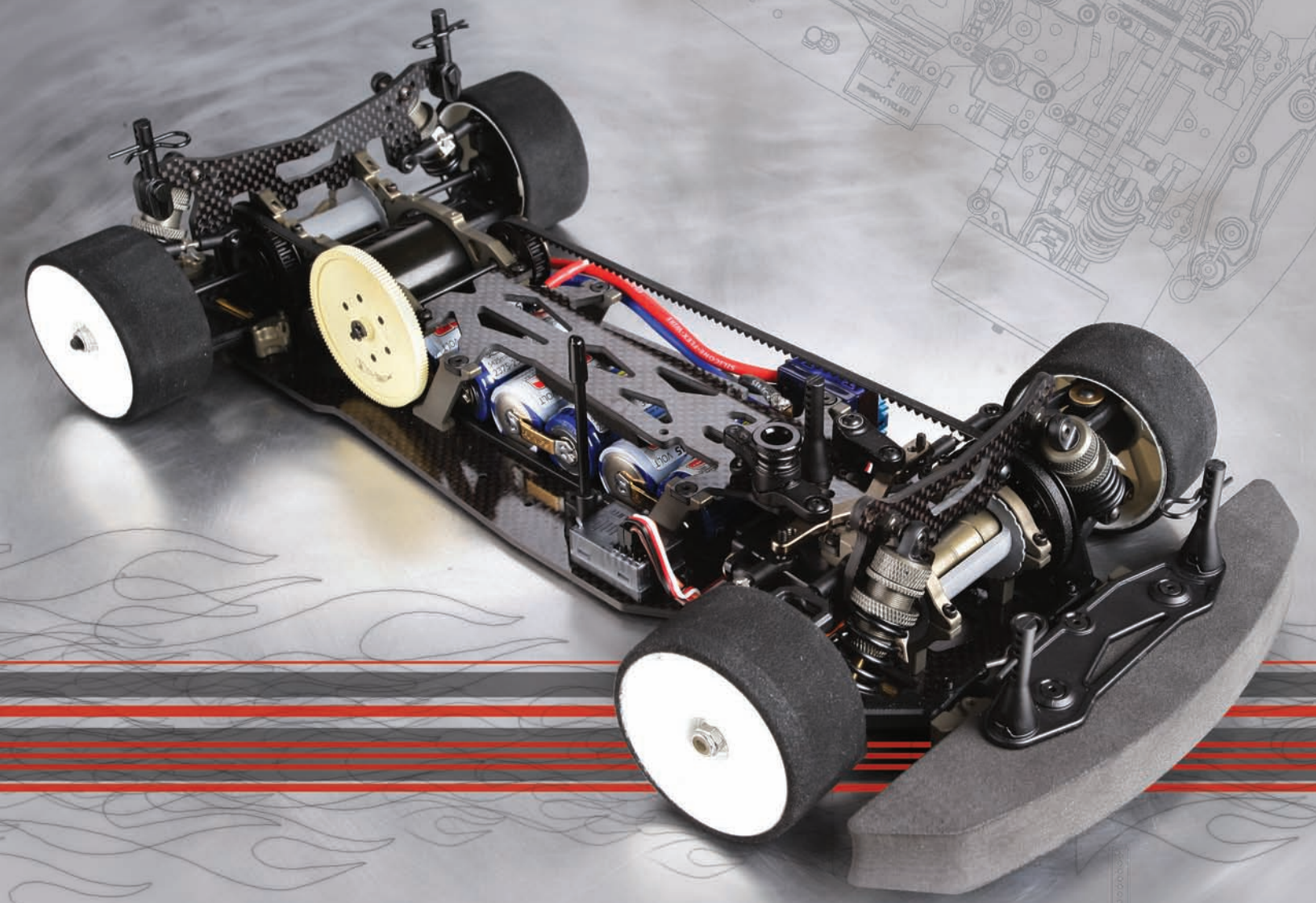
JRXS TYPE R

1/10th Scale Expert Racing Sedan

Owner's Manual



TEAM LOSI

ALWAYS RACING TOWARDS THE FUTURE.

Welcome Team Losi *JRX-S Type R* Owner!

Thank you for selecting the *JRX-S Type R* as your new racing sedan. As you probably know, during the development of the *Type R*, it posted outstanding race results and distinguished itself as a remarkable racing chassis that is both easy to drive and tune for a wide variety of track conditions. Every effort has been made to produce a kit that offers you the most competitive chassis that is also easy to build and maintain. The simple bag-by-bag assembly sequence and easily followed instructions and drawings combined with Team Losi's world famous quality fitting parts will make building the *JRX-S Type R* a most enjoyable project.

Before you open the first bag, or start assembly, please take a moment to read through the following instructions. This will familiarize you with the various parts, assembly tips, and descriptions as well as the tools needed. Taking an extra moment before starting can save a good deal of time and assure proper assembly.

Good luck and good racing,

Team Losi Research and Development Team

JRX-S Type R COMPLETED KIT SPECIFICATIONS

Overall Chassis Length: 14-7/8*in* (378*mm*)	Wheelbase: 10-3/16*in* (259*mm*)	*Front Track Width: 7/5/16*in* (186*mm*)
Overall Length w/Tires: 16-7/8*in* (429*mm*)	*Overall Height: 4-1/2*in* (114*mm*)	*Rear Track Width: 7-3/8*in* (188*mm*)

Note: Final kit weight will vary depending on accessories used.

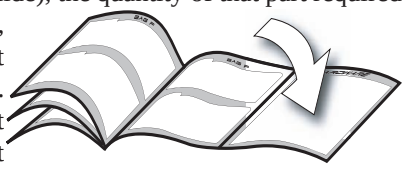
**All measurements taken at ride height (4mm).*

Table 1: JRX-S Type R Completed Kit Specifications.

Kit/Manual Organization:

The kit is composed of different bags marked A through F. Each bag contains all of the parts necessary to complete a particular section of the kit. Some of these bags have sub-assembly bags within them. It is essential that you open only one bag at a time and follow the correct assembly sequence, otherwise you may face difficulties in finding the correct part. It is helpful to read through the instructions for an entire bag prior to beginning assembly. Next to each of the step numbers is a check box. At the completion of each step, place a check in this box so that if you must stop and come back to the assembly, you will be able to pick up where you left off.

For your convenience, an actual-size Hardware Identification Guide is included as a fold-out page at the back of this manual. Hardware that is not easily differentiable in each step is called out with an icon which contains a small picture of the part genre (referenced on the Hardware Identification Guide), the quantity of that part required for what is **shown** in the step, and the size or name of that part and the LOSA-Number. To check a part, hold it against the silhouette until the correct part is identified. Associated with each of these parts, in the Hardware Identification Guide, is a LOSA-Number which is used when ordering replacement parts for your *JRX-S Type R*. In some cases, extra hardware has been supplied for parts that may be easy to lose.



Components used in each step are identified by their relative LOSA-Number and the component's name. With the exception of a few parts, these are not referenced in the Hardware Identification Guide.

The molded parts in Team Losi kits are manufactured to demanding tolerances. When screws are tightened to the point of being snug, the parts are held firmly in place. For this reason, **it is very important that screws not be overtightened in any of the plastic parts.**

In some steps there will be a filled black circle with a white number. These indicate the specific order by which assembly must occur. In cases where steps are repeated (front/rear or left/right) these numbers may be omitted. Please note that these numbers will not call out every sub-step required for the step's assembly procedures, they will only highlight the critical order required for assembly.

In each step, there are specific "Detail Icons" (shaped like a stop sign) that call out critical precautions or assembly tips for the process. There is a reference key that describes the meaning of each of the icons located on the fold-out Hardware Identification Guide at the back of this manual.

To ensure that parts are not lost during construction, it is recommended that you work over a towel or mat to prevent parts from rolling away.

IMPORTANT SAFETY NOTES:

1. Select an area for assembly that is away from the reach of small children. *Some parts in this kit are small and can be swallowed by children, causing choking and possible internal injury; PLEASE USE CAUTION!*
2. The shock fluid and greases supplied should be kept out of children's reach. *They are not intended for human consumption!*
3. Exercise care when using any hand tools, sharp instruments, or power tools during construction.
4. Carefully read all manufacturer's warnings and cautions *for any chemicals, glues, or paints that may be used for assembly and operating purposes.*

TOOLS REQUIRED FOR ASSEMBLY

Team Losi has supplied all necessary Allen wrenches and a special wrench that is needed for assembly and adjustments. The following common tools will also be required: Needle-nose pliers, regular pliers, hobby knife, scissors or other body cutting/trimming tools, and a soldering iron may be necessary for radio installation. 3/16*in* and 1/4*in* nut drivers are optional and a 7*mm* nut driver is required for final assembly.

RADIO/ELECTRONICS

A suggested radio layout is provided in this manual. Your high performance R/C center should be consulted regarding specific questions pertaining to radio/electrical equipment.

HARDWARE IDENTIFICATION

When in question, use the Hardware Identification Guide at the back of this manual.

- For screws, the prefix number designates the thread size and number of threads per inch (i.e., 4-40 is a #4 size thread with 40 threads per inch). The second number, or fraction, designates the length of the screw. For cap head and button head screws, this number refers to the length of the threaded portion of the screw. For flat head and set screws, this number refers to the overall length of the screw.
- Bearings and bushings are referenced by the inside diameter (I.D.) x outside diameter (O.D.).
- Shafts and pins are designated by type (Roll, Solid) and referenced by diameter x length.
- Washers, Spacers and Shims are described by inside diameter or the screw size that will pass through the inside diameter x the thickness or by their designated application (i.e., Ball Stud washer is primarily used under a Ball Stud).
- Retaining Clips are sized by the shaft diameter that they attach to or by type (Body). The Hardware Icon associated with E/C-Clips only designates the part genre of clips, not the actual part.
- Nuts come in four types, Non-Flanged, Flanged (F), Plain, and Locking (L) (designated on the Hardware Icons). The prefix number designates the thread size and number of threads per inch. The second number, or fraction, designates the size of the hex. For example, L 4-40 x 1/4" designates a Lock nut that will thread onto a 4-40 screw using a 1/4" nut driver.
- Ball studs are described by the length of the neck between the base and the bottom of the ball (i.e., standard, short) and the length of the threaded portion.

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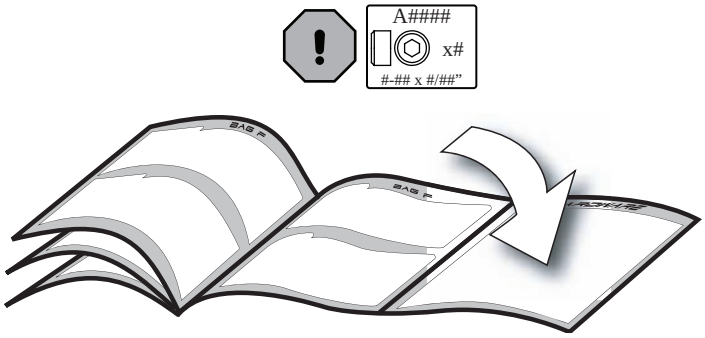
Please visit us at: www.TeamLosi.com

Team Losi is continually changing and improving designs; therefore, the actual part may appear slightly different than the illustrated part. Illustrations of parts and assemblies may be slightly distorted to enhance pertinent details.

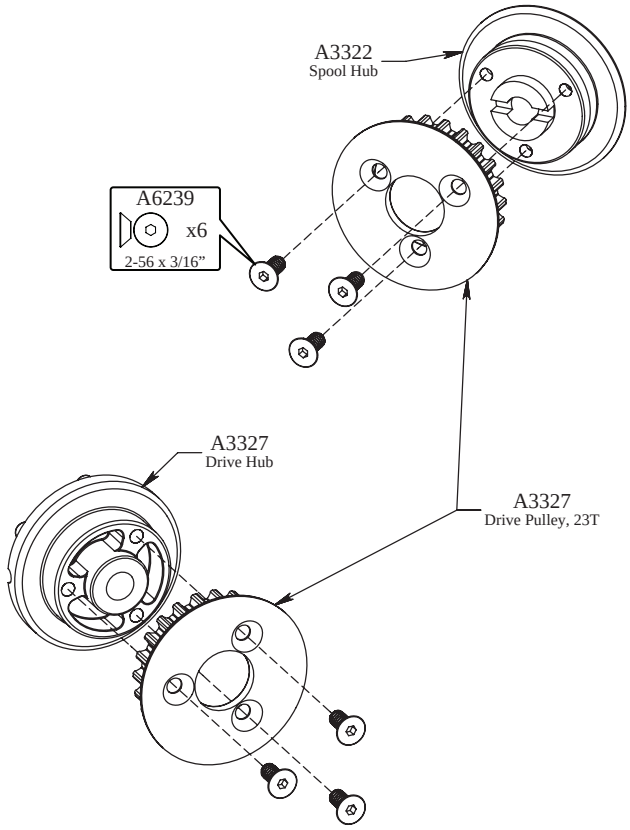
BAG A

❑ STEP A-00 *Fold-Out Hardware Page*

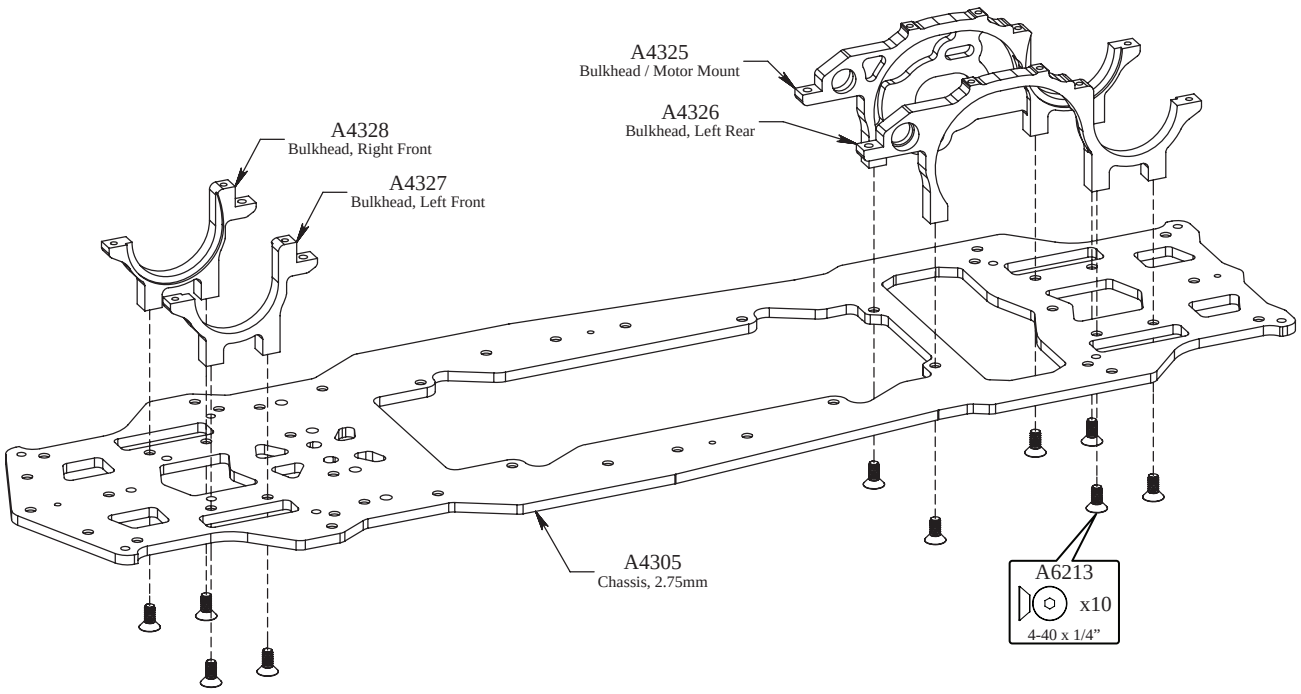
- Un-fold the Hardware Page and ***leave it out*** during the assembly process. Use this page to properly identify hardware in the individual steps. Here you will find pictures of hard-to-identify hardware that can be matched with the actual parts by laying them over the pictures.
- Also on this page are “Detail Icons” which provide you with pertinent information about the step that you are doing. These are in the shape of a STOP sign as a hint to stop and pay attention to the instructions.
- For more information, please read the “Kit/Manual Organization” section on Page *i* of this manual.
- Located on the back of this Hardware page it the *JRX-S Type R* Build Setup Sheet, filled out with the setup that this manual builds to. If any of the steps are confusing or difficult to see specific locations, use this Setup Sheet as a reference.



