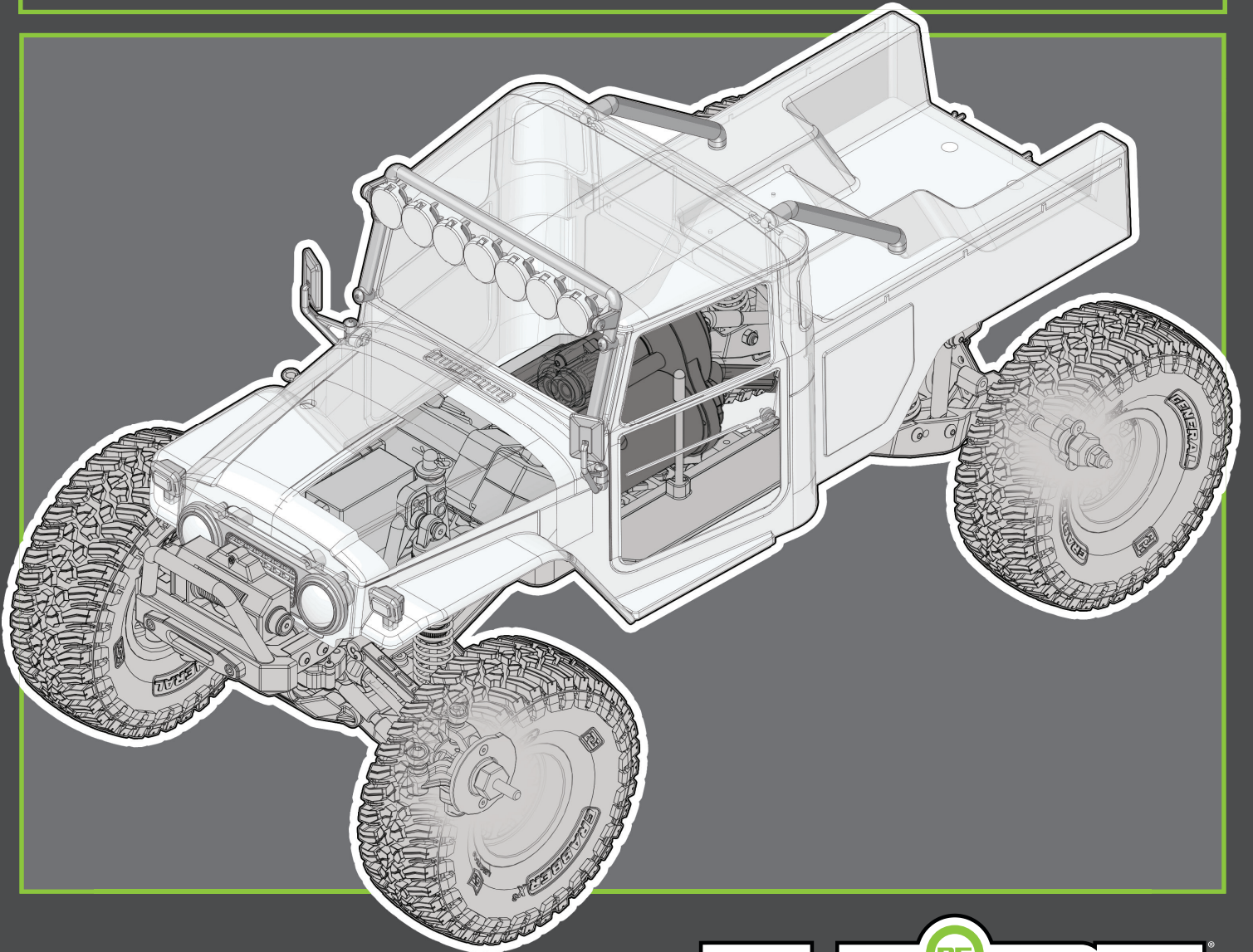


ENDURO

ZUUL IFS2
OFF-ROAD 4X4



OWNERS BUILD MANUAL





Associated Electrics, Inc.
21062 Bake Parkway.
Lake Forest, CA 92630

Customer Service
Tel: 949.544.7500
Fax: 949.544.7501

Follow Us On Social Media



ElementRC



@Element_RC

www.ElementRC.com

AE is a Registered Trademark of Associated Electrics, Inc.

TEAM ASSOCIATED is a Registered Trademark of Associated Electrics, Inc.

REEDY is a Registered Trademark of Associated Electrics, Inc.

FACTORY TEAM is a Registered Trademark of Associated Electrics, Inc.

ELEMENT™ is a Trademark of Associated Electrics, Inc.

AREA 51 is a Registered Trademark of Associated Electrics, Inc.

STEALTH is a Registered Trademark of Associated Electrics, Inc.

GREEN SLIME is a Registered Trademark of Associated Electrics, Inc.

ITEMS NEEDED

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

- 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 vehicle.

- Threadlock (#1596) *Not Included
- Green Slime (#1105) *Not Included
- Black Grease (#6588)

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.

FEATURES

IFS2 ZUUL RTR CHASSIS FEATURES:

- **STEALTHR X TRANSMISSION:** Our transmission features the ability to adjust the rear drive ratio independently of the front drive in 3 levels: stock overdrives the front 5.7%, option 1 (not included) is a one-to-one drive ratio, and option 2 overdrives the front 11.83%.
- **ALUMINUM TRACK BAR MOUNT:** The GKSTM package includes an aluminum track bar mount bolted directly to the steel frame rail, making the front suspension more rigid and flex-free with a more precise steering feel.
- **SHOCK MOUNT INSERTS:** GKSTM shock mount inserts provide drivers with the ability to tune shock angle, droop and vehicle ride height without affecting spring preload.
- **REAR ANTI-ROLL BAR:** The rear anti-roll bar helps keep the rear suspension stable while driving over rough terrain and improves climbing ability on steep inclines or side hills.
- **REEDY POWER CRAWLER MOTOR:** The Reedy Power 5-slot 14-turn brushed 550 crawler motor provides ample torque with a smooth power delivery. This allows for slow precise acceleration while maintaining consistent power over rough terrain and obstacles.
- **FLYSKY 2-in-1 ESC/ RECEIVER UNIT:** The IFS2 Zuul RTR comes equipped with a Flysky 2-in-1 brushed electronic speed control (ESC) and receiver unit with built-in LED lighting controller.
- **TRAILING ARM REAR SUSPENSION:** At the heart of the Gatekeeper Suspension (GKSTM) are the rear trailing arms. This design moves the shocks forward, thus improving weight bias. Because the shock mounting points are farther forward on the lower links and chassis, this allows for a larger window for shock tuning and an optimized anti-roll bar mounting position.

ADDITIONAL FEATURES:

- IFS2 Independent Front Suspension
- Symmetrical (left to right) upper and lower control arms
- Flipped lower pivot ball mount for increased ground clearance

- Traditional CMS steering servo mounting location
- Servo winch mount location
- Heavy duty steel suspension balls
- Metal ring and pinion gears
- Universal front drive axles
- Larger input bearing/bushing cavity
- 45 deg. steering throw
- Integrated servo winch mount
- Threaded aluminum shock bodies
- Stamped steel frame rails
- 12mm wheel hexes
- Aluminum motor plate
- Optimized ball cups for more fluid axle articulation
- Telescopic driveshafts front and rear
- Extruded aluminum driveshaft splines
- One-piece rear axle design
- Machined input pinion gear
- Machined steel top shaft
- Heavy duty 5mm diameter steel links
- Metal ball bearings included
- Steel 25T servo horn









ADDITIONAL BODY FEATURES:

- Thermoformed polycarbonate body styled after early pickup trucks
- Scratch and Weather Customizable Body Paint
- Narrow body design for increased performance and clearance
- Clear windows
- Dropped bed design
- Adjustable injection-molded front bumper
- Injection-molded fairlead
- Injection-molded mock winch
- Injection-molded grill and signal lights with clear lenses
- Licensed 1.9"x4.19"x1.4" General Grabber A/TX tires
- Licensed 1.9" Method 701 Trail Series wheels








HARDWARE 1:1 SCALE VIEW

HARDWARE USED WITH OPTIONAL REPLACEMENT PART NUMBERS




FLAT HEAD SCREWS (FHCS)

	2.5x10mm (31350)
	2.5x14mm (41077)
	3x8mm (25201)
	3x10mm (25202)
	3x12mm (25203)
	3x14mm (89208)
	3x20mm (89210)
	3x24mm (89233)

SOCKET HEAD SCREWS (SHCS)

	Aluminum (8566)
	2x8mm (7187)
	2.5x6mm (41079)
	2.5x8 (89222)
	2.5x10 (41087)
	2.5x14 (71032)
	2.5x16 (41086)



LP SOCKET HEAD SCREWS (LP SHCS)

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














SET SCREWS

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



PIVOT BALLS

	Pivot Ball, 6mm (42041) FT Pivot Ball, 6mm (42056)
	Pivot Ball, Upper Shock (42041) FT Pivot Ball, Upper Shock (42055)






BUTTON HEAD SCREWS (BHCS)

	2.5x10mm (41088)
	3x5mm (31530)
	3x6mm (31531)
	3x8mm (31532)
	3x10mm (25211)
	3x12mm (89202)
	3x14mm (25187)
	3x16mm (89203)
	3x18mm (2308)
	3x20mm (25188)
	3x22mm (25189)
	3x24mm (89204)
	3x28mm (41078)









LOCK NUTS

	M3 Nuts (91477) M3 Locknuts (25215) Aluminum (31550)
	M4 Locknut W/Flange (25391)



BEARINGS

	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)

LINKS






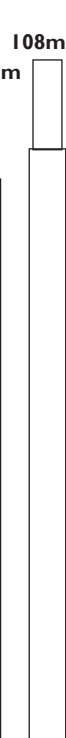
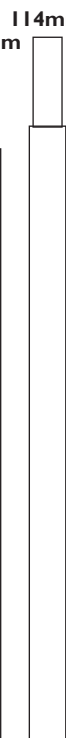
	73mm
	83mm
	93mm
	96mm
	100mm
	108mm
	114mm

TABLE OF CONTENTS

9/3/2024

01	COVER	13	SHOCKS BUILD
02	INTRODUCTION	14	BODY BUILD
03	1:1 HARDWARE "FOLD OUT"	16	TRAIL TIPS
04	TABLE OF CONTENTS	17	OPTIONAL GEARBOX BUILD
05	TRANSMISSION BUILD	18	BACK COVER
06	CHASSIS BUILD		
10	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.



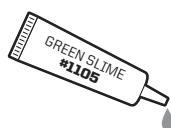
This symbol indicates the order within a step to assemble parts.



This symbol indicates a Trail Tip.



This symbol indicates where Black Grease should be applied.



This symbol indicates where Green Slime can be applied.



This symbol indicates where Thread Lock Adhesive should be applied.

