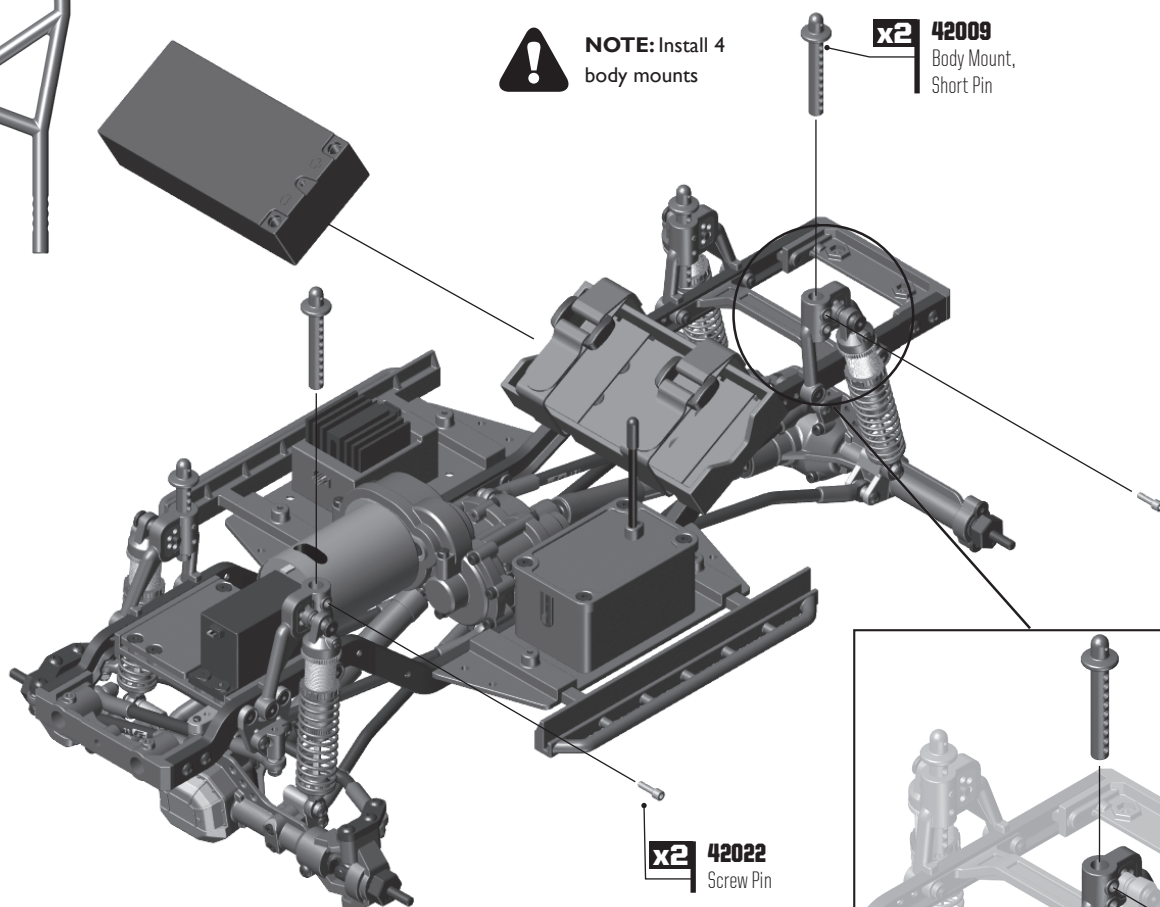
## GATE 01 BODY POSTS



**NOTE:** Below is an image of the included optional tall body post.



**NOTE:** Install 4 body mounts



**GATE 01****STEALTH XF: BUILD CONFIGURATION: MOTOR MOUNT FACING REAR (STOCK)****OVERDRIVE:**

Overdrive is a scenario where the front and rear wheels do not rotate at the same speed. The Stealth XF gearbox is designed to allow the front wheels to spin faster than the rear wheels. Overdrive is advantageous when climbing up rock faces because the front tires will want to pull the vehicle up the rock. On desents, the rear tires rotating slower than the front tires will help keep the chassis more stable and keep the rear tires planted on the ground.

**Stealth XF:**

The Stealth XF gearbox comes factory assembled with no overdrive (1:1).