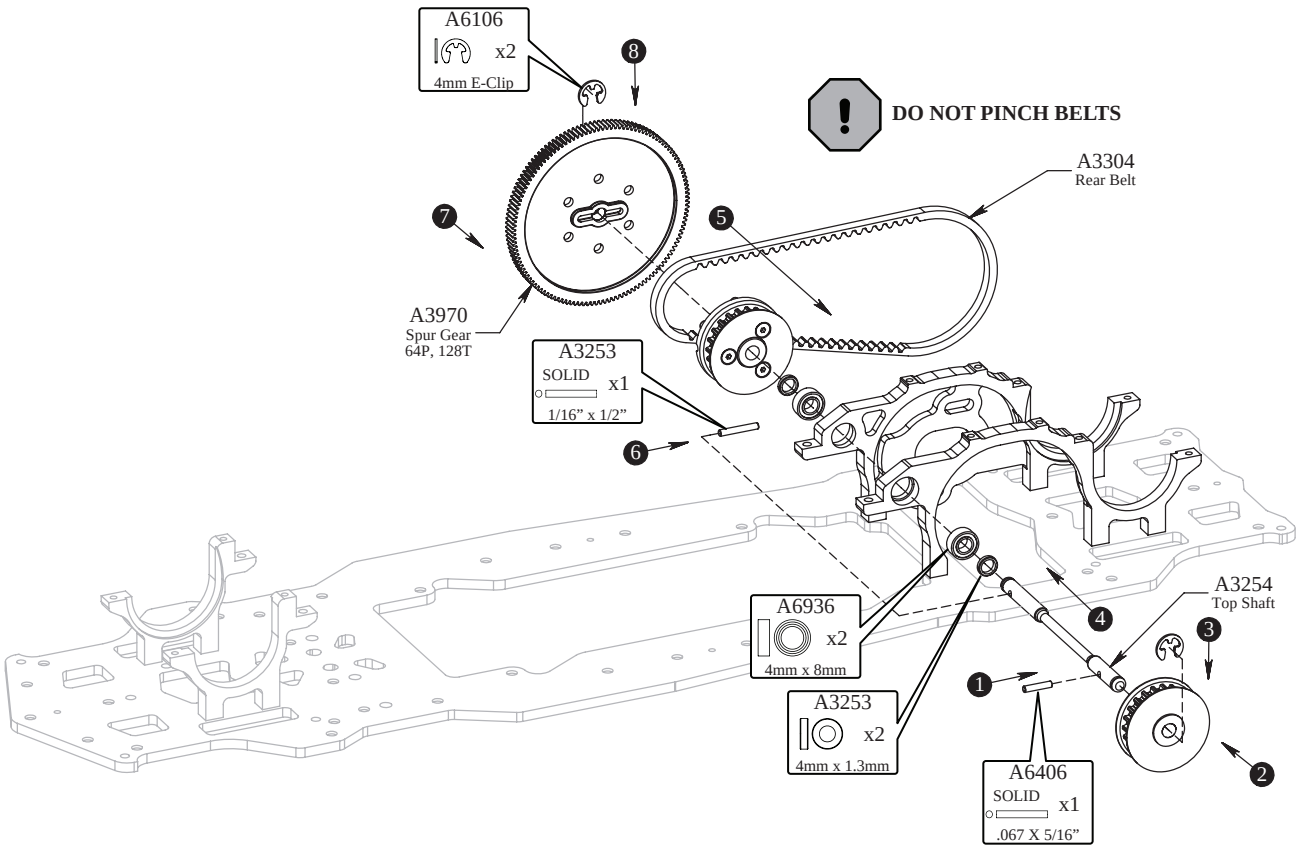
❑ STEP A-01 *Drive Pulley Assemblies*



❑ STEP A-02 *Bulkhead Installation*



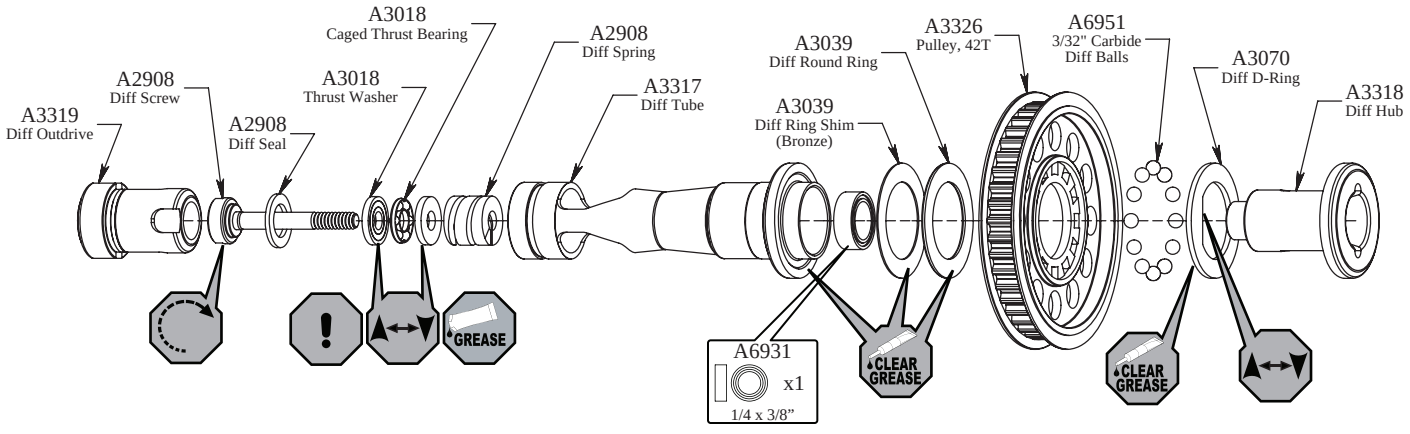
❑ STEP A-03 *Top Shaft Assembly*



❑ STEP A-04 *Differential Assembly*

- Apply a small amount of Clear Diff Grease to the Diff Hub, Diff Tube, and Diff Ring Shim before installing the Diff Rings.
- Apply enough Clear Diff Grease to the top side of the Diff Rings, or to both sides of recessed Ball section in the Diff Pulley (after Diff Balls are installed) to cover the Diff Balls when the Diff is assembled.
- Assemble the Diff and tighten until some resistance is felt, see the Final Checklist for final Diff adjustment procedures. **Note: Insert the Team Losi Flat Wrench into the Diff Hub and hold while tightening the Diff Screw.*

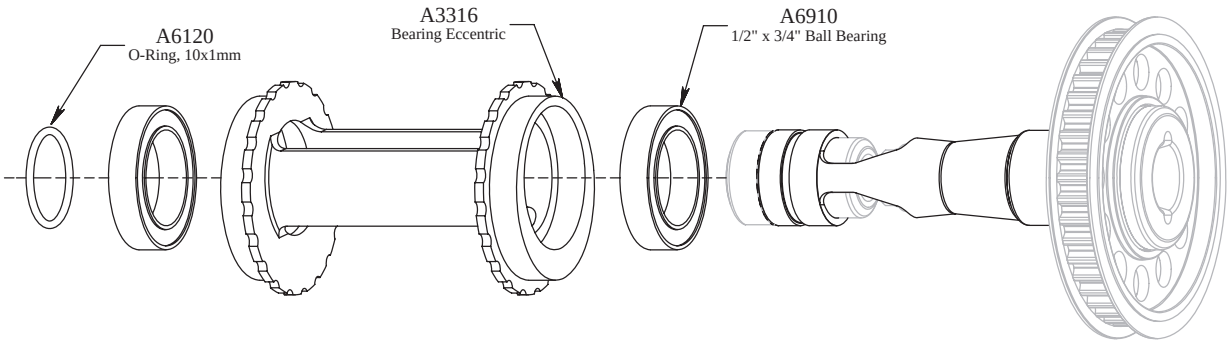
x2



- **CAUTION!** Some Thrust Bearing assemblies come bound with a small wire. This wire must be removed before installing the Thrust Bearing.
- Be sure to use the White Grease for the Thrust Bearing.
- When installing the Thrust Washers, notice that the two washers have different outer diameters and inner diameters. Be sure to use the Washer with smaller diameters next to the head of the Diff Screw.

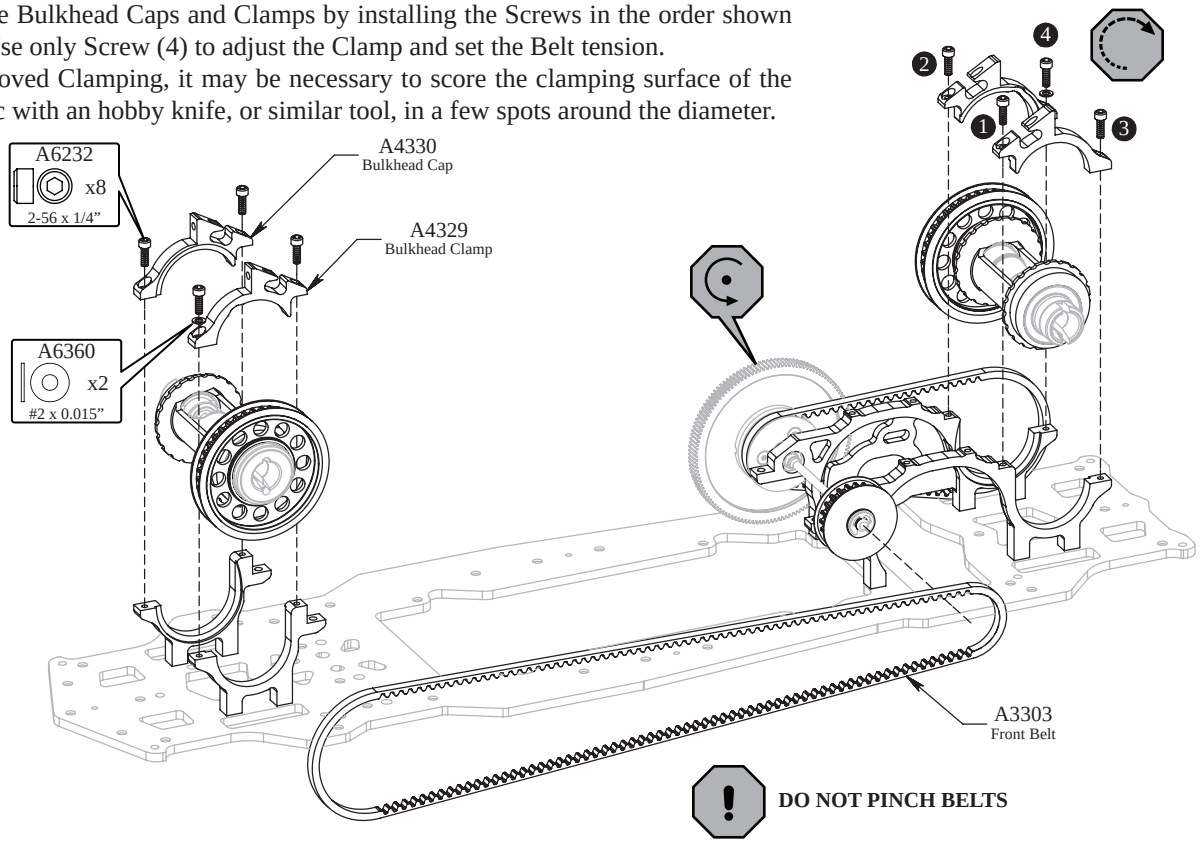
❑ STEP A-05 *Eccentric Assembly*

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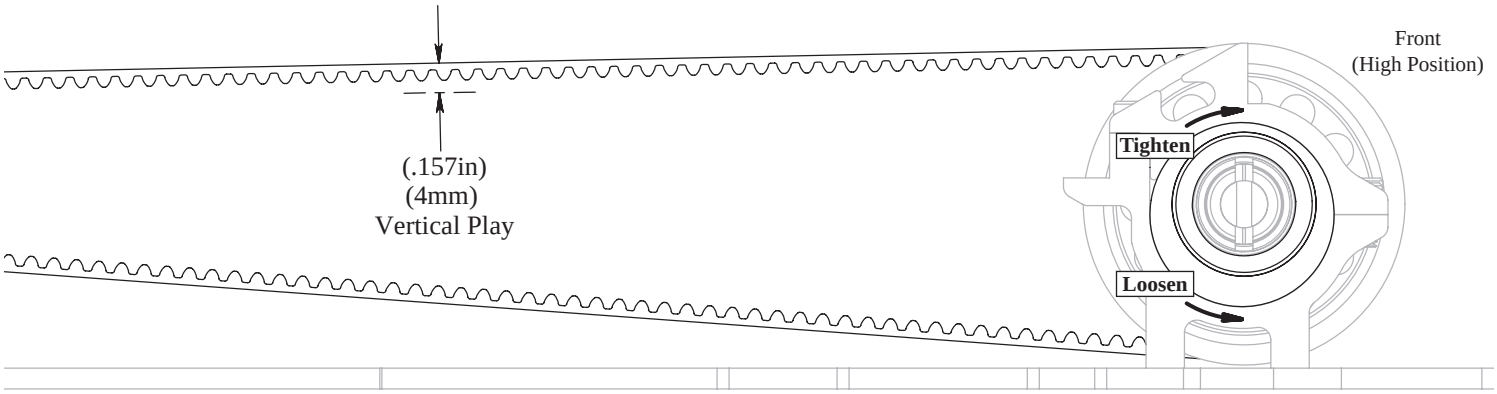


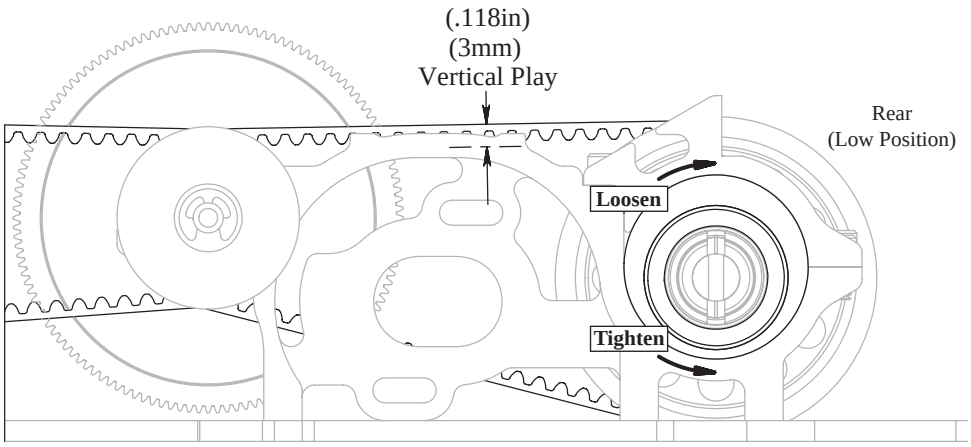
❑ STEP A-06 *Differential Installation*

- Install the Bulkhead Caps and Clamps by installing the Screws in the order shown below. Use only Screw (4) to adjust the Clamp and set the Belt tension.
- For improved Clamping, it may be necessary to score the clamping surface of the Eccentric with an hobby knife, or similar tool, in a few spots around the diameter.