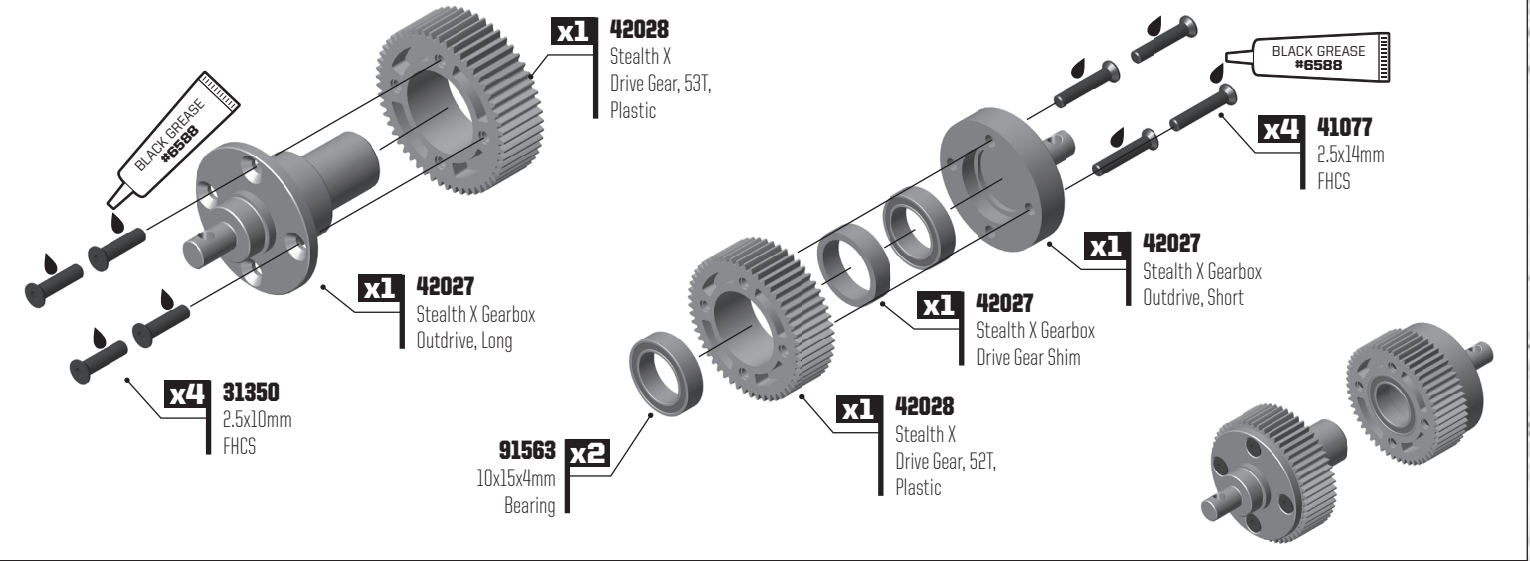


This symbol indicates where Shock Fluid should be applied.

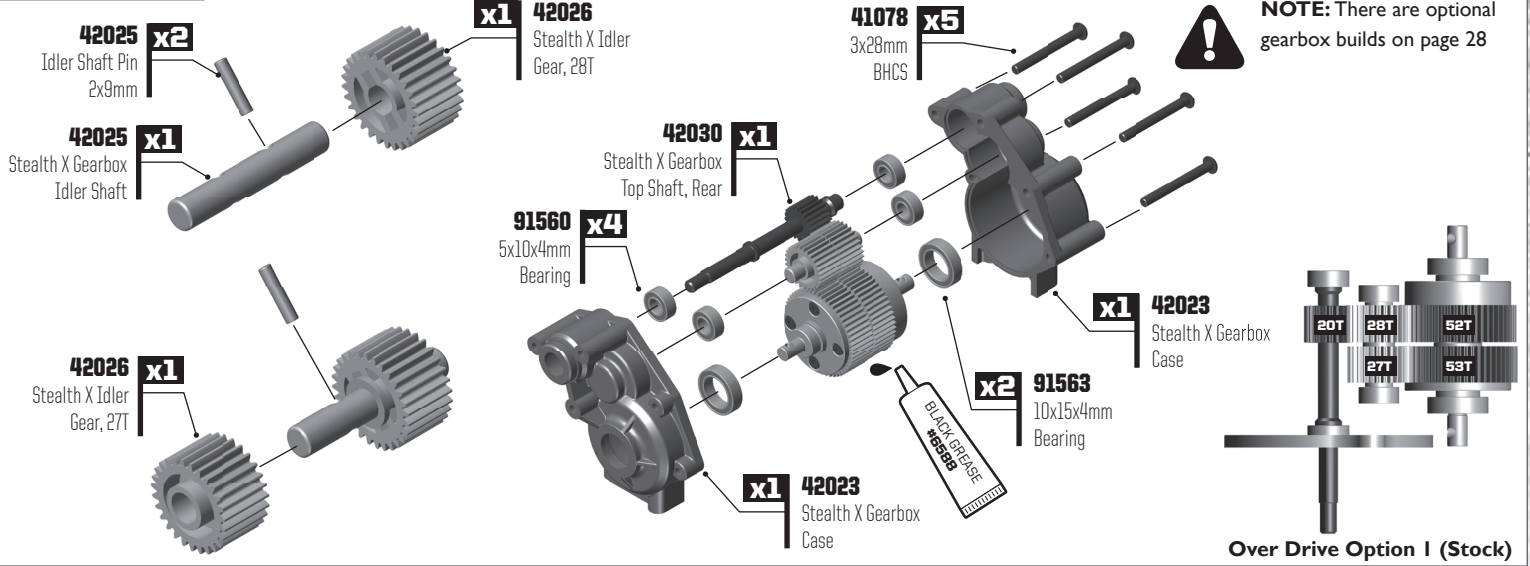


There is a 1:1 hardware foldout page in the front of the manual. To check the size of a part, line up your hardware with the correct drawing until you find the exact size. Each part in the foldout has a number assigned to it for ordering replacement parts.