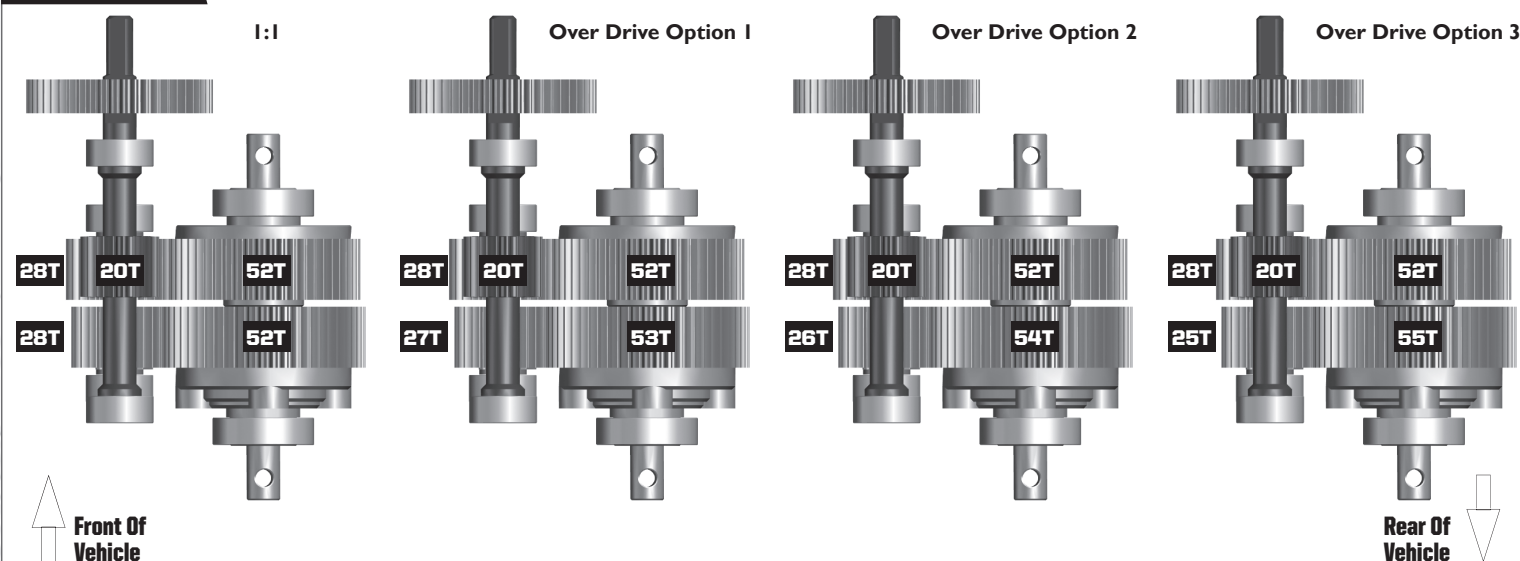
With additional parts, the Stealth XF gearbox allows the driver to change the front to rear drive ratios with 3 separate ratio adjustments to the rear drive shaft.

**Items Needed for OVERDRIVE:**

#42025, #42027, #91563, #42026 -OR- #42031, #42028 -OR- #42032

**Please Note:**

The 20T top shaft, 28T idler gear, and 52T drive gear will always be meshed together in all 3 gearbox configurations.

**GATE 02****STEALTH XF: BUILD CONFIGURATION: MOTOR MOUNT FACING FRONT (STOCK)****GATE 03****LINKS: WHEELBASE CHART - PARTS NEEDED****WHEELBASE CHART**

WB	FRONT UPPER	FRONT LOWER	REAR UPPER	REAR LOWER
11.8"	93mm #42184	100mm #42185 #42186	93mm #42184	100mm #42185 #42186
12.0"	93mm #42184	100mm #42185 #42186	100mm #42185	108mm #42187 #42188
12.3"	93mm #42184	100mm #42185 #42186	108mm #42187	114mm #42189 #42190
12.8"	93mm #42184	100mm #42185 #42186	121mm #42191	127mm #42192 #42193