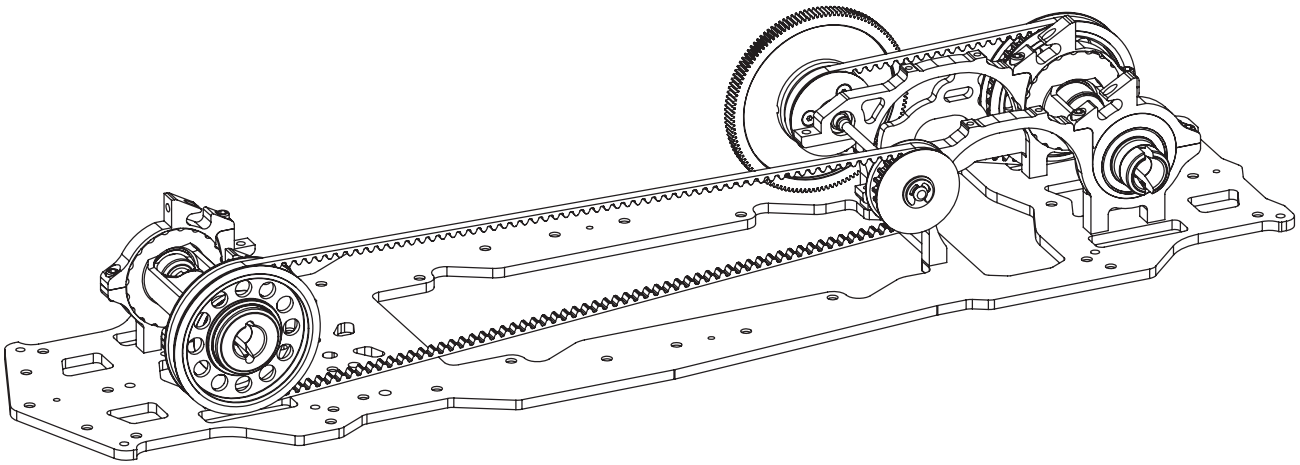
❑ STEP A-07 Belt Tension Setting



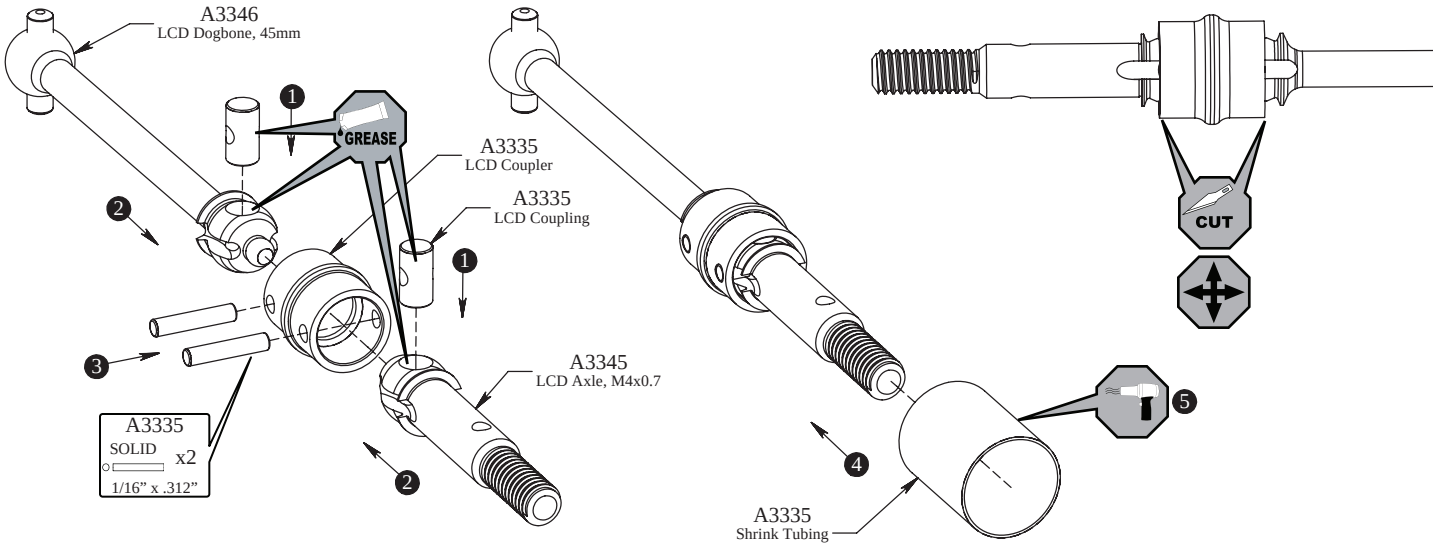


- Ensure the Front Differential is rotated into the High Position and the Rear Differential is rotated into the Low Position.
- To change Differential height positions be sure to rotate the Eccentrics in the direction that loosens the belt tension. **Failure to do this will damage the drive Belts.**
- Using Screw (4) to adjust the Bulkhead Clamp, set the Belt tension to have the vertical play as shown for front and rear.

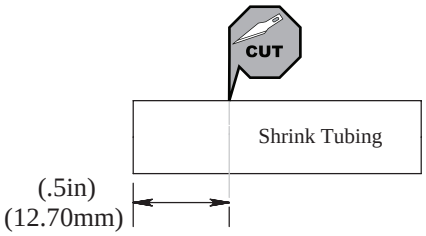
❑ STEP A-08 Completed Bag A Assembly



❑ STEP B-01 — LCD Driveshaft Assembly



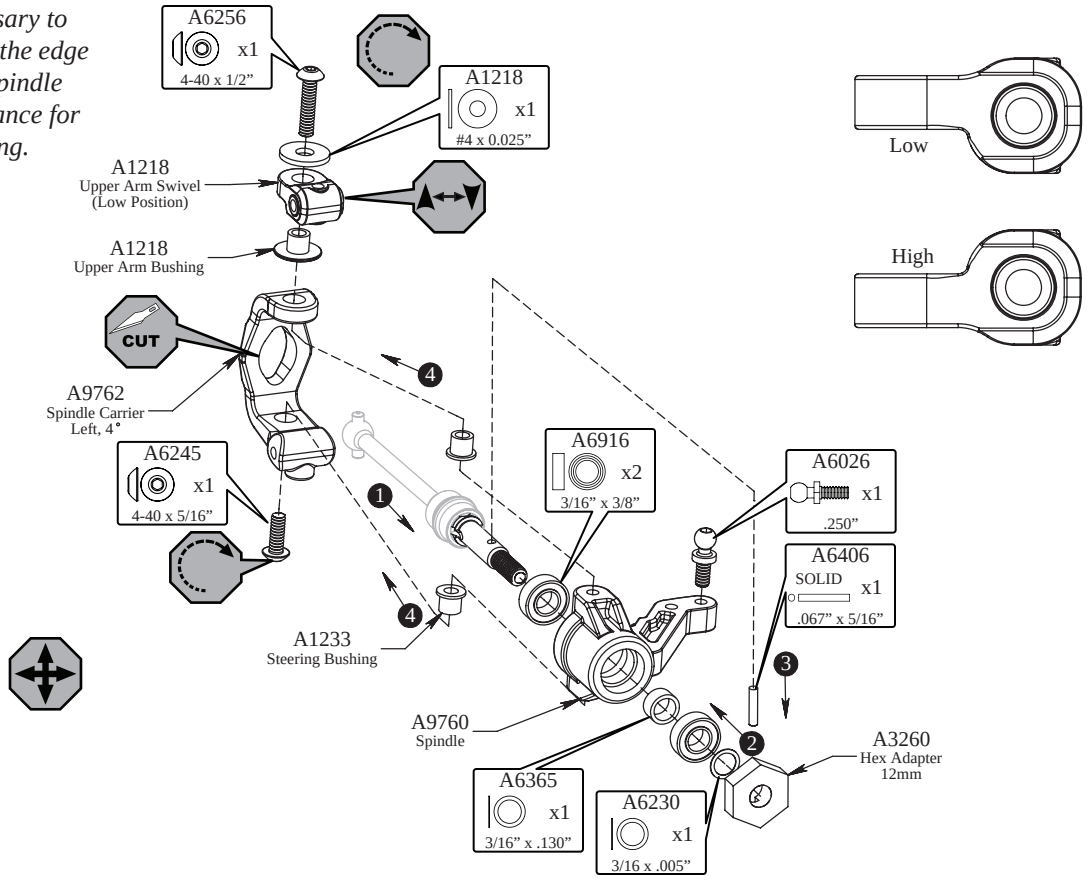
- Apply Synthetic White Grease to the Axle, Dogbone and Couplings.
- Assemble the Coupling, Axle, Dogbone, Coupler and Pins.
- Install cut length (may come pre-cut to length in some kits) of heat Shrink Tubing, centered over Coupler and apply heat to shrink.
- **Trim excess Shrink Tubing flush with Coupler.**
- Ensure Free Movement.



x2

❑ STEP B-02 — Spindle Carrier Assembly

- **NOTE: It may be necessary to trim some material from the edge of the large hole in the Spindle Carrier to provide clearance for the installed Shrink Tubing.*

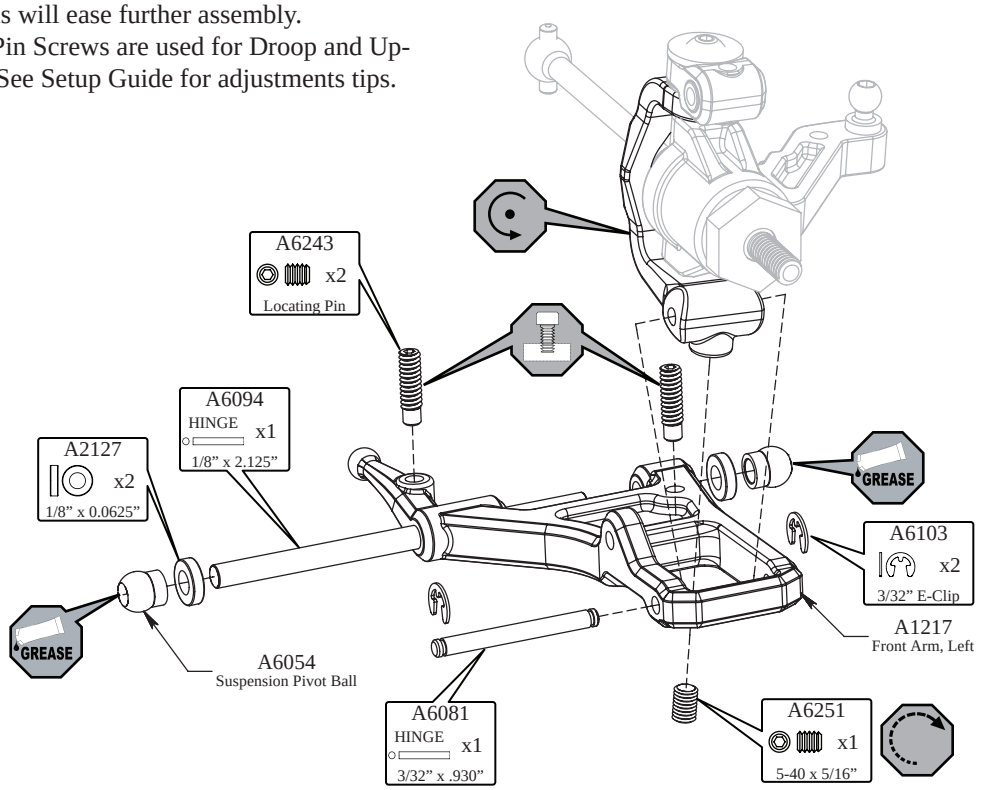


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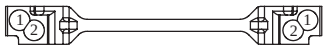
❑ STEP B-03 *Front Arm Assembly*

- Apply a small amount of White Grease to the inside of the Suspension Pivot Balls before installing onto the Hinge Pin. This will ease further assembly.
- The Locating Pin Screws are used for Droop and Up-travel setting. See Setup Guide for adjustments tips.



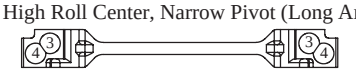
❑ STEP B-04 *Front Arm Installation*

(1) High Roll Center, Wide Pivot (Short Arm)



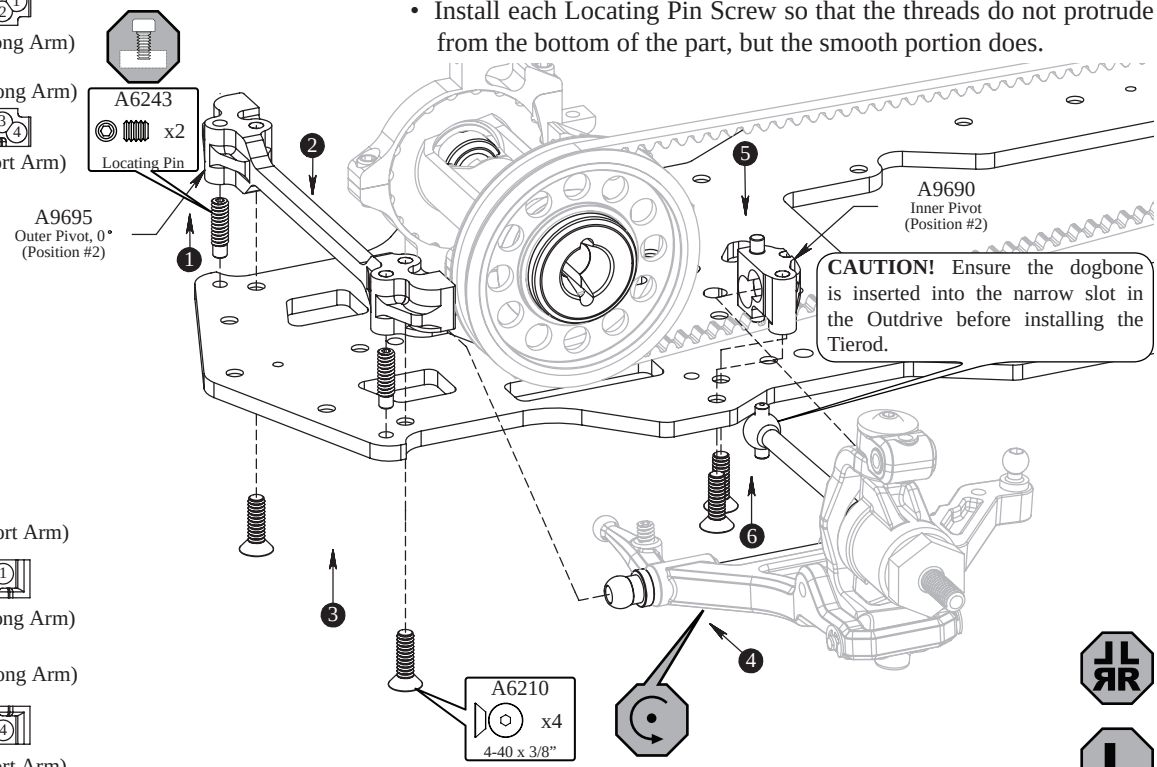
(2) Low Roll Center, Narrow Pivot (Long Arm)

(3) High Roll Center, Narrow Pivot (Long Arm)

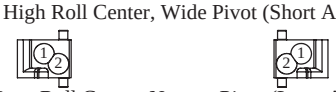


(4) Low Roll Center, Wide Pivot (Short Arm)

- Be sure to install the Locating Pin Screws (from the bottom) before attaching the Outer Pivot Blocks to the Chassis.
- Install each Locating Pin Screw so that the threads do not protrude from the bottom of the part, but the smooth portion does.