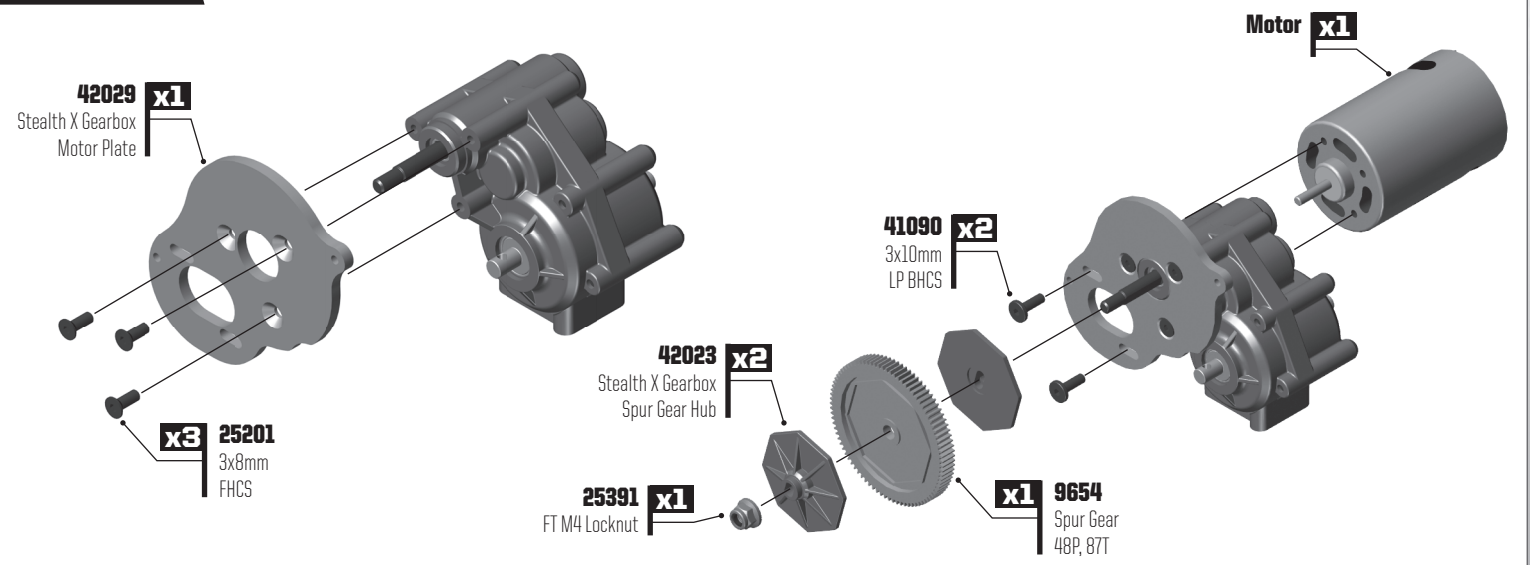
GATE 01 TRANSMISSION BUILD



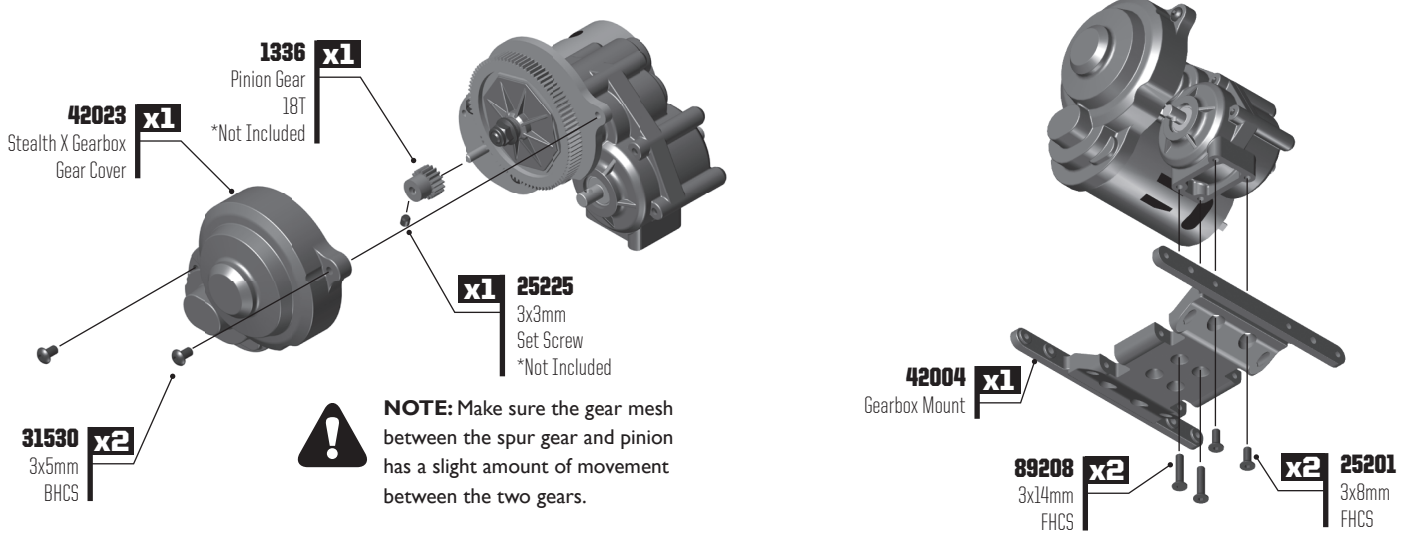
GATE 02 TRANSMISSION BUILD



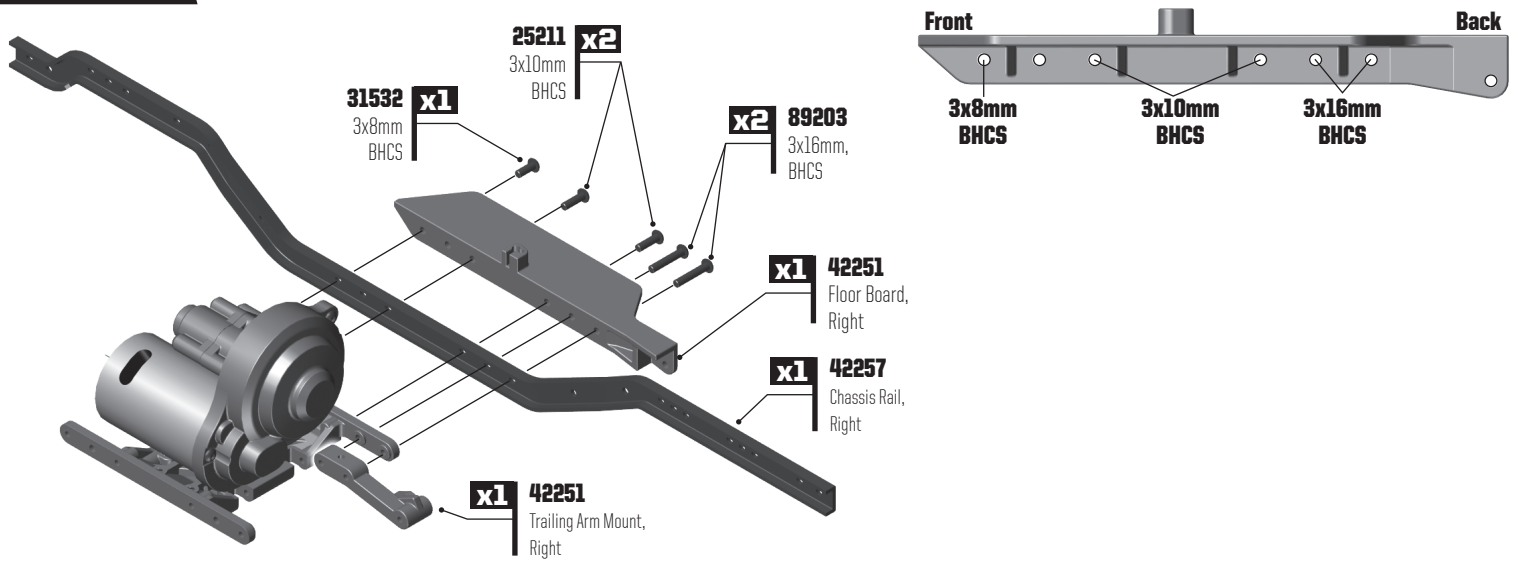
GATE 03 TRANSMISSION BUILD



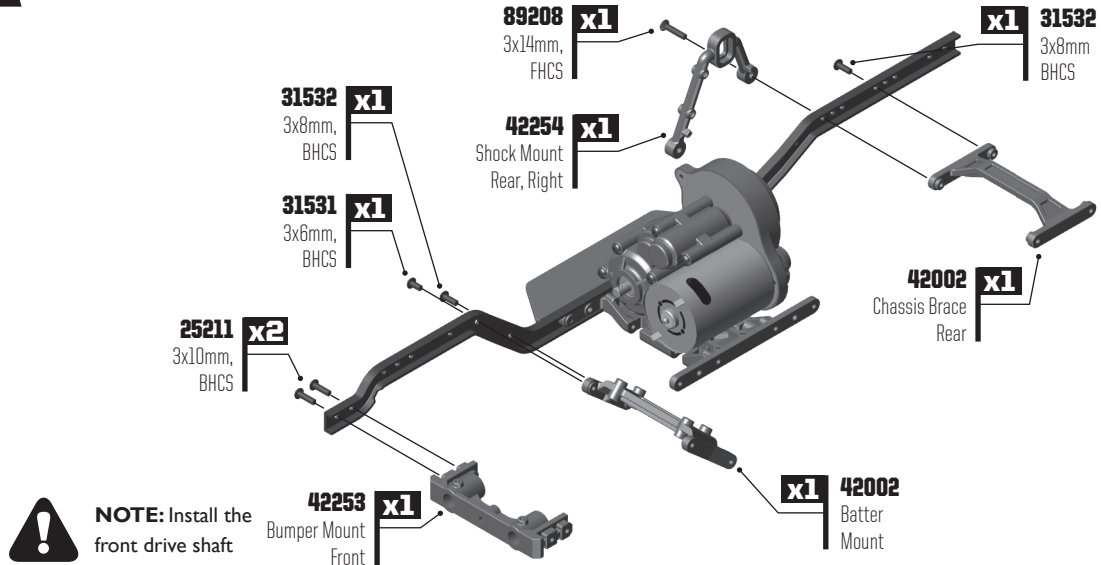
GATE 04 TRANSMISSION BUILD



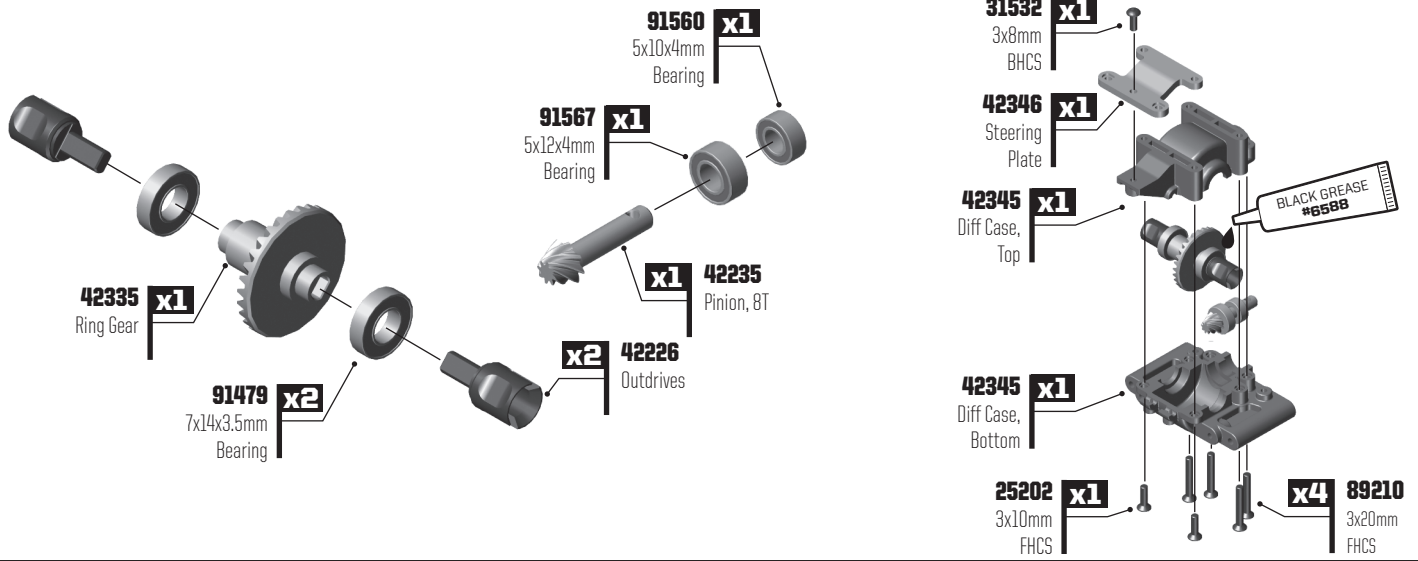
GATE 01 CHASSIS BUILD



GATE 02 CHASSIS BUILD

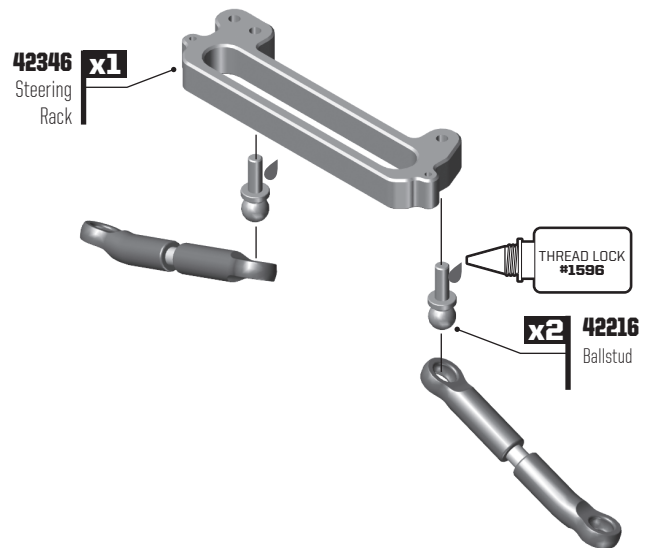
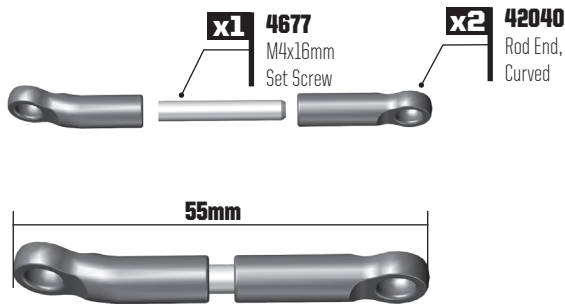