**Items Needed for Links:**

#42040 - Rod Ends

**Panhard Links [CMS]:** Servo on Axle Links

Panhard - #42183

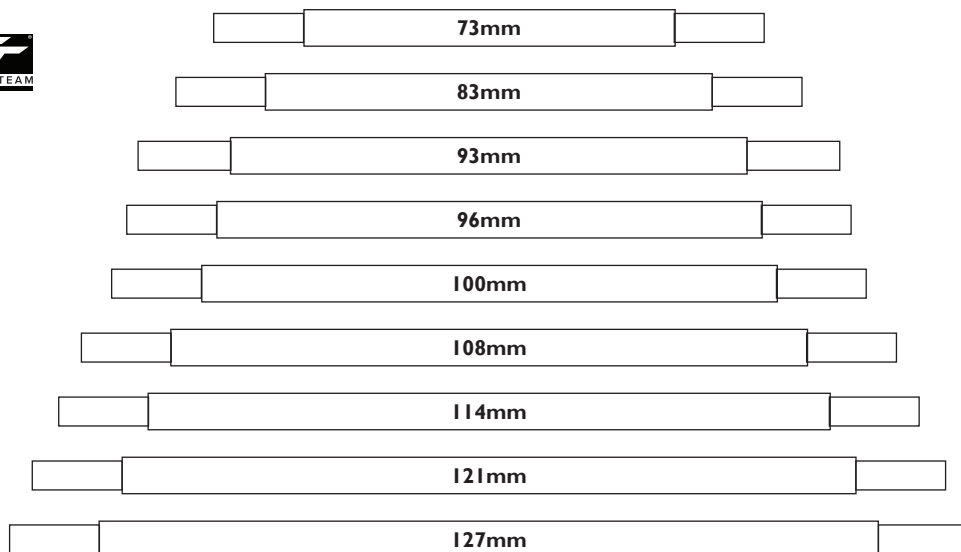
Steering Input - #42182

Steering Link - #42180

**[SOA]:**

Links - #42323

Steering Link - #42180



## TRAIL TIPS AND CHECKLIST

### PREPARING TO HIT THE TRAIL:

When preparing to hit the trail, it's a good idea to have a checklist to make sure you have everything and don't end up having to head back early. We've compiled a checklist of the things we think you'll need on the trail. We've also left some space for you to add your specific items to the list. Keep in mind these are suggestions and every person will require different items. Weather and altitude will also dictate how much food and water a person will require. Do a little research first before heading out for a full day on the trail.

- ☐ Truck with charged battery
- ☐ 1-2 spare charged batteries for your rig
- ☐ Radio with charged batteries
- ☐ Spare radio batteries
- ☐ Check all nuts and screws and tighten them. Including wheel nuts!
- ☐ Spare parts (nuts, screws, body clips, and anything that may wear or break)
- ☐ Backpack
- ☐ Water (2 liters per person minimum)
- ☐ Snacks (protein bars, trailmix, etc.)
- ☐ Sturdy shoes (hiking boots preferably or something with grip and ankle support)
- ☐ Element hat or beanie
- ☐ Element hoodie or jacket
- ☐ Sunscreen
- ☐ Bug spray
- ☐ Lip balm
- ☐ Nut drivers (Factory Team nut drivers #1507, 1508)
- ☐ Allen wrenches (Factory Team hex driver set #1650)
- ☐ Cell phone and charger
- ☐ Headlight or flashlight with spare batteries
- ☐ Compact action camera
- ☐ Camera
- ☐ Tripod
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_

### TREAD LIGHTLY:

Remember, when driving your rig out on the trails, it's important to tread lightly. We all know that the best place to enjoy our hobby is out in nature, and that means we need to preserve it for future hobbyists so we all have a place to enjoy. Here are a few tips to remember when out on the trail.

#### • Pack In/Pack Out:

Don't leave anything behind, whether it's trash, parts, or food. If you brought it, take it with you.

#### • National and Public Parks:

If visiting a national park, leave the RC cars at home. It is illegal to drive any radio control vehicle within national park boundaries. Public parks are slightly different, some may allow radio control cars and others may not. Check with your local officials before driving in a public park.

#### • Be Considerate:

Wherever you drive your radio-control car, always be considerate of others. Hikers, bicyclists, and animals should always be given the right of way.