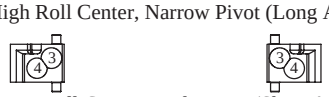


(1) High Roll Center, Wide Pivot (Short Arm)



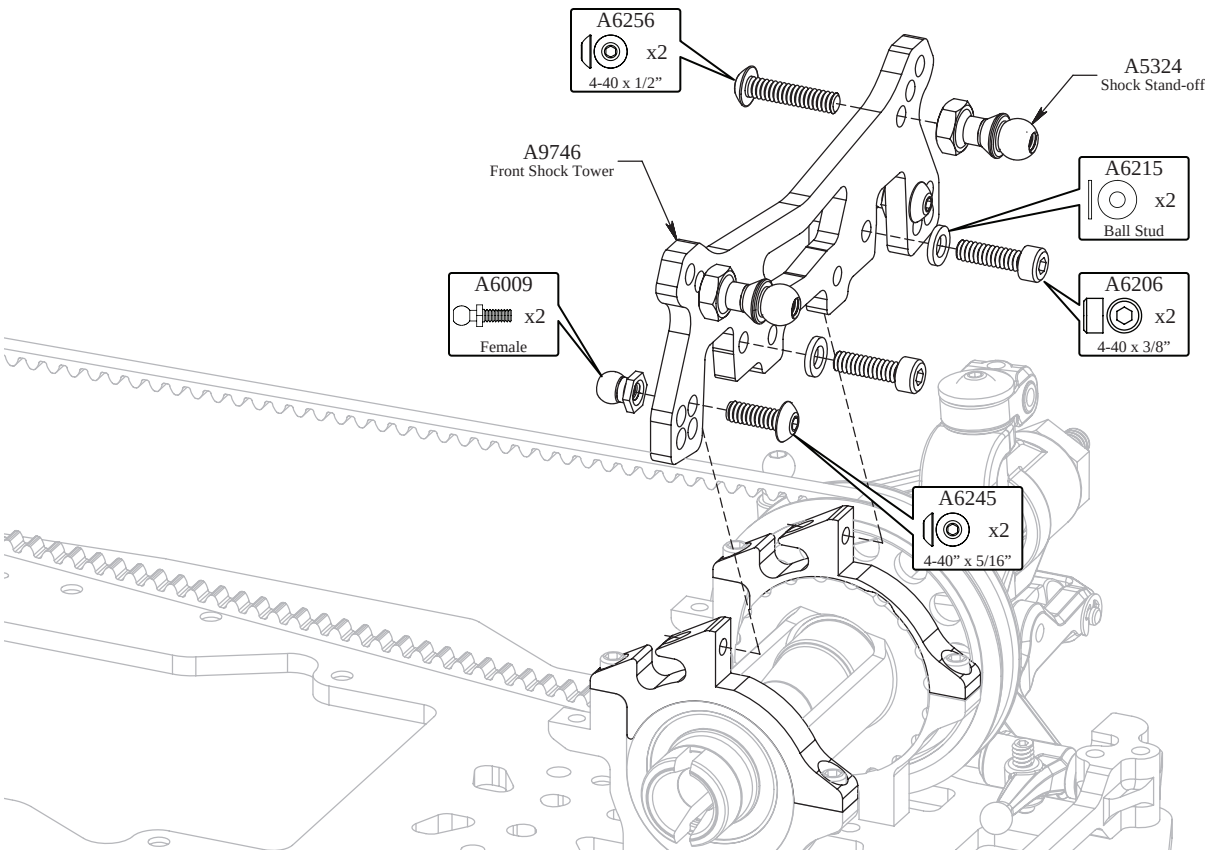
(2) Low Roll Center, Narrow Pivot (Long Arm)

(3) High Roll Center, Narrow Pivot (Long Arm)

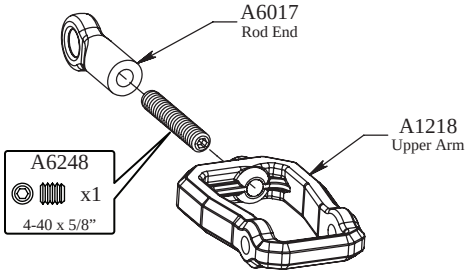


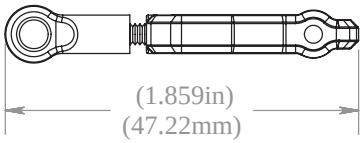
(4) Low Roll Center, Wide Pivot (Short Arm)

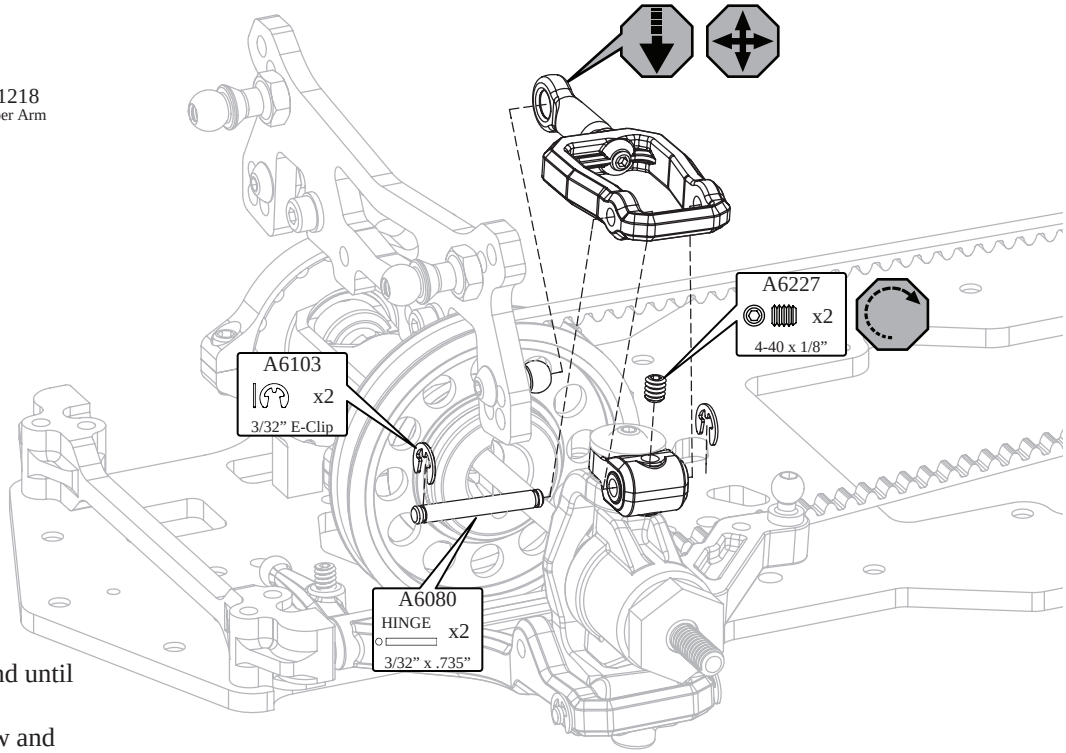
❑ STEP B-05 *Front Shock Tower Installation*



❑ STEP B-06 *Upper Arm Installation*

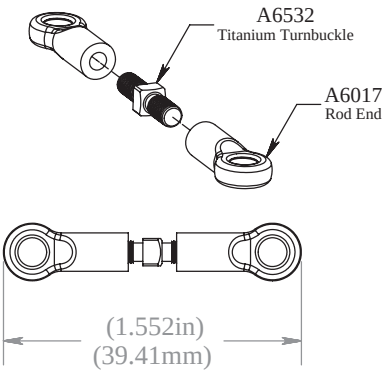


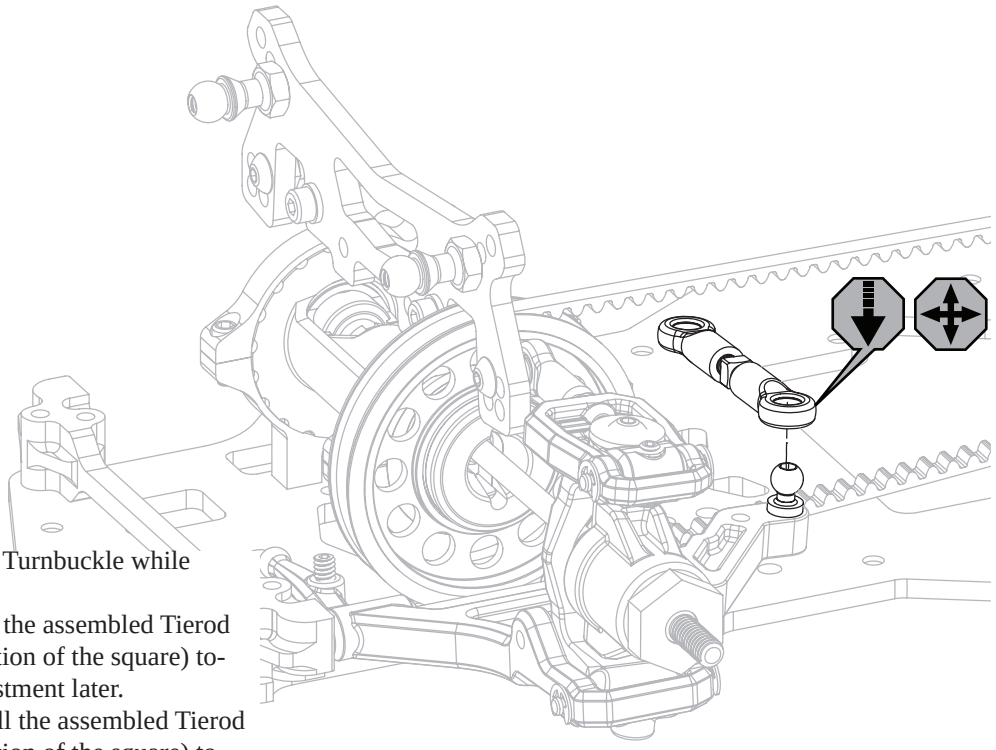




- Install the Set Screw into the Rod End until the Screw bottoms out.
- Install the Upper Arm onto the Screw and adjust to proper length and orientation.

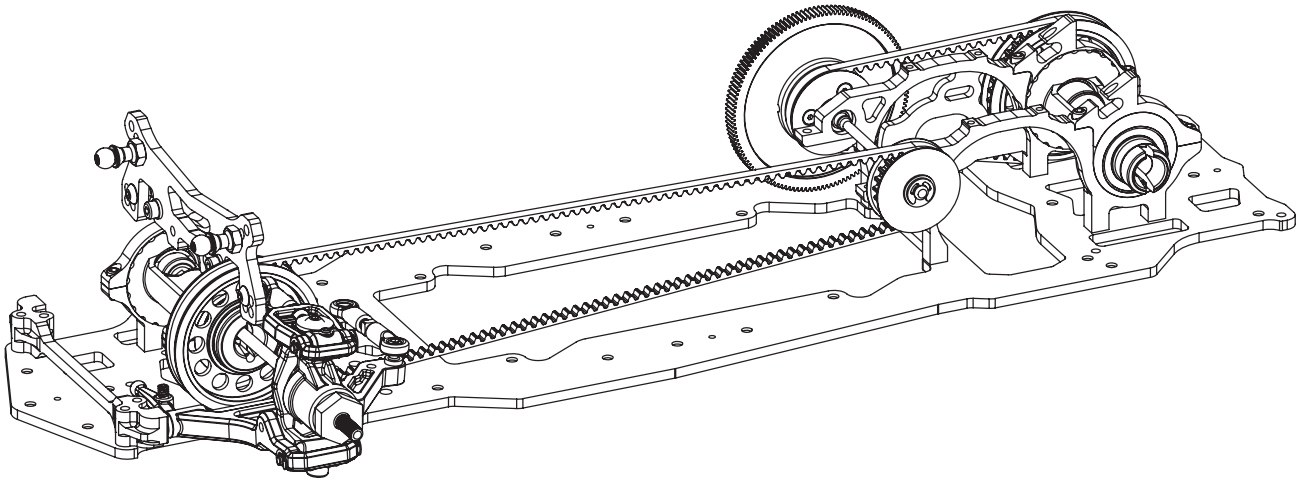
❑ STEP B-07 *Steering Tierod Installation*



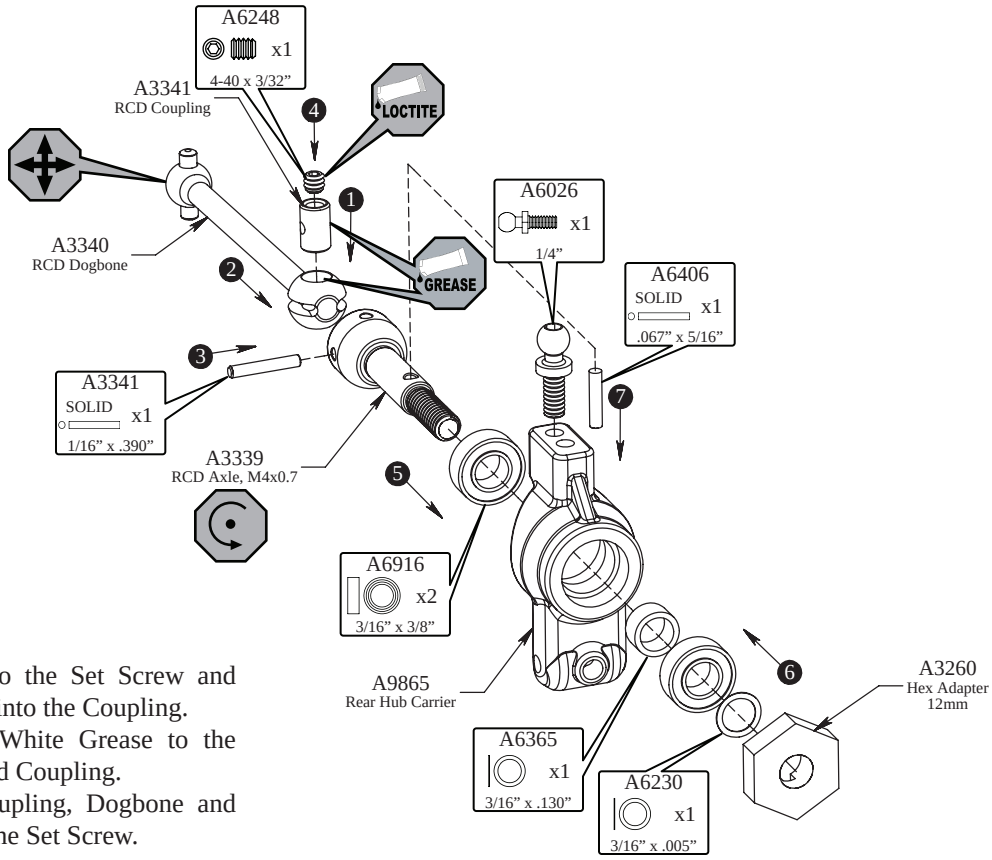


- Use the Team Losi Flat Wrench to hold the Turnbuckle while installing the short Rod Ends.
- On the left side of the car, be sure to install the assembled Tierod onto the car with the chamfer (beveled portion of the square) towards the outside of the car for easier adjustment later.
- On the right side of the car, be sure to install the assembled Tierod onto the car with the chamfer (beveled portion of the square) towards the inside of the car for easier adjustment later.