GATE 03 CHASSIS BUILD

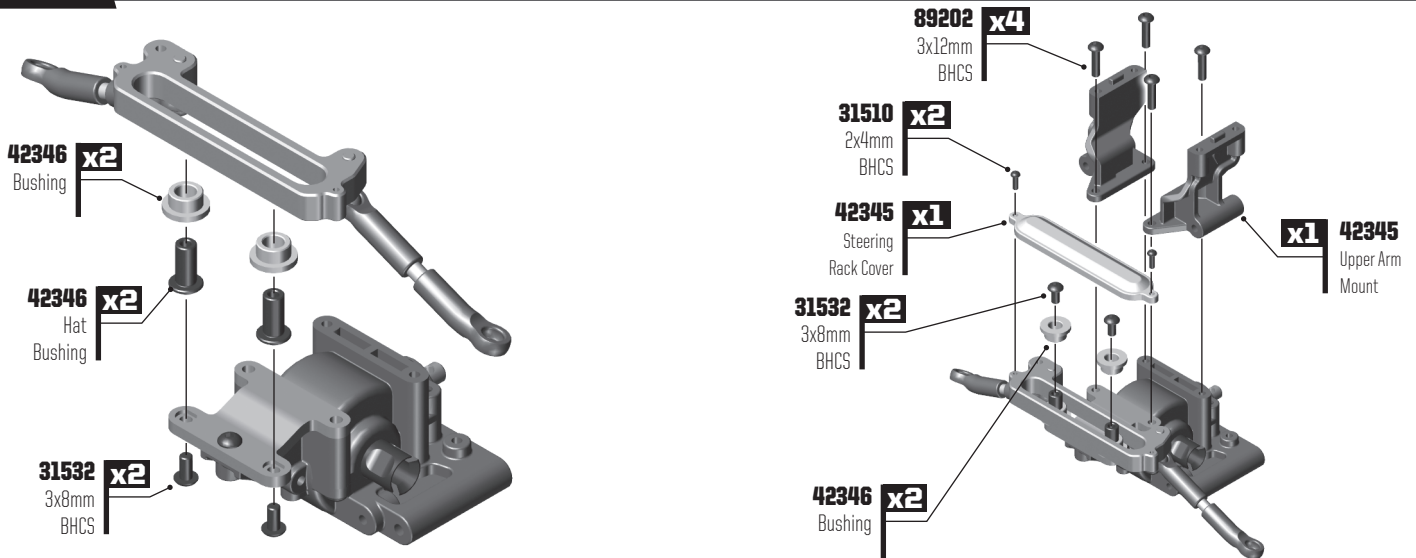


GATE 04 CHASSIS BUILD

NOTE: Check the rod end angles before installation

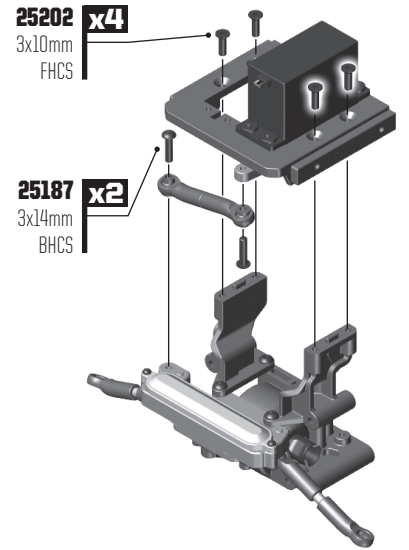
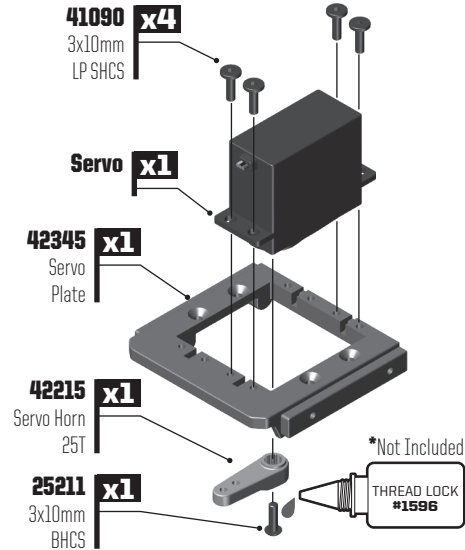
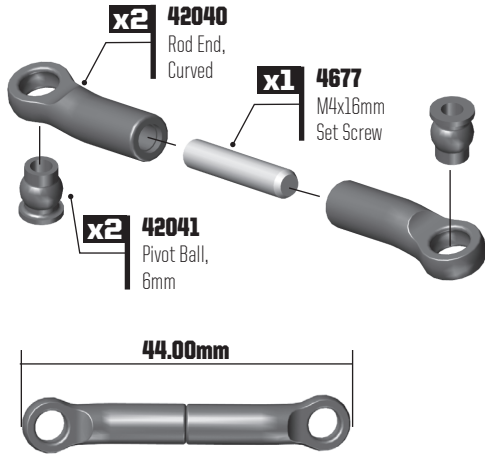


GATE 05 CHASSIS BUILD

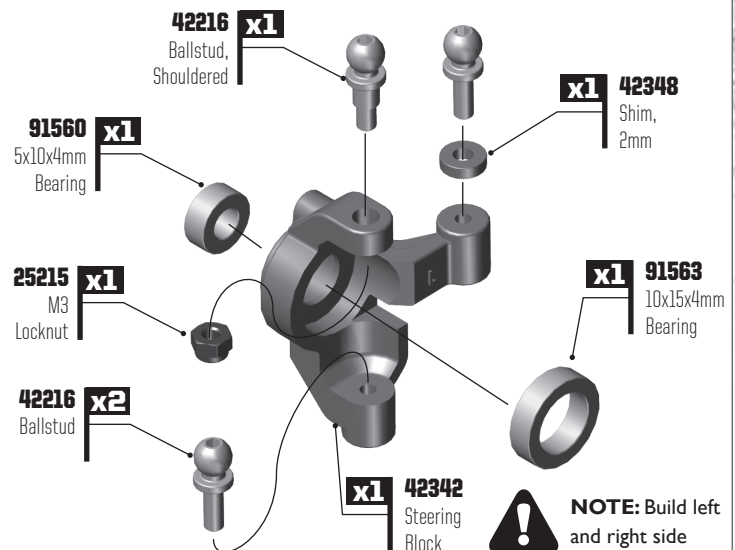
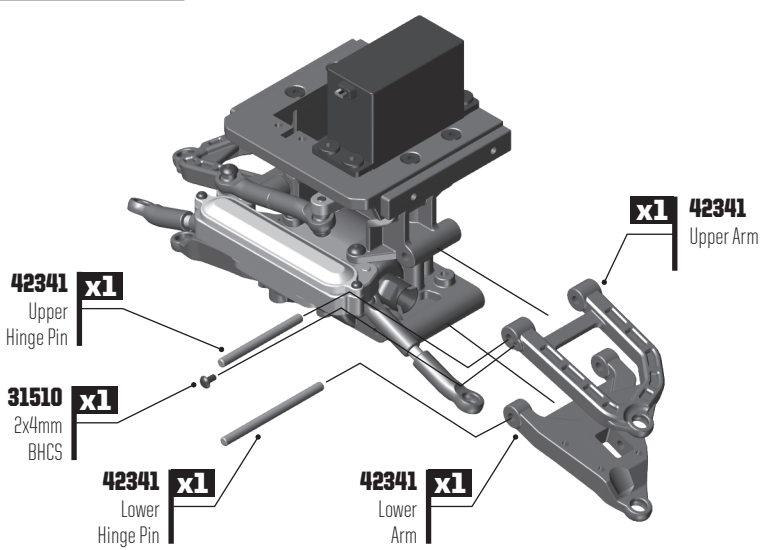


GATE 06 CHASSIS BUILD

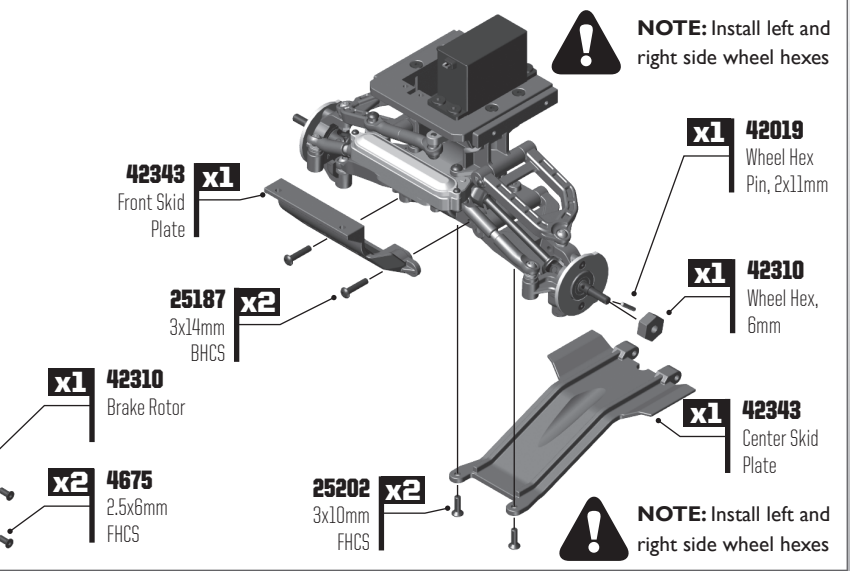
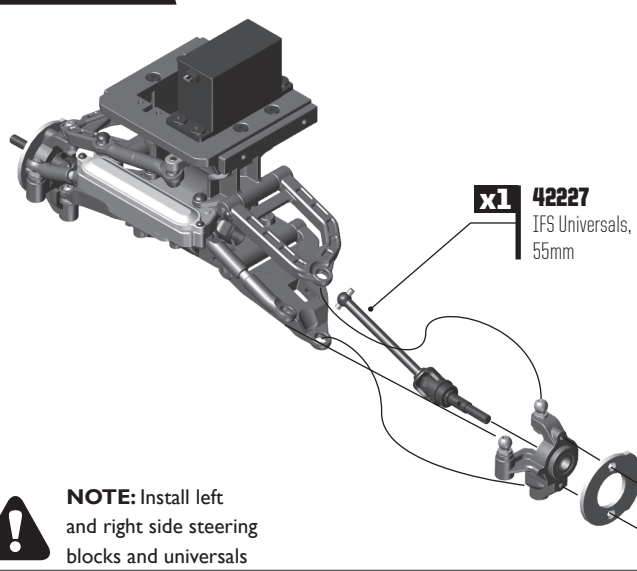
NOTE: Check the rod end angles before installation



GATE 07 CHASSIS BUILD



GATE 08 CHASSIS BUILD



GATE 09 CHASSIS BUILD

42021 Drive Shaft Pin, 2x11mm (x2)

42020 Drive Shaft, Female (33mm, 42mm) (x1)

31532 3x8mm BHCS (x2)

42021 Drive Shaft, Male, CVA (x2)

42021 Drive Shaft, Female, CVA (x2)

42021 Drive Shaft Barrel (x2)

42020 Pin Retainer, Short (x1)

42018 Drive Shaft, Male (75mm, rear) (x1)

42020 Drive Shaft, Male (48mm, 60mm) (x1)

42020 Pin Retainer, Long (x1)

42020 Gearbox Side

42020 Axle Side

42020 Pin Retainer, Long (x1)

NOTE: Build a front and rear drive shaft

Drive Shaft Lengths

	Front (mm)	Rear (mm)
Female 1	33	33
Female 2	33	42
Male	48	75

GATE 10 CHASSIS BUILD

42022 Screw Pin (x1)

42022 Screw Pin (x1)

THREAD LOCK #1596

42022 Screw Pin (x1)

GATE 11 CHASSIS BUILD

25203 3x12mm FHCS (x2)

42254 Shock Mount Front, Right (x1)

4689 3x16mm Set Screw (x1)

42314 Drive Shaft, Male (46mm, 60mm) (x1)

25211 3x10mm BHCS (x2)

31531 3x6mm, BHCS (x1)

42257 Chassis Rail Left (x1)

31532 3x8mm BHCS (x1)

42251 Trailing Arm Mount, Left (x1)

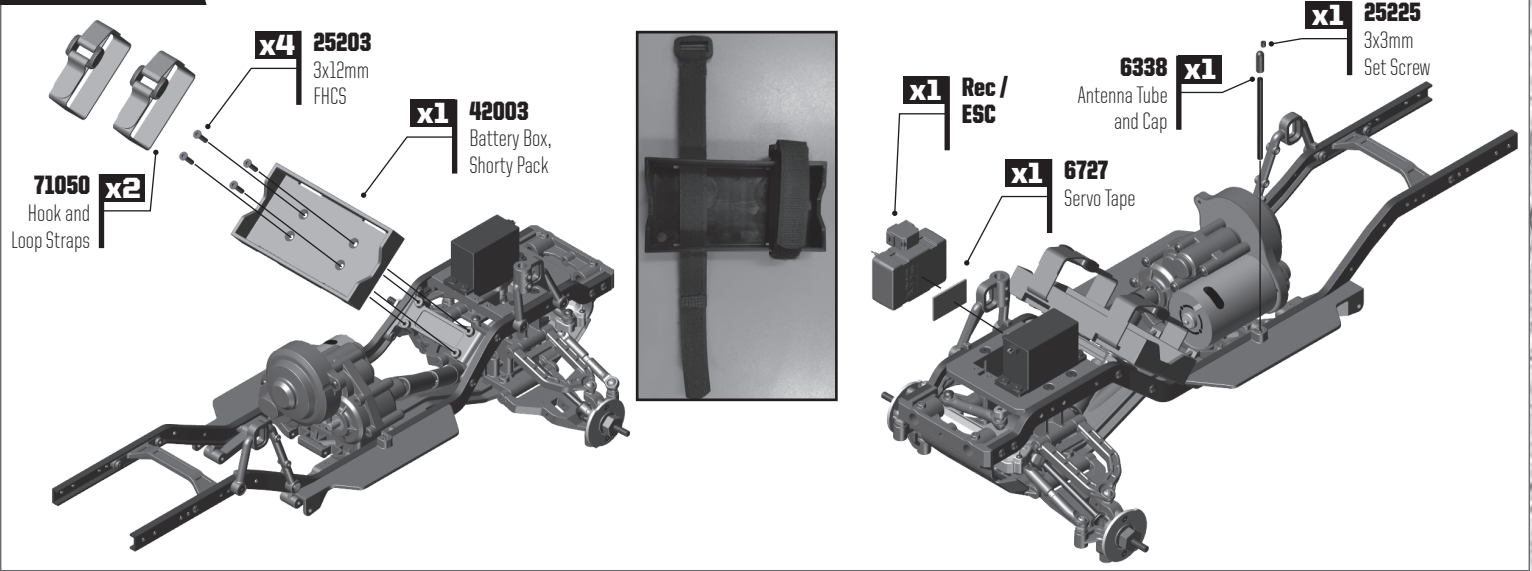
42251 Floor Board, Left (x1)