#### • Keep It Quiet:

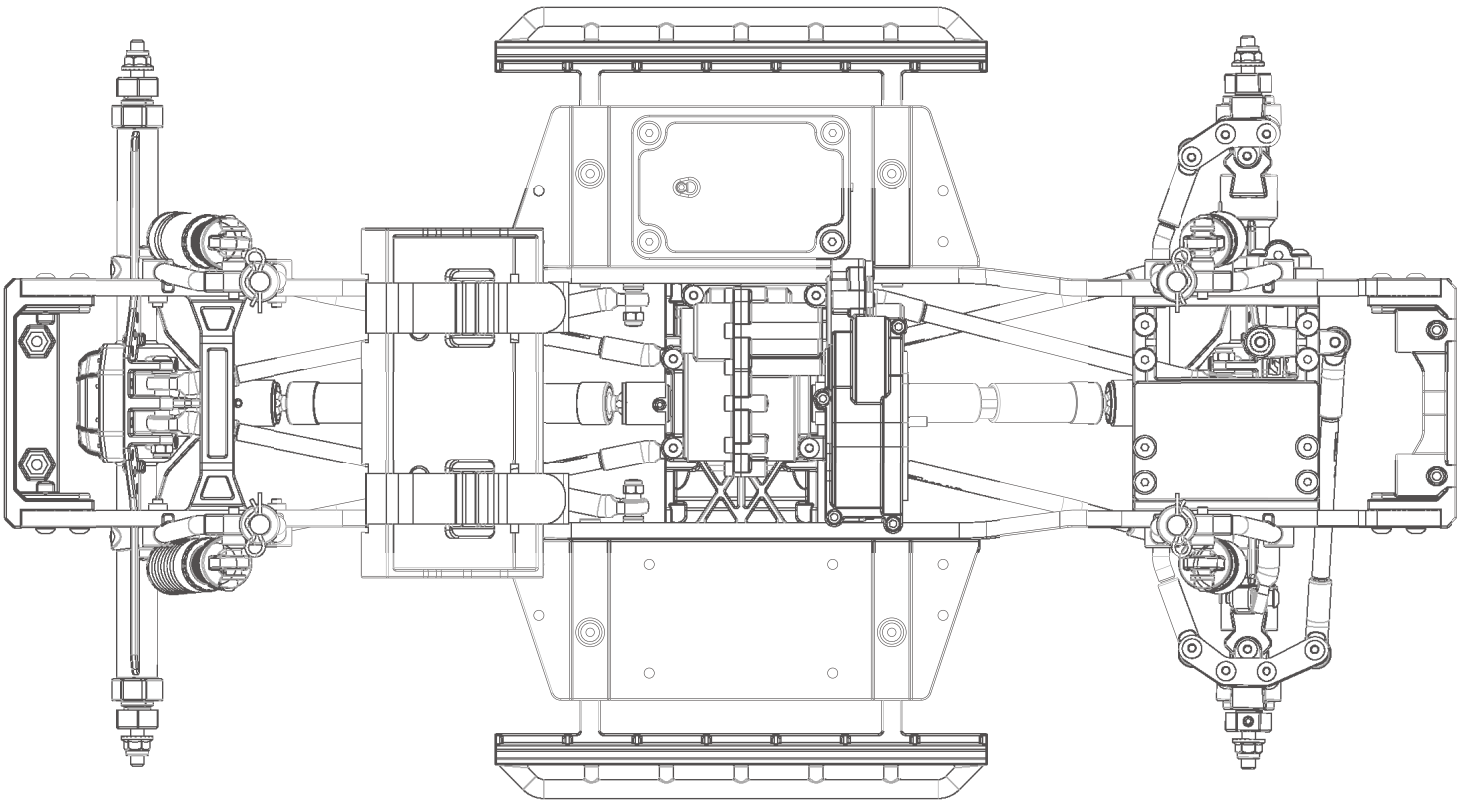
If you're sharing an area with other people, try to keep the noise to a minimum. If you come across animals or anglers, please be considerate and give them space.

#### • Give A Hoot, Don't Pollute:

When enjoying the outdoors, take your trash with you. Not only is it bad for the environment, it's unsightly. If you see trash, pick it up, even if it isn't yours. If we all do our part, we can work together to keep our planet beautiful for future generations.

#### • Only You Can Prevent Wild Fires:

Some of us like to mix camping with RC cars. This is great! Just remember to follow all safety precautions and put out any camp fires before calling it a night. Also, be sure to unplug and **store all LiPo batteries in LiPo sacks and a fire resistant storage device.**



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