❑ STEP B-08 *Completed Bag B Assembly*



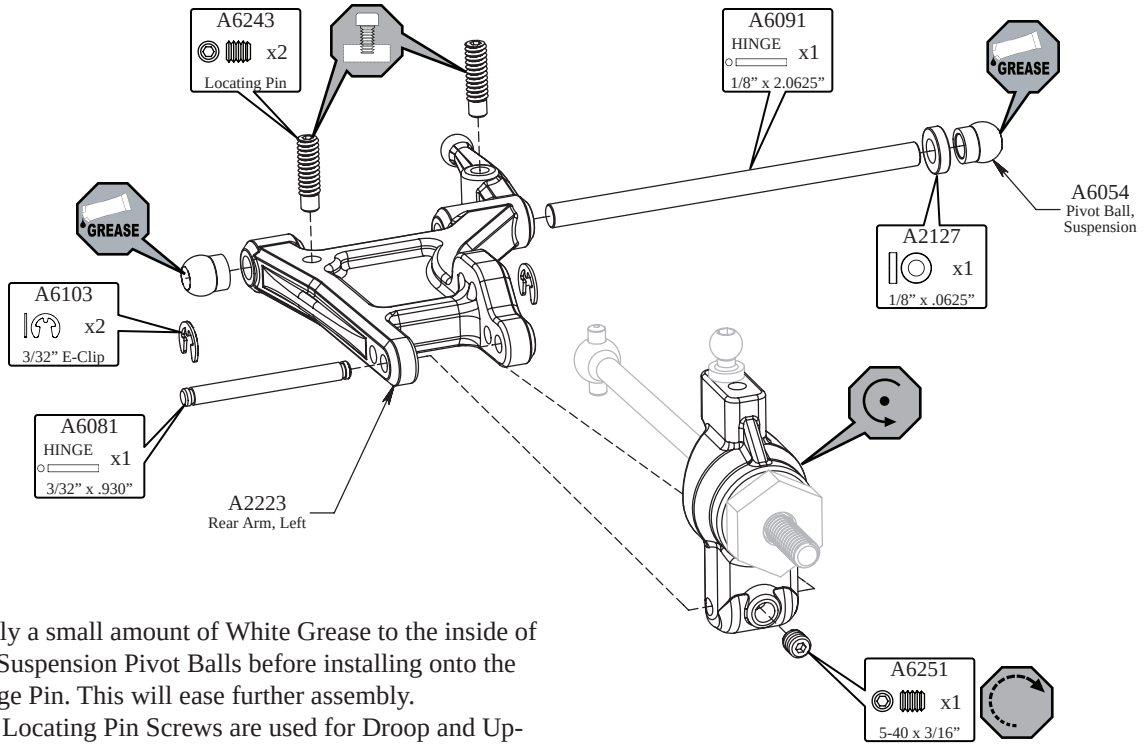
❑ STEP C-01 RCD Driveshaft Assembly



- Apply Loctite® to the Set Screw and partially thread it into the Coupling.
- Apply Synthetic White Grease to the RCD Dogbone and Coupling.
- Assemble the Coupling, Dogbone and Pin, then tighten the Set Screw.
- Ensure Free Movement.

x2

❑ STEP C-02 Rear Arm Assembly



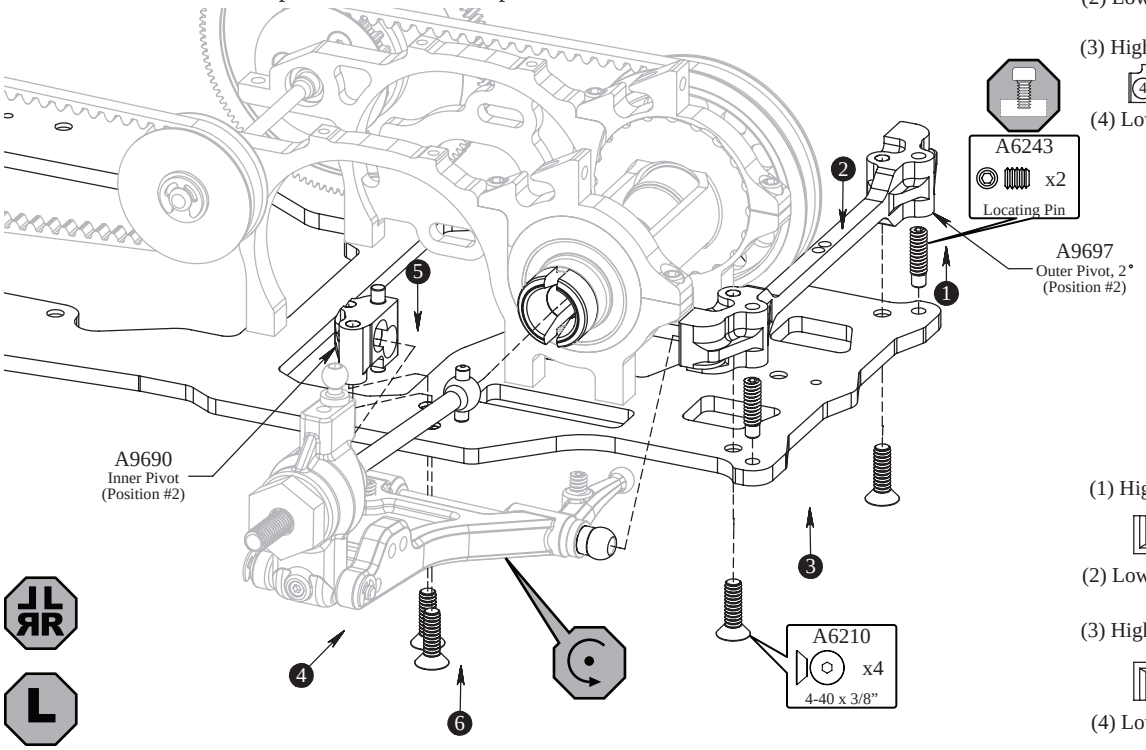
- Apply a small amount of White Grease to the inside of the Suspension Pivot Balls before installing onto the Hinge Pin. This will ease further assembly.
- The Locating Pin Screws are used for Droop and Up-travel setting. See Setup Guide for adjustments tips.

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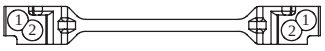
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❑ STEP C-03 Rear Arm Installation

- Be sure to install the Locating Pin Screws (from the bottom) before attaching the Outer Pivot Blocks to the Chassis.
- Install each Locating Pin Screw so that the threads do not protrude from the bottom of the part, but the smooth portion does.

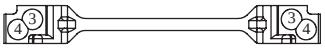


(1) High Roll Center, Wide Pivot (Short Arm)



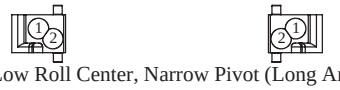
(2) Low Roll Center, Narrow Pivot (Long Arm)

(3) High Roll Center, Narrow Pivot (Long Arm)



(4) Low Roll Center, Wide Pivot (Short Arm)

(1) High Roll Center, Wide Pivot (Short Arm)



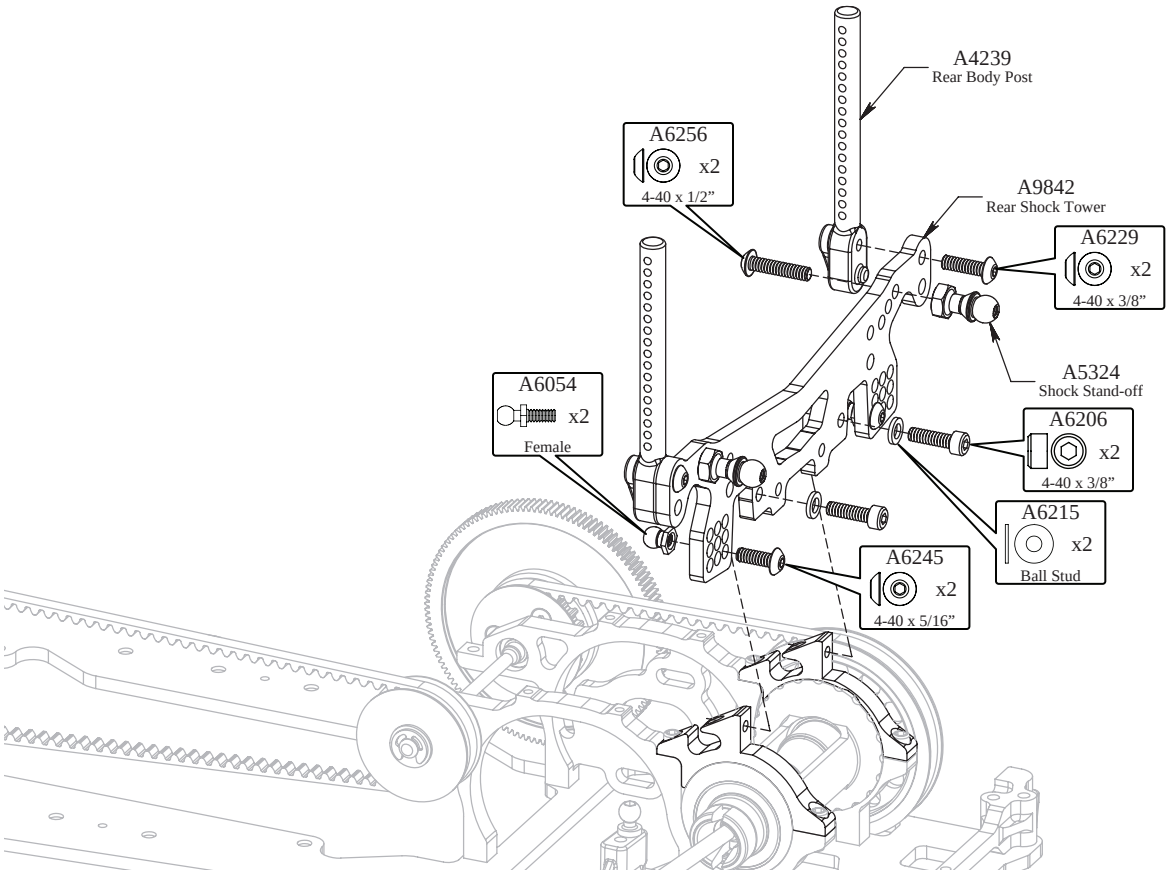
(2) Low Roll Center, Narrow Pivot (Long Arm)

(3) High Roll Center, Narrow Pivot (Long Arm)



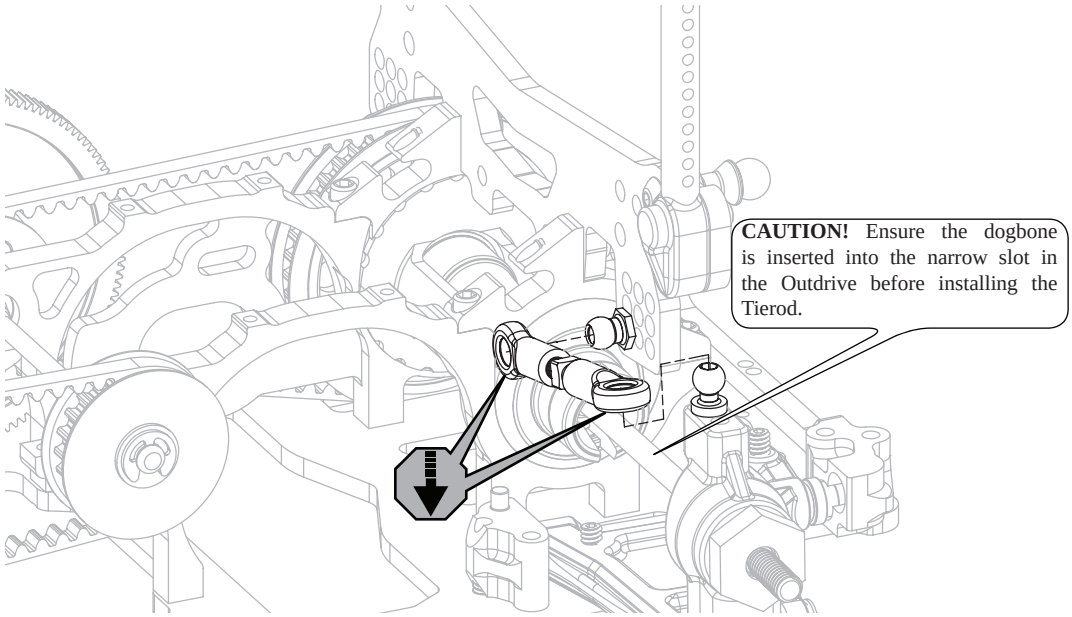
(4) Low Roll Center, Wide Pivot (Short Arm)

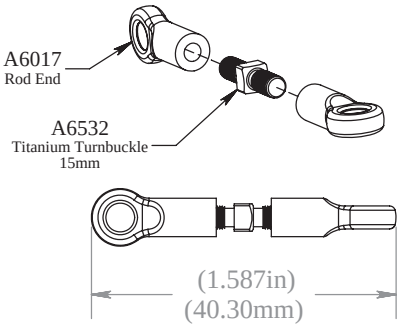
❑ STEP C-04 Rear Shock Tower Installation



❑ STEP C-05 *Rear Camber Tierod Installation*

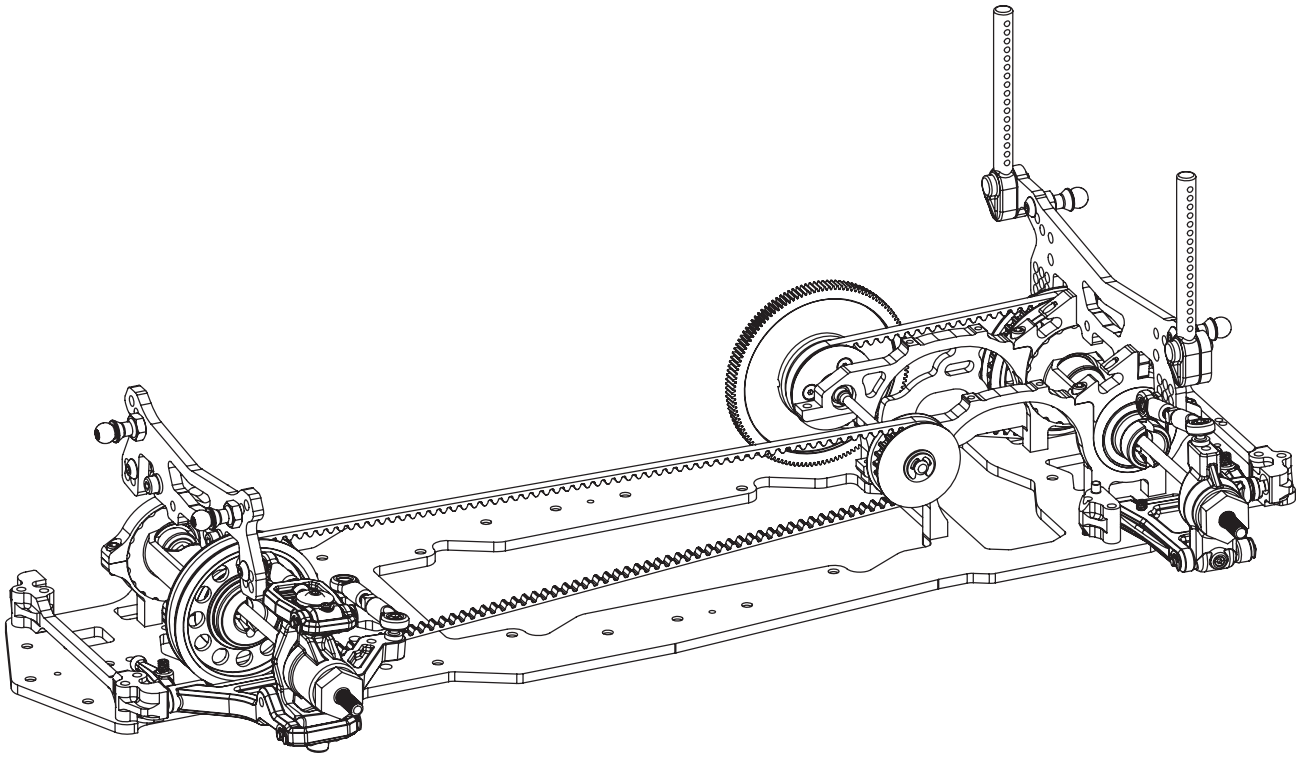
- Use the Team Losi Flat Wrench to hold the Turnbuckle while installing the short Rod Ends.
- On the left side of the car, be sure to install the assembled Tierod onto the car with the chamfer (beveled portion of the square) towards the outside of the car for easier adjustment later.
- On the right side of the car, be sure to install the assembled Tierod onto the car with the chamfer (beveled portion of the square) towards the inside of the car for easier adjustment later.