89203 3x16mm, BHCS (x2)

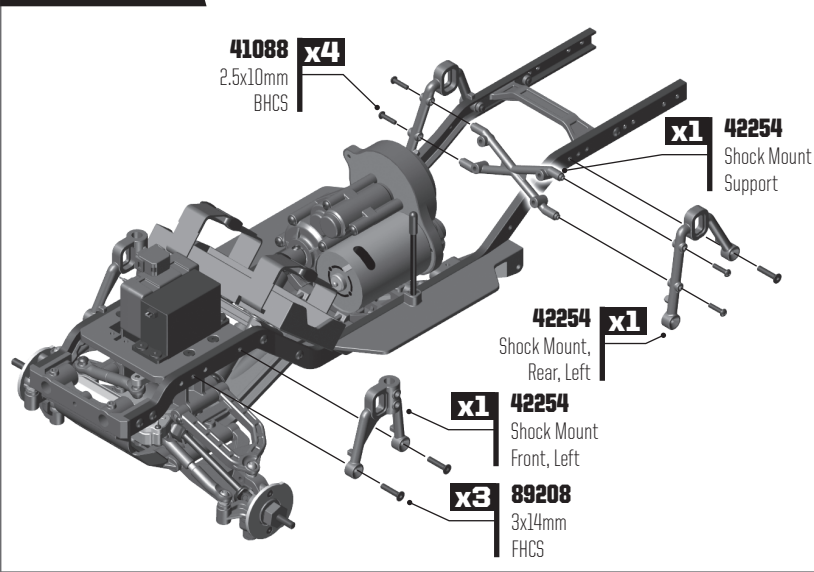
25211 3x10mm, BHCS (x2)

31532 3x8mm, BHCS (x2)