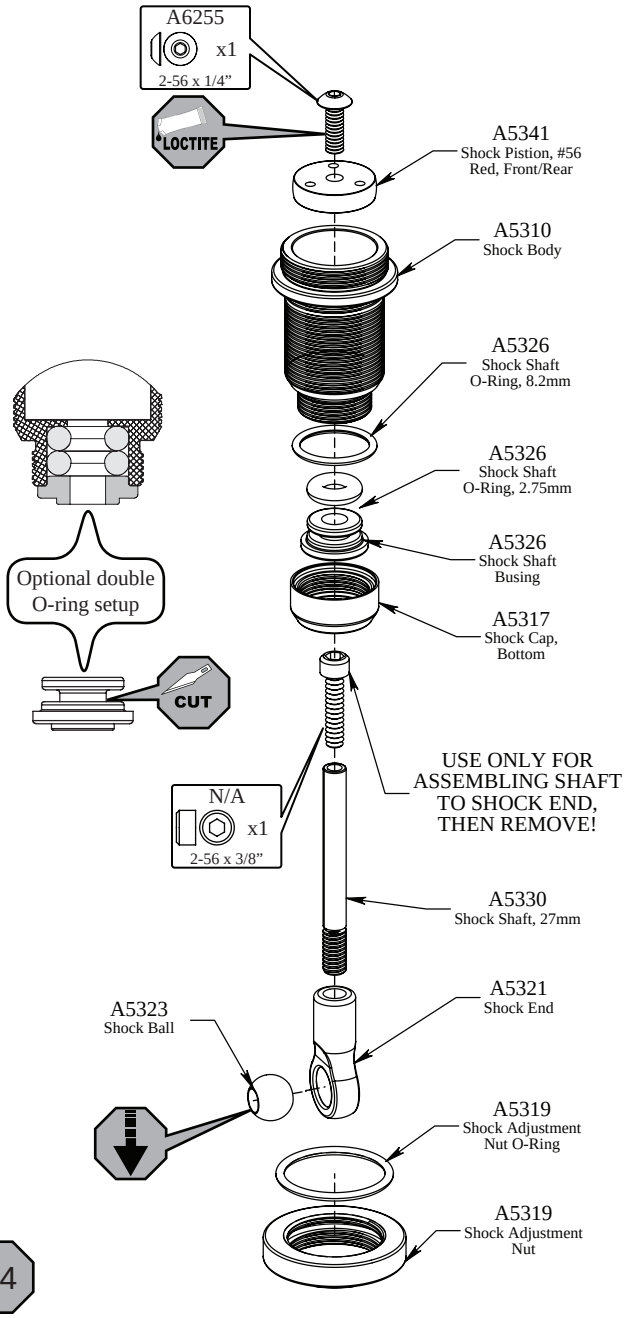


❑ STEP C-06 *Completed Bag C Assembly*



❑ STEP D-01 *Shock Body Assembly*

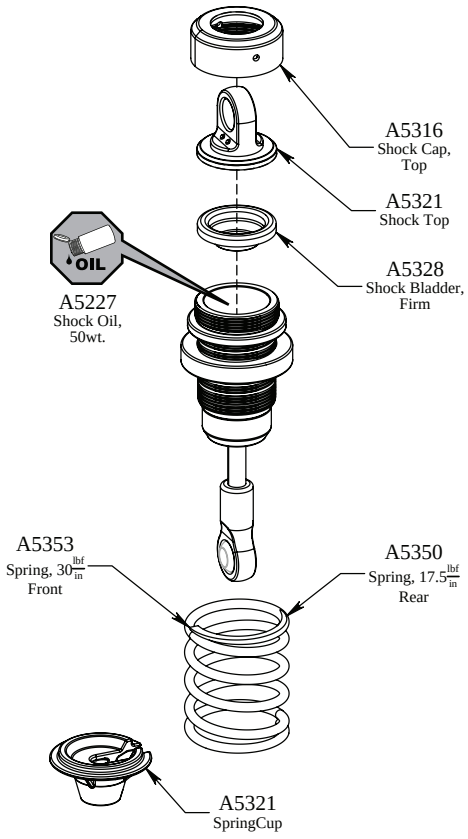
- Thread the 2-56 x 5/16" Cap Head Screw into Shock Shaft using a 5/64" (or 2mm) Allen wrench.
- Thread the Shaft into the Shock End (using the 2-56 Cap Head Screw) until the edge on the Shaft (between the smooth and threaded sections) meets with the edge of the Shock end. Now, holding the Shaft and Screw, turn the Shock End an additional 2.5 rotations. Usually it is best to use half-rotation increments (**DO NOT THREAD IT ON MORE THAN THIS**). Remove the Cap Head Screw.
- Place a drop of Shock Oil onto the end of the Shaft with the hole in it and slide it through the assembled Shock Body as shown.
- Install the Piston using the 2-56 x 1/4" Button Head Screw, Applying Loctite® to the Screw **after** threading it through the Piston.
- Install the Shock Adjustment Nut O-ring into the Shock Adjustment Nut before installing the Nut onto the Shock Body.



x4

❑ STEP D-02 *Final Shock Assembly*

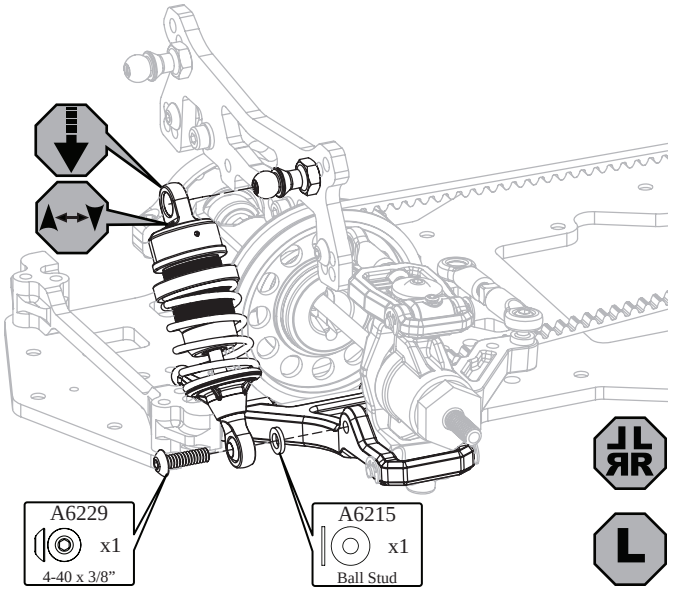
- Ensure the Shaft is fully extended when filling the Shock.
- Fill the Shock Body with 50wt. Shock Oil until the Oil is approximately 1/16" from the top of the Body.
- "Work" the Shock Shaft up and down a few times. This will release the air bubbles trapped beneath the Piston. Place the filled Shock, in the upright position, off to the side for a few minutes until the air bubbles escape from the Oil.
- Once all the air bubbles are out of the Oil, gently place the Shock Bladder onto the Shock as shown. Some Oil should "bleed" from the Shock.
- Place the plastic Shock Top into the Shock Cap (top) (NOTE: There are two Shock Tops, use two dots to designate left side shocks and one dot to designate right side shocks.
- Screw the Shock Cap onto the Body until some resistance is felt.
- Slowly push the Shock Shaft up. This will bleed excess Oil from the Shock.
- Tighten the cap all the way down **by hand.**
- Move the Shock Shaft up and down. The Shaft should be easy to push up into the Body of the Shock. If increased pressure is felt towards the top, there is to much oil in the Shock. Loosen the Shock Cap and "bleed" the Shock as done previously.
- Make sure each pair (front/rear) Shocks have the same rebound and compression. This is checked by holding one Shock in each hand horizontally and pushing them together by the Shock End. Watch carefully to ensure that both compress evenly. Now release both Shocks and again watch carefully as they should rebound the same.
- If there are differences, adjust the Shocks with the amount of Oil, either adding or bleeding (**THERE SHOULD BE NO AIR IN THE SHOCK WHEN COMPLETE**).



x4

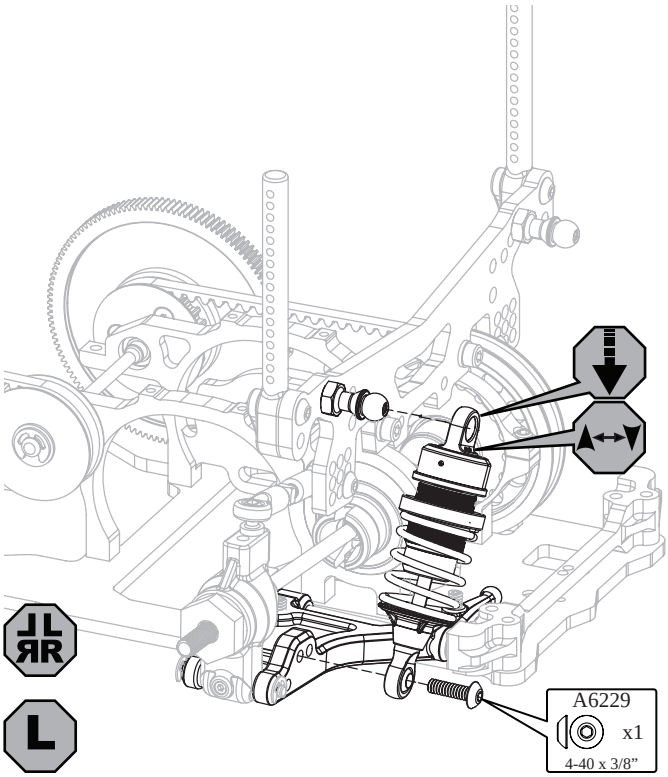
❑ STEP D-03 *Front Shock Installation*

- Recall: Place Shocks containing two dots, on the Shock Top, on the left side of the car, and the Shocks containing one dot, on the Shock Top, on the right side of the car.

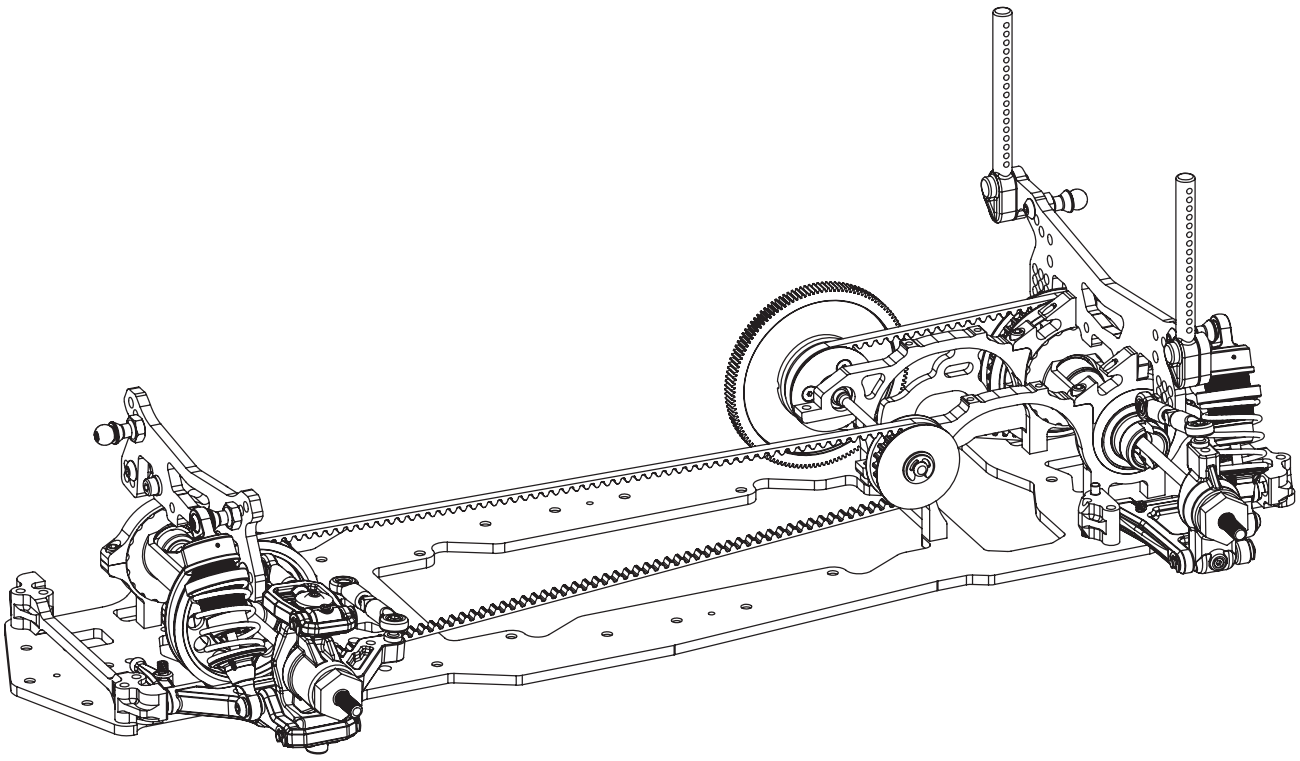


❑ STEP D-04 *Rear Shock Installation*

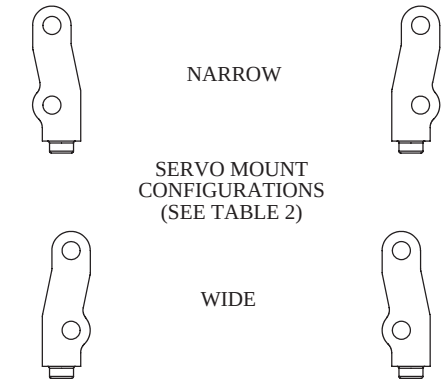
- Recall: Place Shocks containing two dots, on the Shock Top, on the left side of the car, and the Shocks containing one dot, on the Shock Top, on the right side of the car.

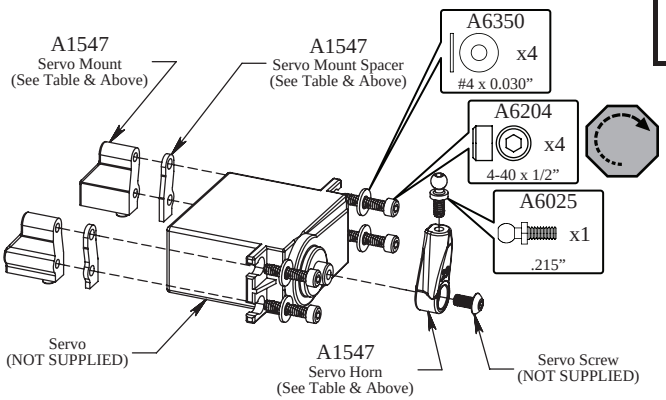


❑ STEP D-05 *Completed Bag D Assembly*



❑ STEP E-01 *Servo Assembly*





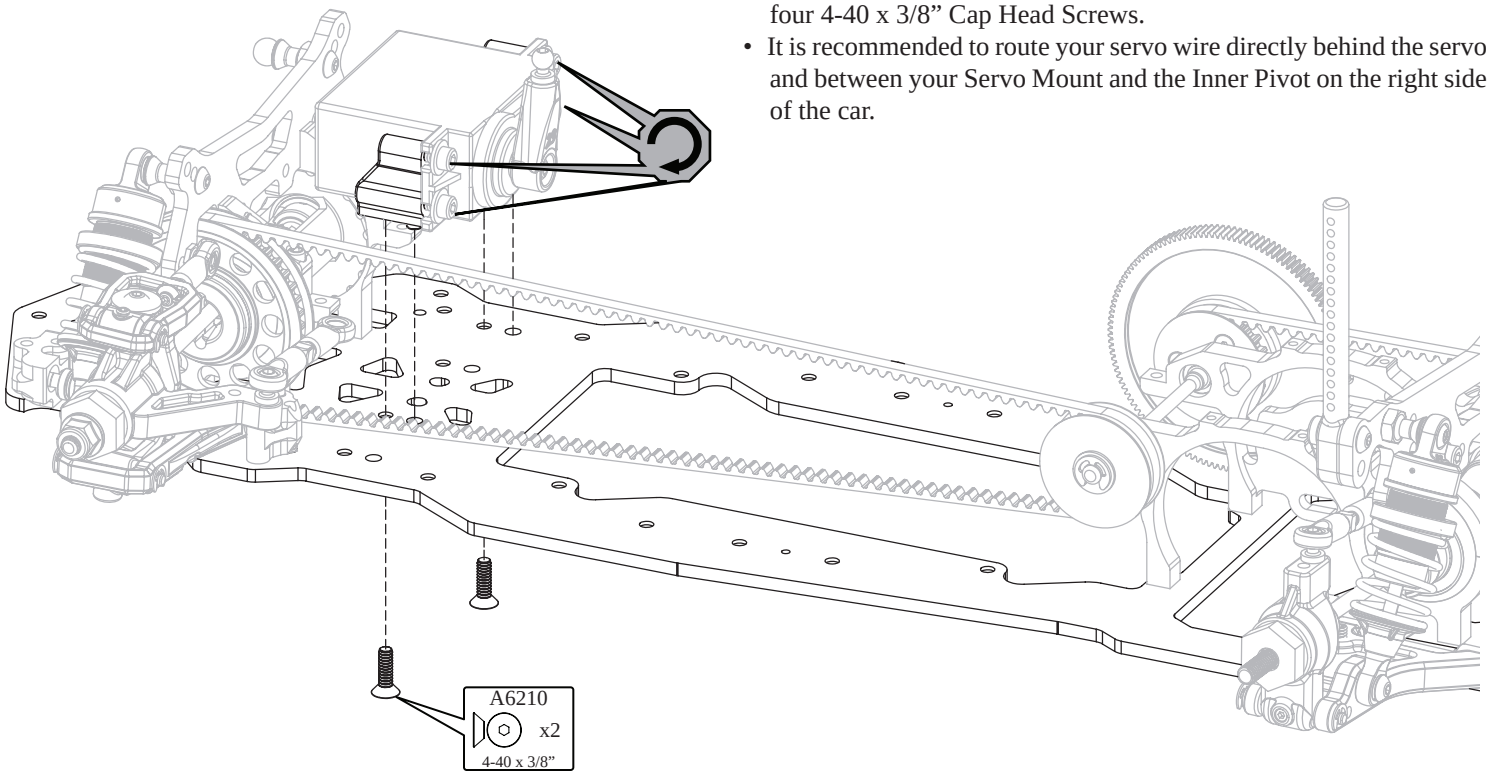
Servo Manufacturer, Make/Model	Servo Horn	Mount Position	Spacer Use
JR ALL	23T	Wide	None
KO ALL	25T	Wide	1
Hitec ALL	24T	Wide	None
Futaba ALL	25T	Wide	1
Airtronics ALL	23T	Wide	1-2

Table 2: Servo Installation Table for the JRX-S Type R Expert Racing Sedan.

- Use the Servo Mount Spacers to position the servo as close to the Front Bulkheads as possible, but not touching.
- Ensure the servo gear is **centered** before attaching the Servo Horn. This is best accomplished by connecting the servo to the radio system and setting the trim to center.
- DO NOT tighten the four 4-40 x 1/2" Cap Head Screws all the way, they must be tightened after assembly to the Chassis is complete to ensure proper alignment.

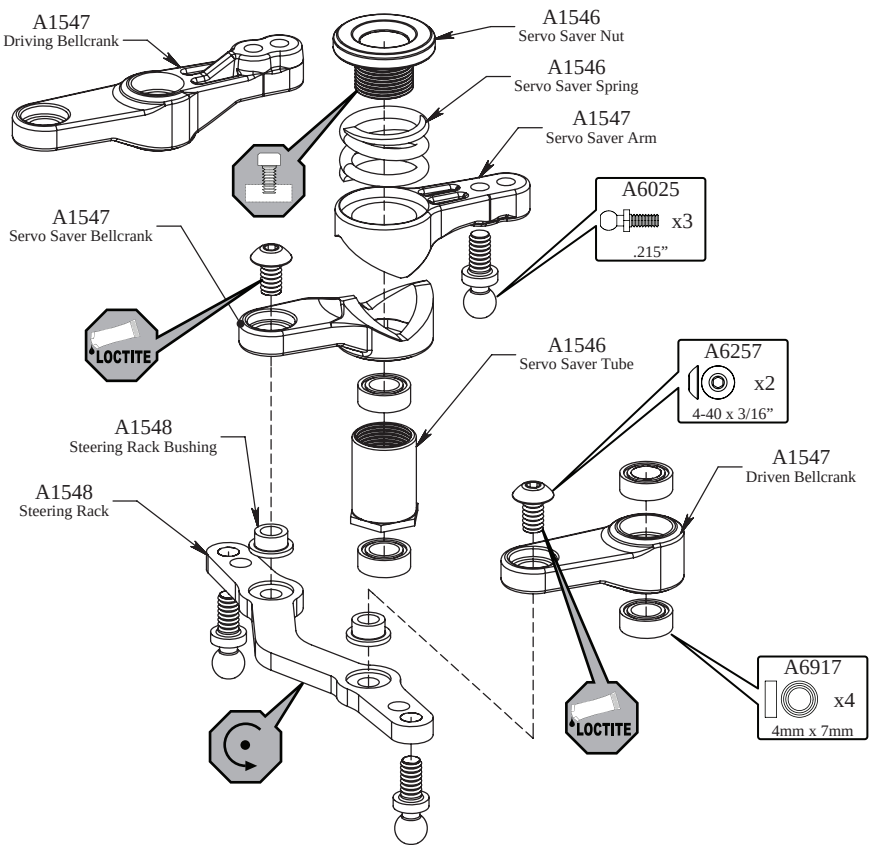
❑ STEP E-02 *Servo Installation*

- Once the Servo Mounts are secured to the Chassis, ensure the Servo Horn is as close as can be to the center of the Chassis and tighten the four 4-40 x 3/8" Cap Head Screws.
- It is recommended to route your servo wire directly behind the servo and between your Servo Mount and the Inner Pivot on the right side of the car.



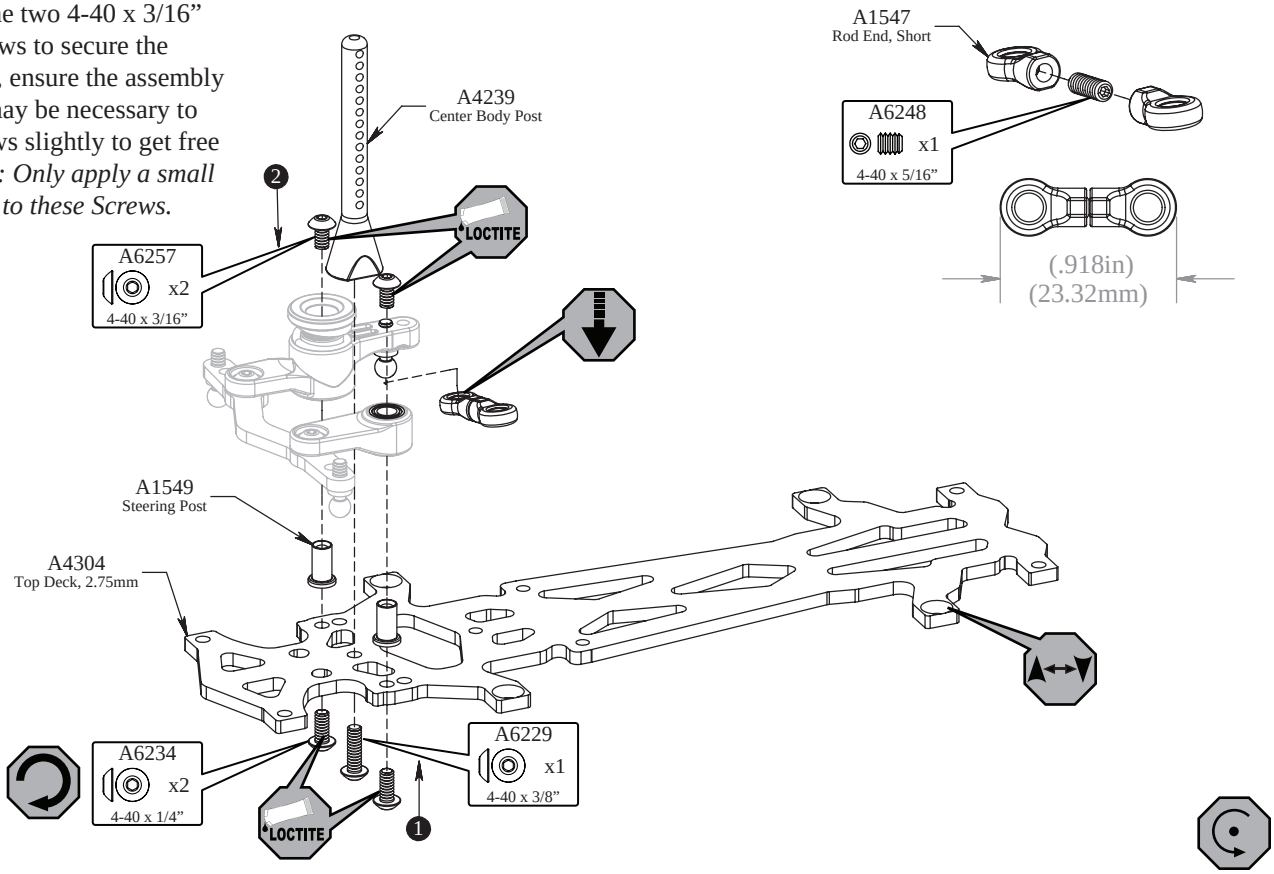
❑ STEP E-03 *Steering Assembly*

- **Warning! Using the optional Driving Bellcrank instead of the Servo Saver will make your Servo more susceptible to damage from impact.**

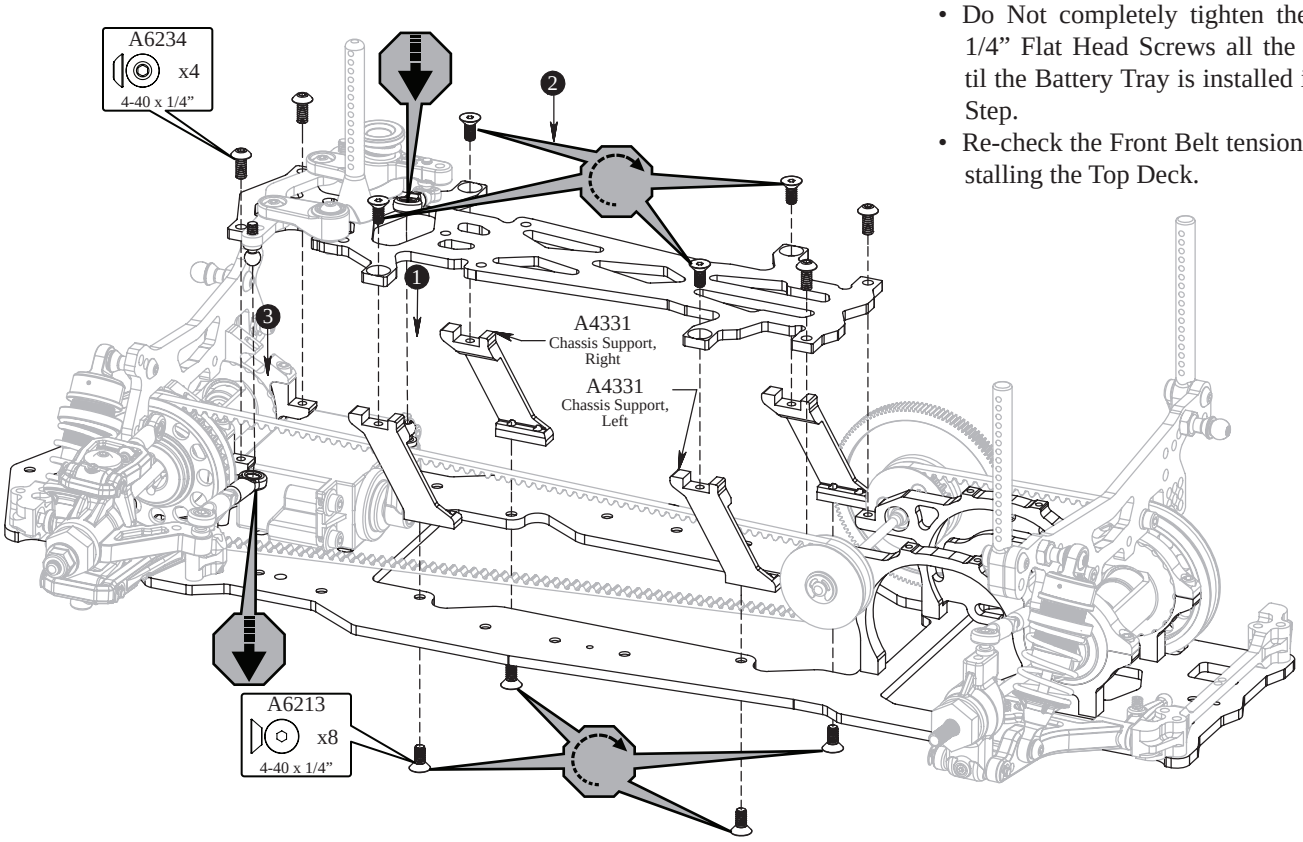


❑ STEP E-04 *Top Deck Assembly*

- When installing the two 4-40 x 3/16" Button Head Screws to secure the steering assembly, ensure the assembly rotates freely. It may be necessary to back off the Screws slightly to get free movement. **Note: Only apply a small amount of Loctite to these Screws.*