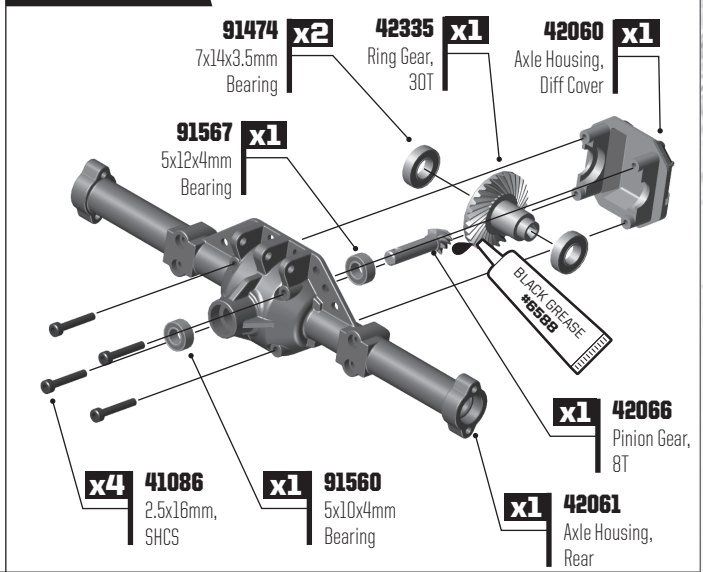
GATE 12 CHASSIS BUILD



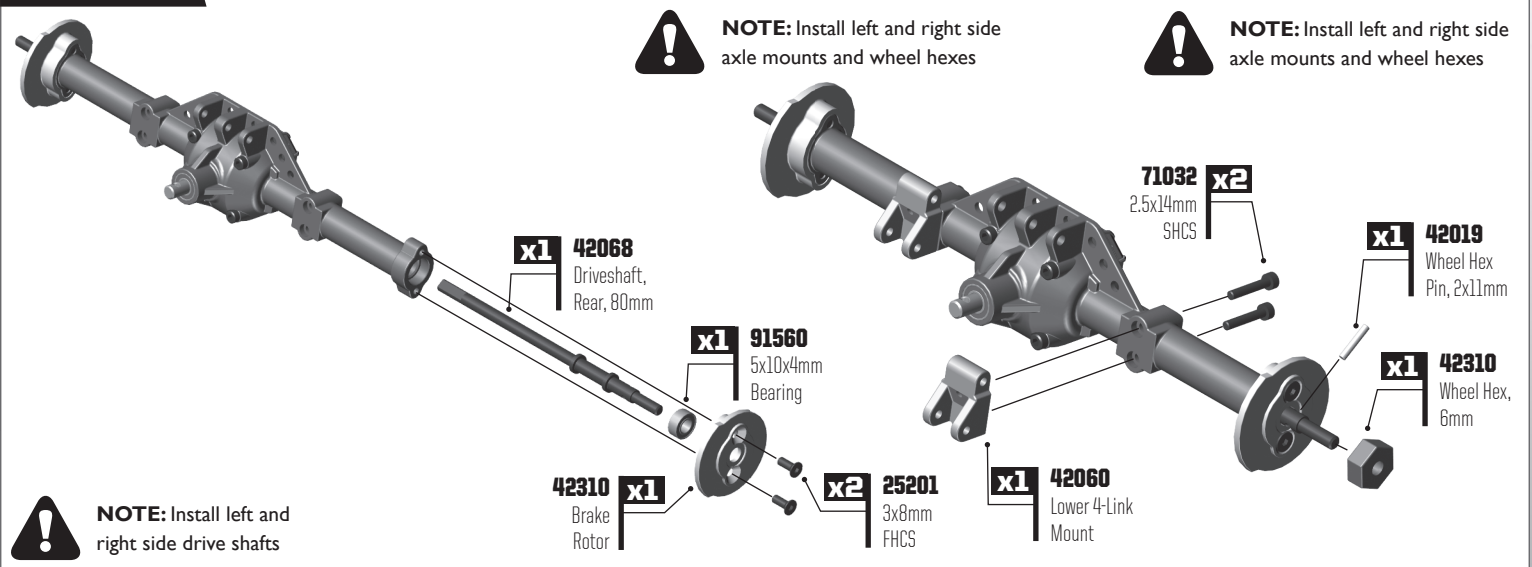
GATE 13 CHASSIS BUILD



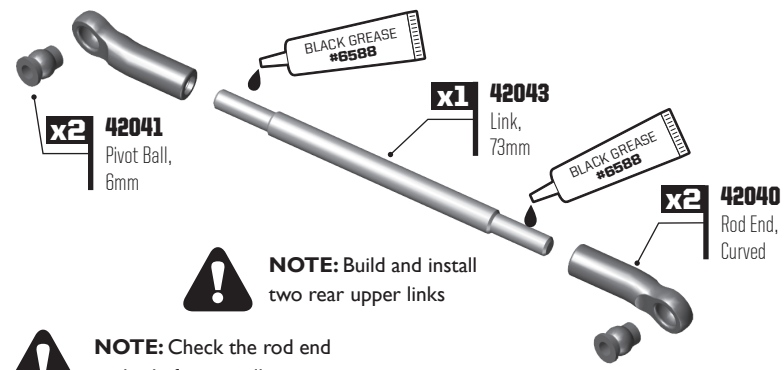
GATE 01 REAR AXLE BUILD



GATE 02 REAR AXLE BUILD

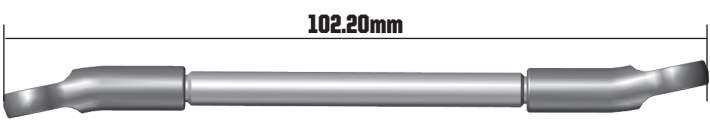


GATE 03 REAR AXLE BUILD

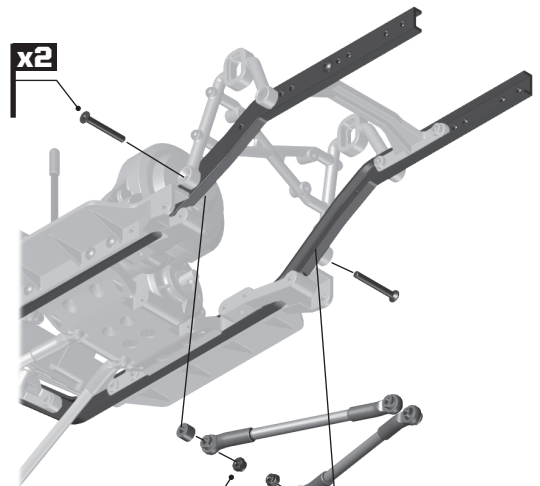


NOTE: Build and install two rear upper links

NOTE: Check the rod end angles before installation



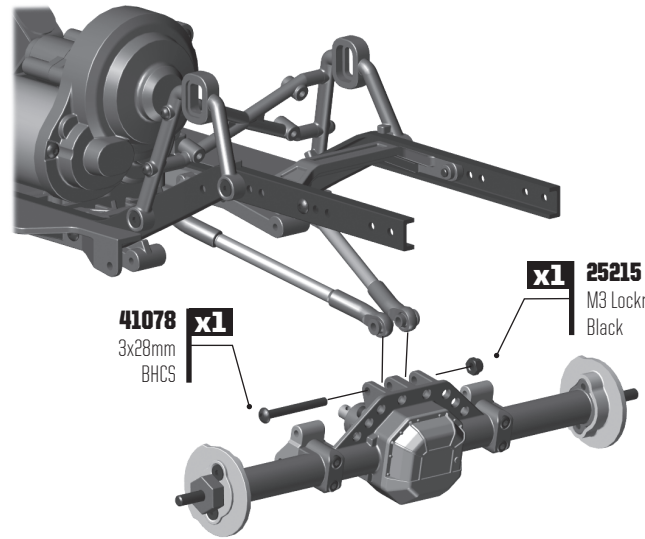
x2 89233 3x24mm FHCS



x2 25215 M3 Locknut, Black

x2 42260 Spacer 5mm

GATE 04 REAR AXLE BUILD

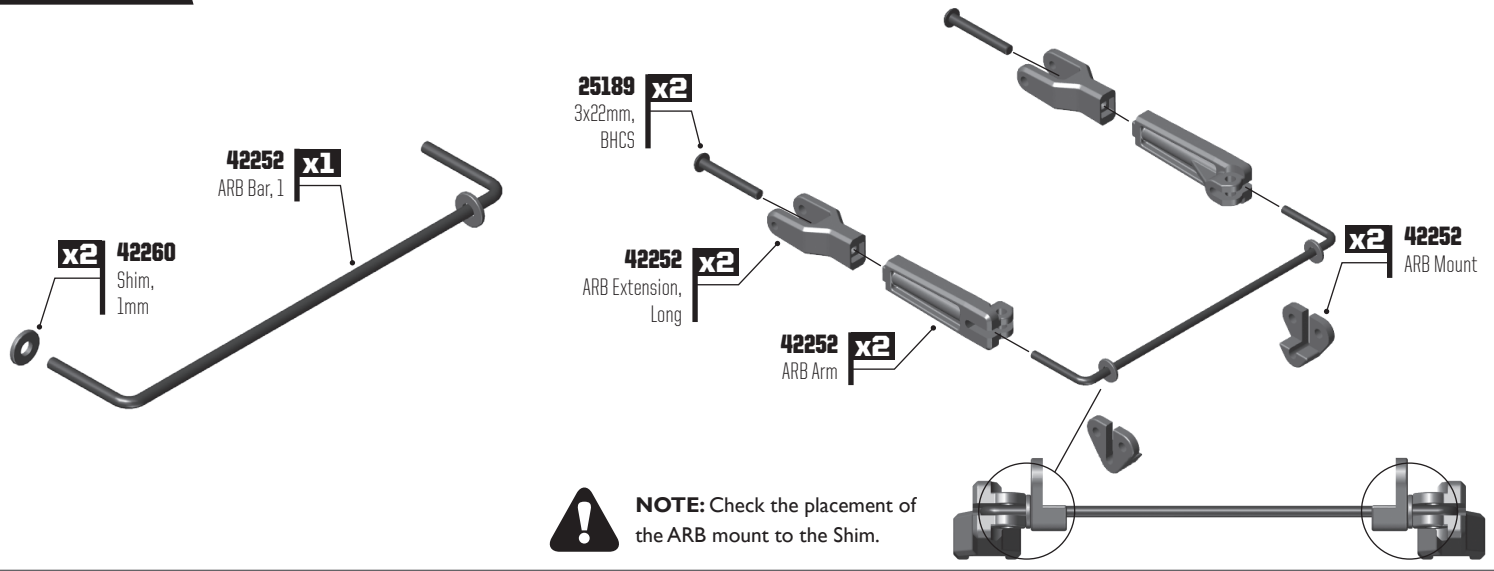


x1 42252 Drop Link, ARB

x2 42041 Pivot Ball, 6mm

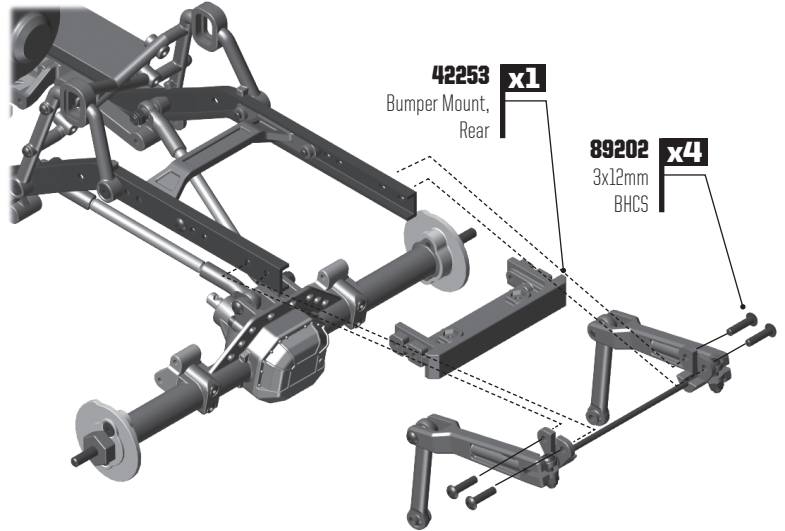
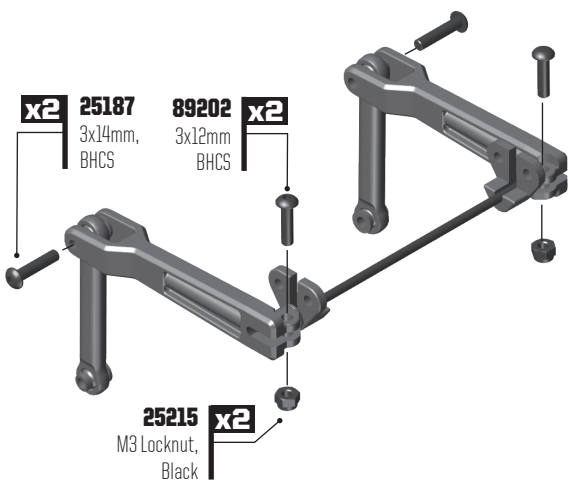
NOTE: Build and install two drop links

GATE 05 REAR AXLE BUILD

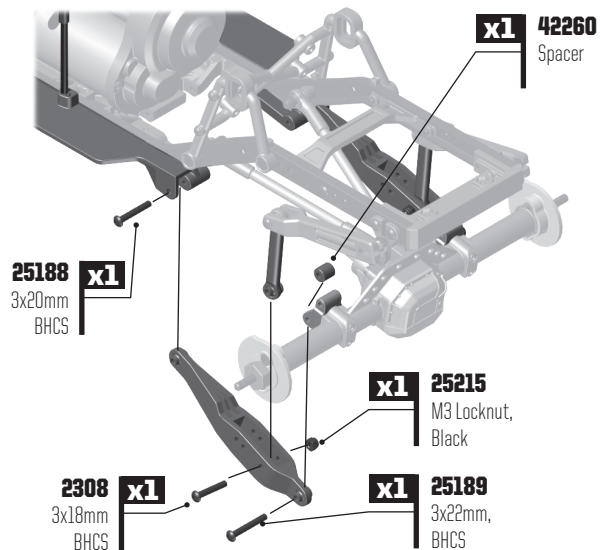
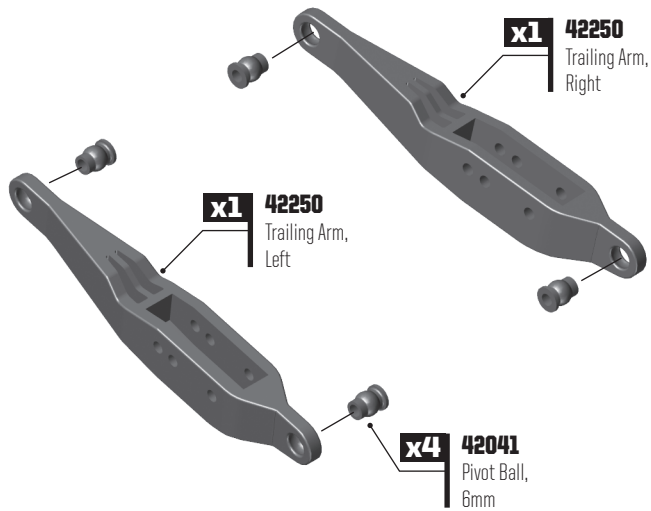


NOTE: Check the placement of the ARB mount to the Shim.

GATE 06 REAR AXLE BUILD



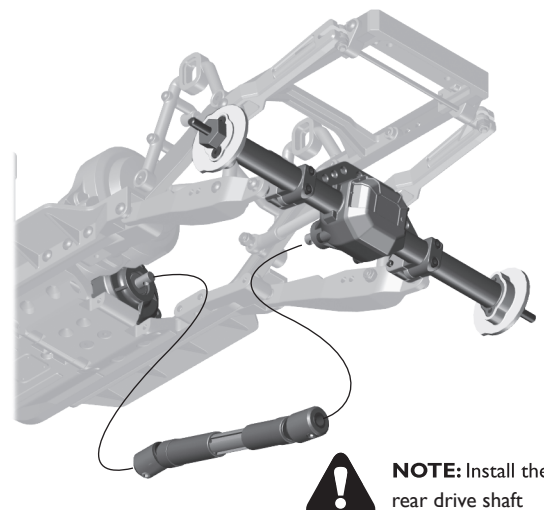
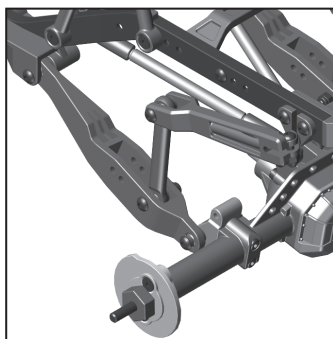
GATE 07 REAR AXLE BUILD



GATE 08 REAR AXLE BUILD



NOTE:
Build and install two
rear trailing arms.
Note the orientation

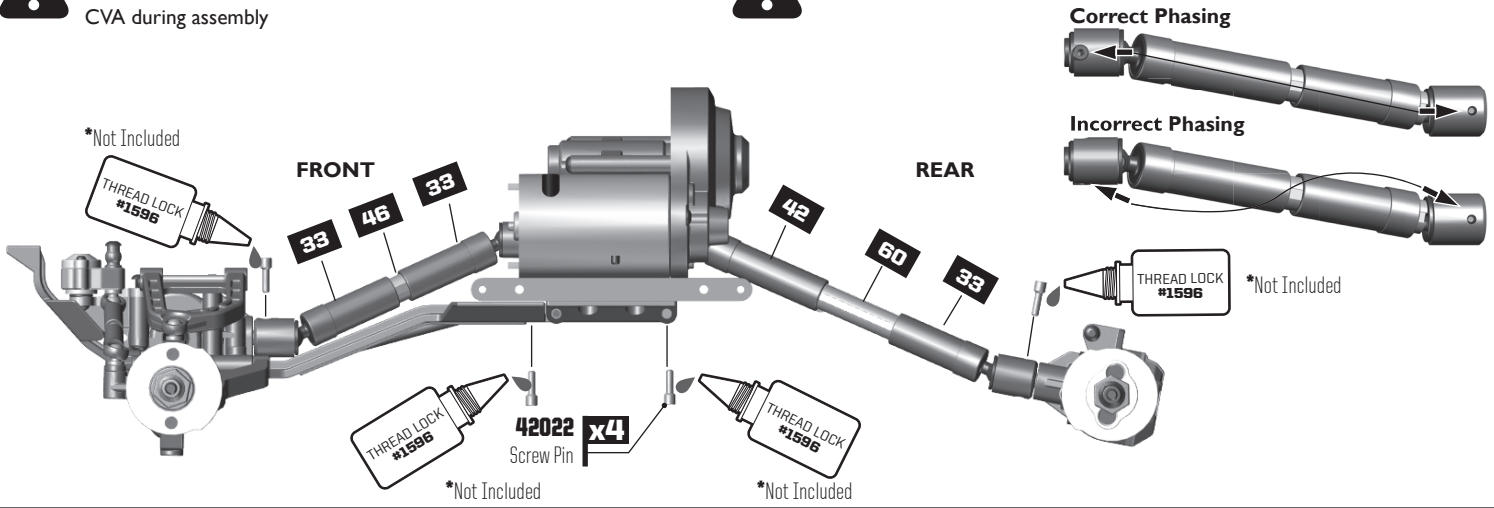


NOTE: Install the
rear drive shaft

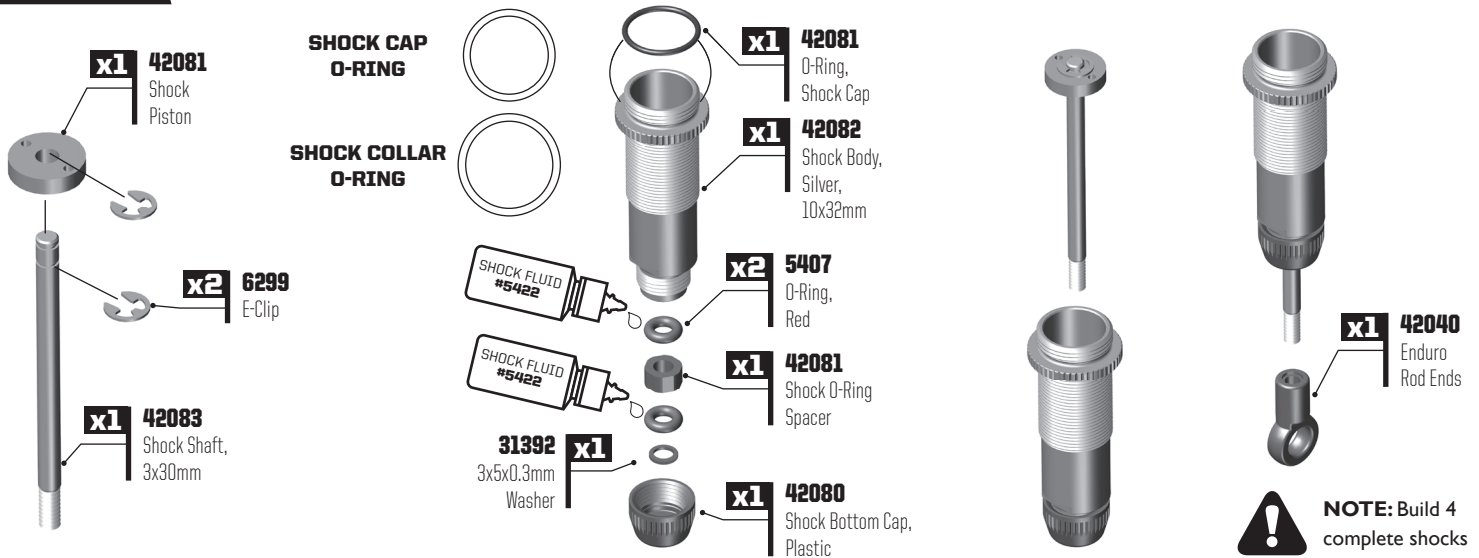
GATE 09 REAR AXLE BUILD

NOTE: Make sure the screw pins are aligned with each female CVA during assembly

NOTE: Make sure the phasing of the drive shafts is correct when installing them to the axles and gearbox.



GATE 01 SHOCK BUILD

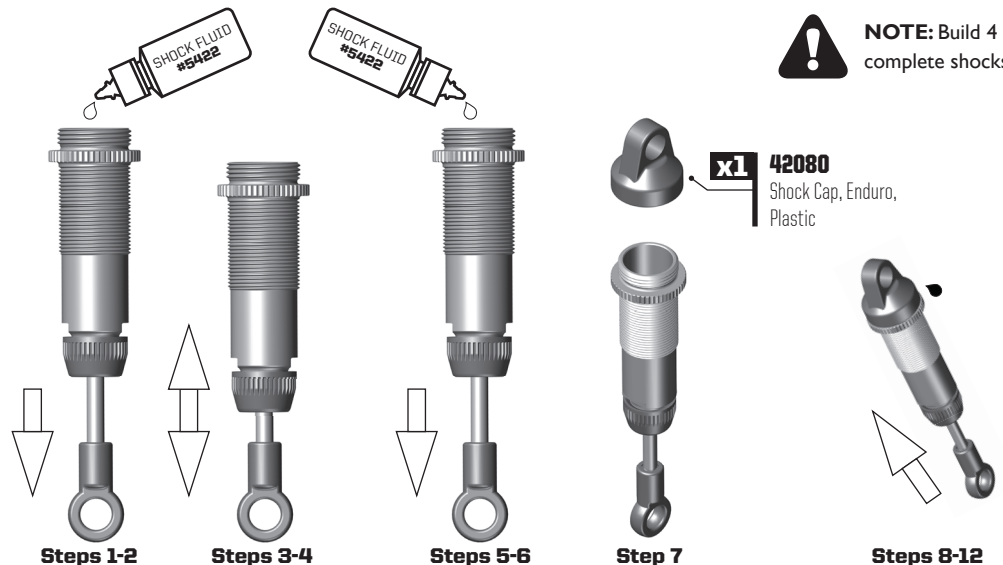


GATE 02 SHOCK BUILD

Shock Bleeding Steps:

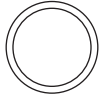
1. Pull shock shaft down.
2. Fill shock body 3/4 full with shock fluid.
3. Slowly move the shock shaft up and down to remove air from under piston.
4. Wait for bubbles to come to surface.
5. Fill shock body to top with silicone fluid.
6. Place a drop of oil in the cap and on cap threads.
7. Install cap and tighten completely.
8. Slowly compress shaft all the way to the top. If there is pressure at the top of the stroke, there is too much oil or air. You must bleed it out.
9. Slowly pull shaft out.
10. Unscrew the cap 3/4 turn and tilt the shock at a slight angle.
11. Slowly compress the shaft to push out excess oil and air. You should see bubbles coming out from under the cap.
12. With the shaft compressed, tighten the cap and re-check for pressure at the top of the stroke. If there is still pressure, repeat steps 9 thru 11.

NOTE: Build 4 complete shocks

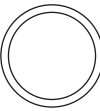


GATE 03 SHOCK BUILD

SHOCK CAP
O-RING



SHOCK COLLAR
O-RING



x1 42081
O-Ring,
Shock Collar

x1 42079
Shock Collar,
Black, Aluminum



x1 42089
Front Shock Spring,
Gray, 1.49 lb/in, 63mm

x1 42090
Rear Shock Spring,
Blue, 2.09 lb/in, 63mm



Pro Tip: Use your finger to rub shock fluid on the o-ring for smoother adjustment.



x1 42080
Shock Spring Cup,
Plastic

3mm



NOTE: Build 4 complete shocks

GATE 04 SHOCK BUILD

x1 42256
Nut

x1 42254
Insert

x1 42260
Shim,
3mm

x1 42041
Pivot Ball,
Upper Shock

x1 41091
3x20mm
LP SHCS

x1 4689
3x16mm,
Set Screw

x1 42041
Pivot Ball,
6mm



x1 42256
Nut

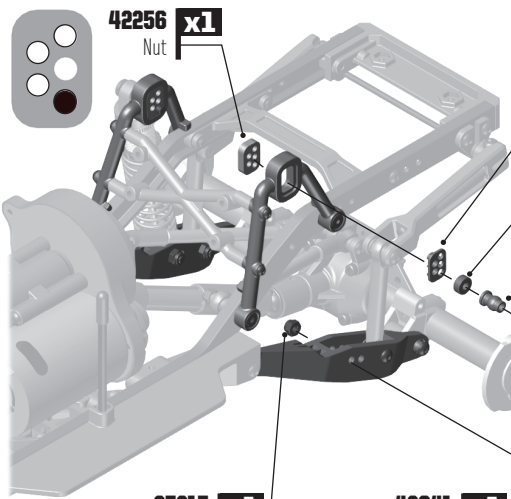
x1 42254
Insert

x1 42260
Shim,
3mm

x1 42041
Pivot Ball,
Upper Shock

x1 41091
3x20mm
LP SHCS

x1 2308
3x18mm
BHCS



x1 25215
M3 Locknut

x1 42041
Pivot Ball,
6mm

GATE 01 BODY BUILD

x1 89233
3x24mm
FHCS

x1 42162
Winch
Motor

x1 42162
Winch
Base

x1 42162
Winch Cap

x1 42162
Winch
Spool

x1 89210
3x20mm
FHCS

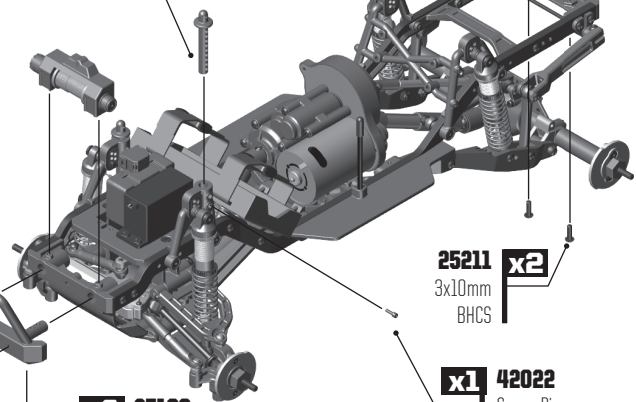
x1 42162
Bumper

x1 42162
Fairlead

x2 89222
2.5x8mm
SHCS

x1 42009
Body Mount,
Short Pin

x2 42270
Body Post,
Rear



x2 25211
3x10mm
BHCS

x2 25188
3x20mm
BHCS

x1 42022
Screw Pin

GATE 02 BODY BUILD

Wheels

- #42100 - Method 701, 1.9" Bronze
- #42101 - Method 701, 1.9" Black

Battery **x1**

- x1 42101** Method 701, 1.9" Inner Wheel, Black
- x1 42275** Tire, General Grabber A/T X
- x1 42275** Tire Insert
- x1 42101** Method 701, 1.9" Hex Adapter, Black
- x1 42101** Method 701, 1.9" Outer Wheel, Black
- x1 42101** Beadlock Ring
- x6 41088** 2.6x10mm BHCS

NOTE: Install #41088 screws in a crossing pattern

- x2 25391** FT Locknuts, M4, Flanged, Blue Aluminum
- x2 42109** Wheel Cap, Black

GATE 03 BODY BUILD

Bodies

- #42354 - RTR Tan
- #42355 - Clear
- #42356 - Accessories
- #42357 - Zuul Decals

- x2 31520** 2.5x6mm BHCS
- x1 42356** Searchlight Bar
- x4 31522** 2.5x10mm BHCS
- x4 31532** 3x8mm BHCS
- x2 42356** Searchlight Mounts
- x2 42356** Headlight Mounts
- x1 42356** Searchlight
- x1 42356** Searchlight
- x1 42356** Searchlight Cover
- x7 42356** Searchlight Covers
- x1 42356** Searchlight
- x1 42356** Grill
- x2 42356** Headlight Lenses
- x2 42356** Headlight LED Mount
- x2 42356** 2x6mm BHCS
- x1 42355** Zuul Body, Clear
- x2 42356** Door Handle Grommet
- x2 42356** Door Handle

GATE 04 BODY BUILD

- x2 31522** 2.5x10mm BHCS
- x2 81257** 3x6mm Set Screw
- x2 42356** Side Mirror
- x2 42356** Side Mirror Pivot
- x2 42356** Side Mirror Mount
- x2 42356** Turn Signal
- x2 31520** 2.5x6mm BHCS
- x2 42356** Roll Bar
- x2 41089** 3x6mm BHCS
- x2 21173** Body Clip, Small
- x2 5407** O-Ring
- x4 6332** Body Clip

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.

- | | |
|--|---|
| <input type="checkbox"/> Vehicle with charged battery | <input type="checkbox"/> 1-2 spare charged batteries for your rig |
| <input type="checkbox"/> Radio with charged batteries | <input type="checkbox"/> Spare radio batteries |
| <input type="checkbox"/> Check all nuts and screws and tighten them. Including wheel nuts! | <input type="checkbox"/> Backpack |
| <input type="checkbox"/> Spare parts (nuts, screws, body clips, and anything that may wear or break) | <input type="checkbox"/> Water (2 liters per person minimum) |
| <input type="checkbox"/> Sturdy shoes (Hiking boots or something with grip and ankle support) | <input type="checkbox"/> Element hat or beanie |
| <input type="checkbox"/> Element hoodie or jacket | <input type="checkbox"/> Snacks (protein bars, trailmix, etc.) |
| <input type="checkbox"/> Sunscreen | <input type="checkbox"/> Bug spray |
| <input type="checkbox"/> Nut drivers (Factory Team Nut Drivers #1507, 1508) | <input type="checkbox"/> Lip balm |
| <input type="checkbox"/> Allen wrenches (Factory Team Hex Driver set #1655) | <input type="checkbox"/> Cell phone and charger |
| <input type="checkbox"/> Headlight or flashlight with spare batteries | <input type="checkbox"/> Compact action camera |
| <input type="checkbox"/> Camera | <input type="checkbox"/> 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 hobbyist 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 vehicles 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.**

GATE 01 STEALTH X: 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 X 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 descents, 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 X:

The Stealth X gearbox allows the driver to change the front-to-rear drive ratios with 3 separate ratio adjustments to the rear drive shaft. The driver has the option to flip the gearbox direction (motor mount facing the front). The optional inverse top shaft (#42024) is required.

Please Note:

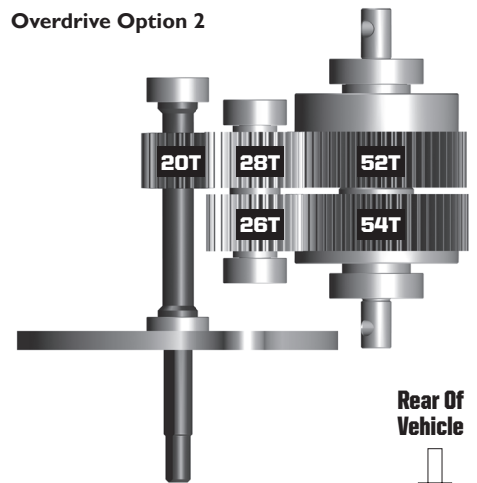
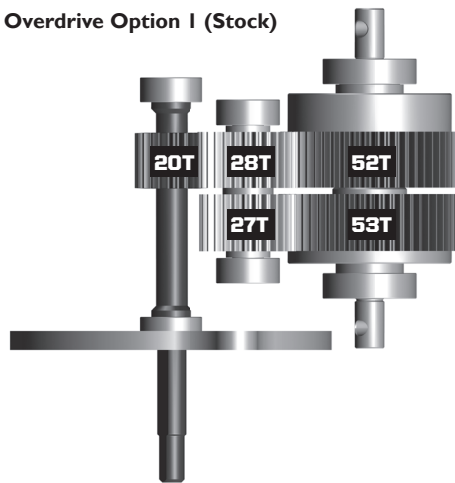
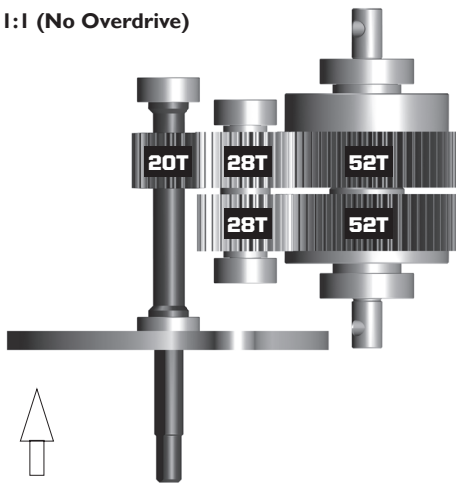
The 20T top shaft, 28T idler gear, and 52T drive gear will always be meshed together in all 6 gearbox configurations.

GATE 02 STEALTH X: BUILD CONFIGURATION: MOTOR MOUNT FACING REAR (STOCK)

I:1 (No Overdrive)

Overdrive Option 1 (Stock)

Overdrive Option 2

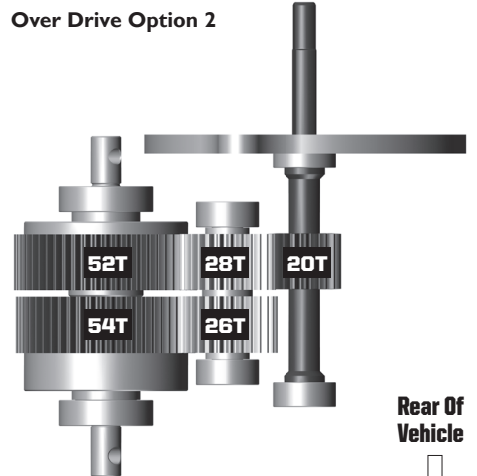
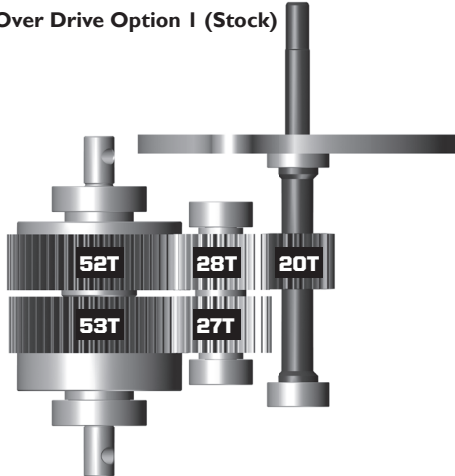
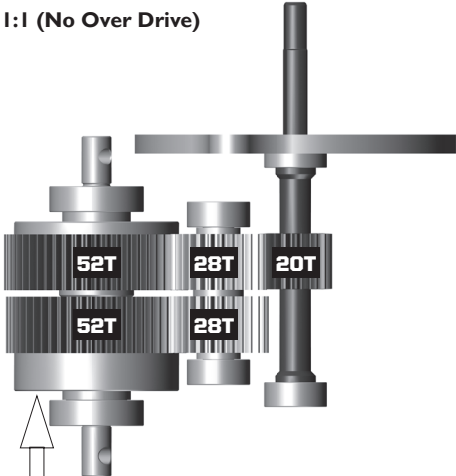


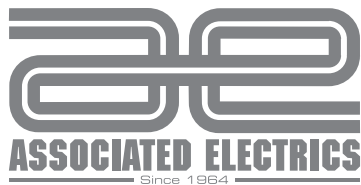
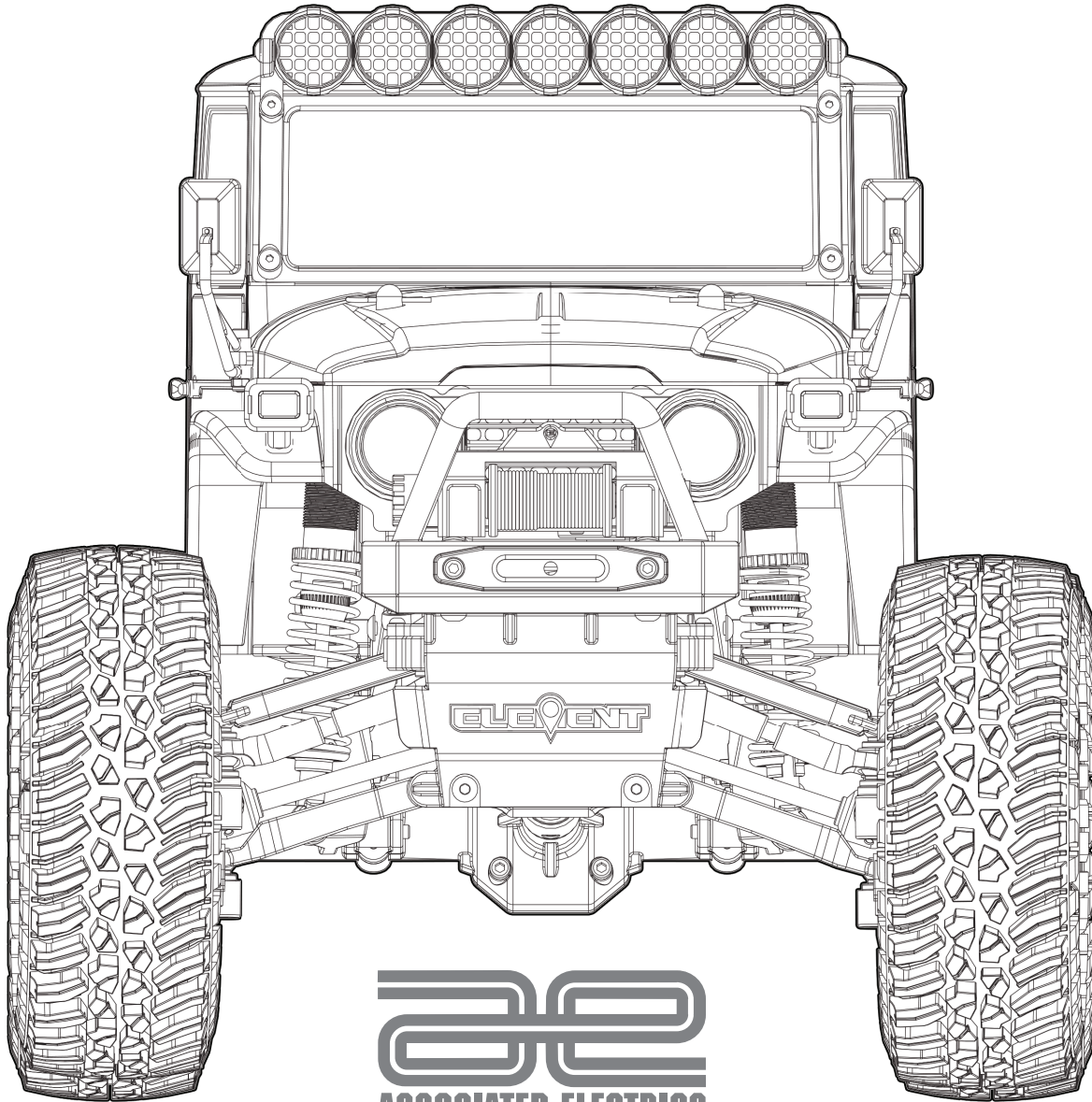
GATE 03 STEALTH X: BUILD CONFIGURATION: MOTOR MOUNT FACING FRONT (OPTIONAL - REQUIRES #42024 - TOP SHAFT)

I:1 (No Over Drive)

Over Drive Option 1 (Stock)

Over Drive Option 2





ASSOCIATED ELECTRICS, INC.
21062 BAKE PARKWAY LAKE FOREST, CA 92630 USA

CALL: (949) 544-7500 - FAX: (949) 544-7501
CHECK OUT THE FOLLOWING WEB SITES FOR ALL OF OUR KITS,
CURRENT PRODUCTS, NEW RELEASES, SETUP HELP, TIPS, AND RACING INFO!
WWW.ASSOCIATEDELECTRICS.COM

FOLLOW US ON SOCIAL MEDIA



TeamAssociated
ReedyPower
ElementRC
FactoryTeam51



@TeamAssociatedRC
@ReedyPower
@Element_RC
@FactoryTeam_RC



@Team_Associated
@ReedyPower



@Associated_Electrics



TeamAssociatedRC
ElementRC



TeamAssociated
Reedy
Element-rc