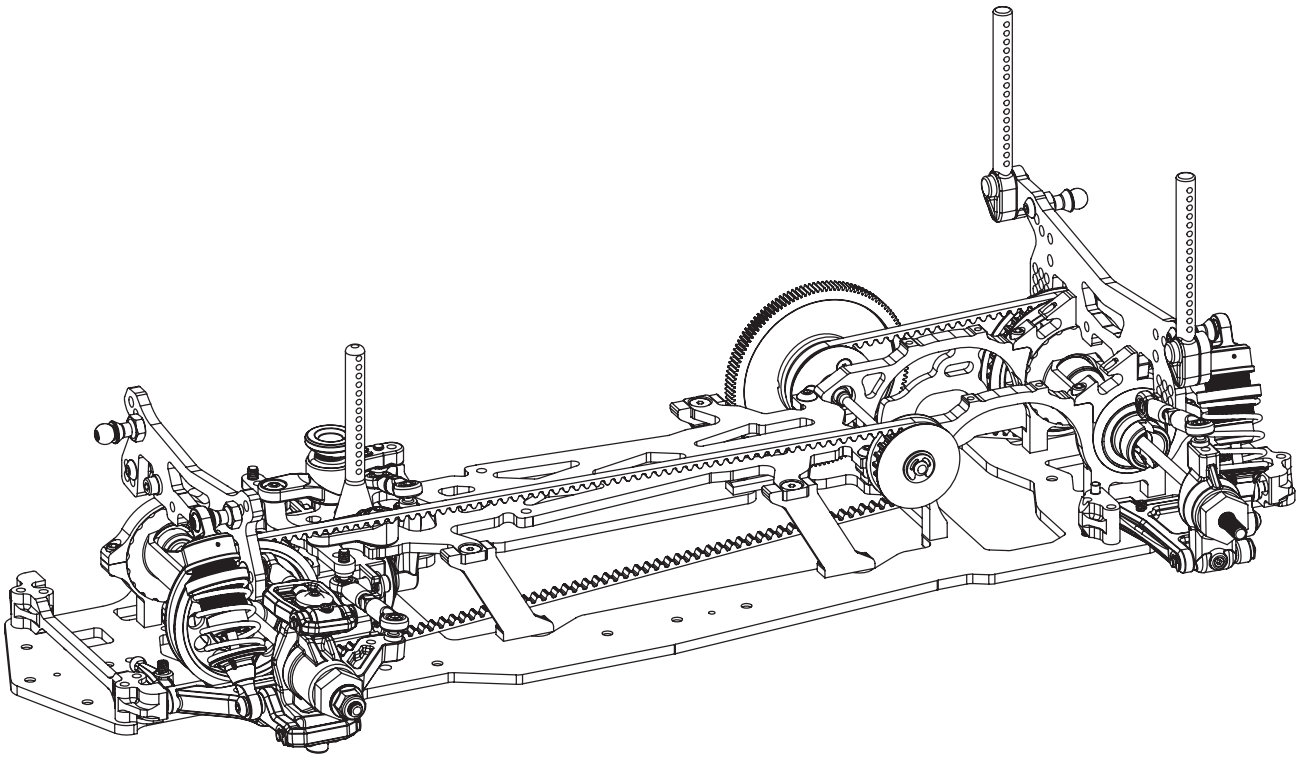


❑ STEP E-05 *Top Deck Installation*

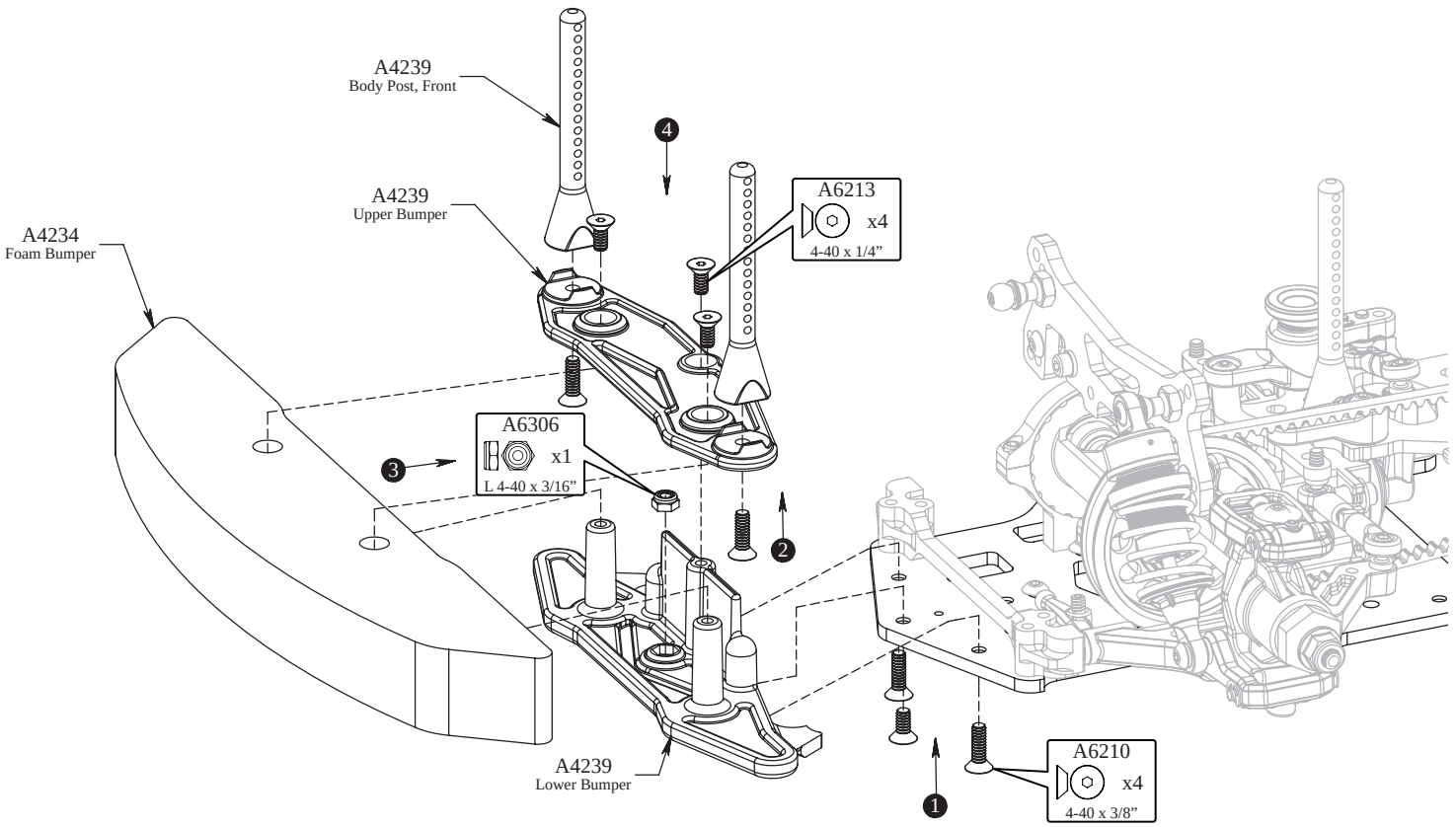


- Do Not completely tighten the 4-40 x 1/4” Flat Head Screws all the way until the Battery Tray is installed in a later Step.
- Re-check the Front Belt tension after installing the Top Deck.

❑ STEP E-06 *Completed Bag E Assembly*

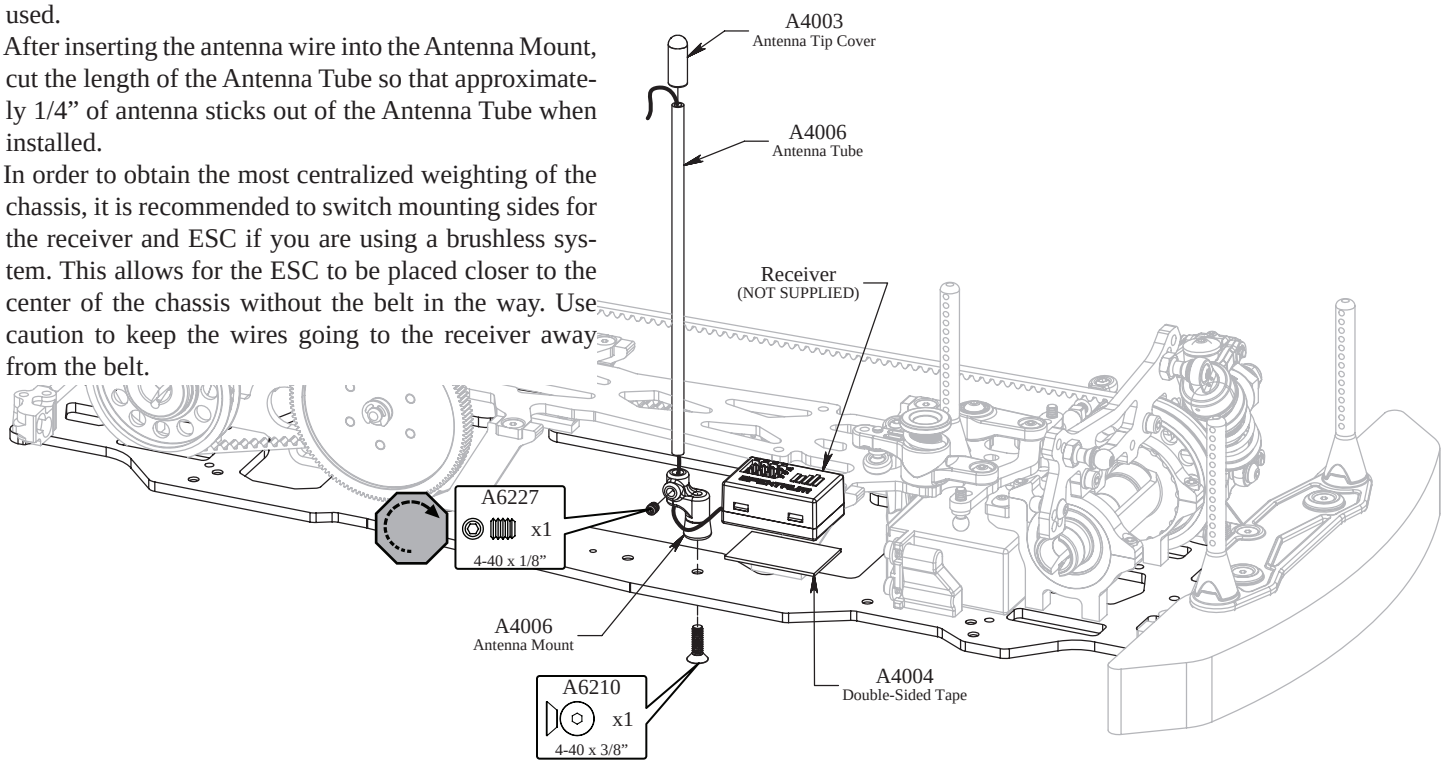


❑ STEP F-01 *Bumper Assembly & Installation*



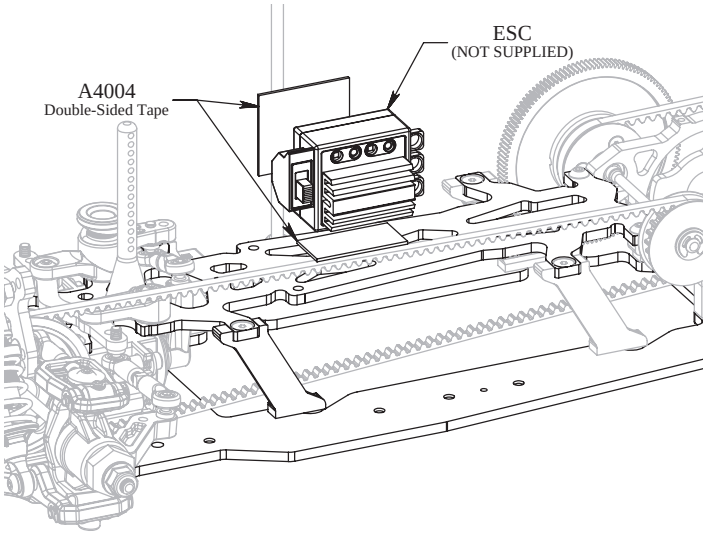
❑ STEP F-02 *Receiver Installation*

- There are three Antenna Mount mounting positions to allow for different sized receivers and length antennas. Use the hole appropriate to the size receiver being used.
- After inserting the antenna wire into the Antenna Mount, cut the length of the Antenna Tube so that approximately 1/4” of antenna sticks out of the Antenna Tube when installed.
- In order to obtain the most centralized weighting of the chassis, it is recommended to switch mounting sides for the receiver and ESC if you are using a brushless system. This allows for the ESC to be placed closer to the center of the chassis without the belt in the way. Use caution to keep the wires going to the receiver away from the belt.



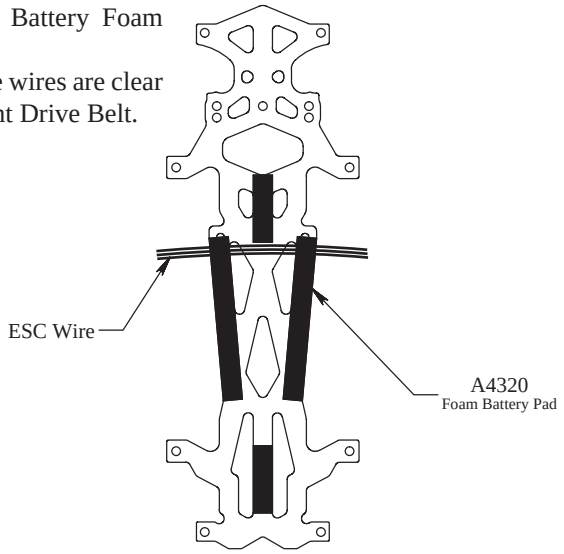
❑ STEP F-03 *ESC Installation*

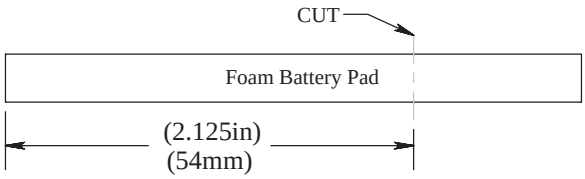
- For improved cooling, install the ESC as shown, applying Double-Sided Tape appropriately to secure the ESC to both the Chassis and Chassis Support.
- In order to obtain the most centralized weighting of the chassis, it is recommended to switch mounting sides for the receiver and ESC if you are using a brushless system. This allows for the ESC to be placed closer to the center of the chassis without the belt in the way.



❑ STEP F-04 *Battery Foam Installation*

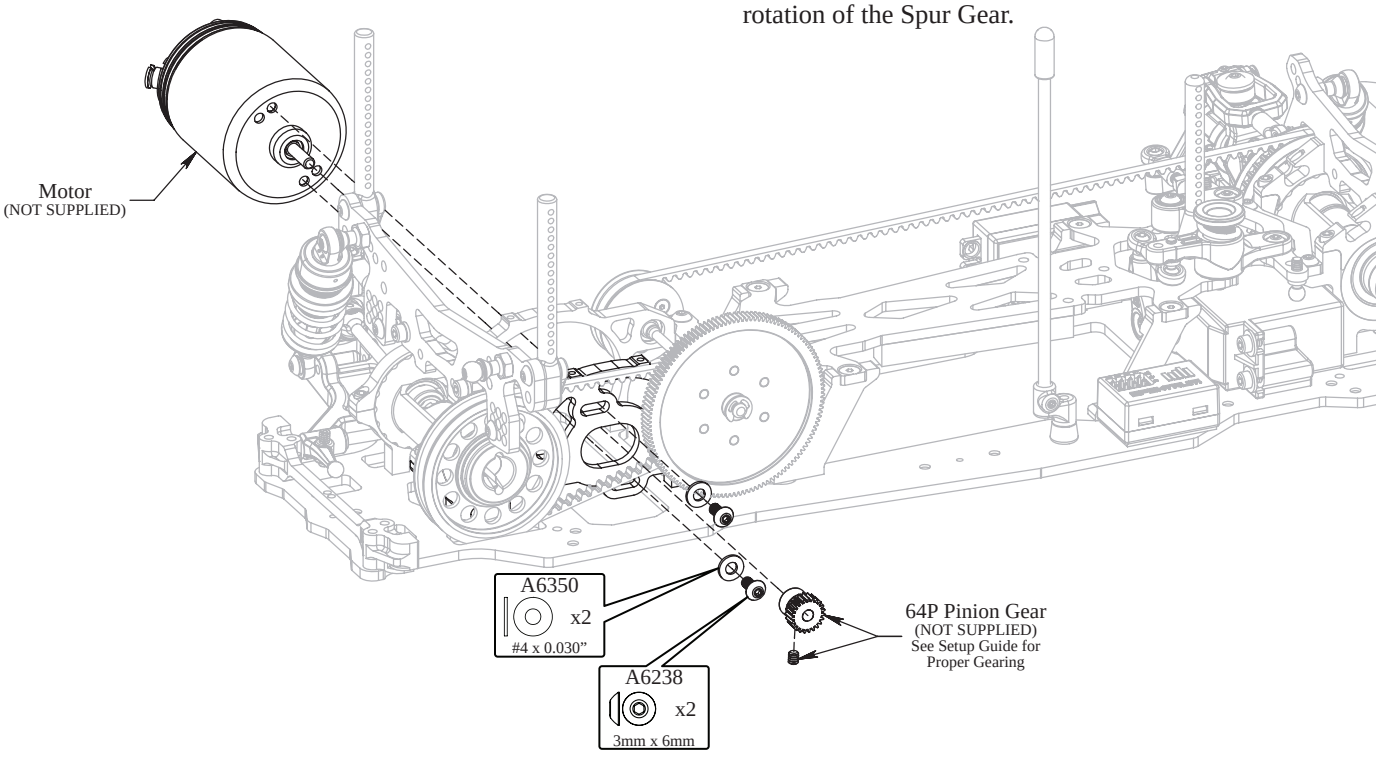
- Secure the ESC wires to the Top Deck by sticking them to the bottom side with four Battery Foam pads.
- Ensure the wires are clear of the front Drive Belt.



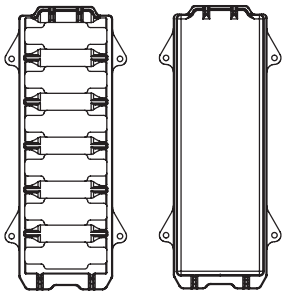


❑ STEP F-05 *Motor Installation*

- When setting the gear mesh, leave a small amount of backlash for proper function. Too much backlash will cause failure, so be sure to check the mesh at different points in the rotation of the Spur Gear.

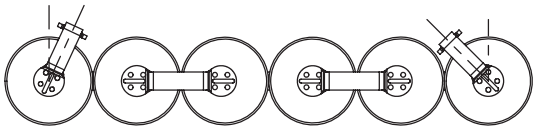


❑ STEP F-06 Battery Installation

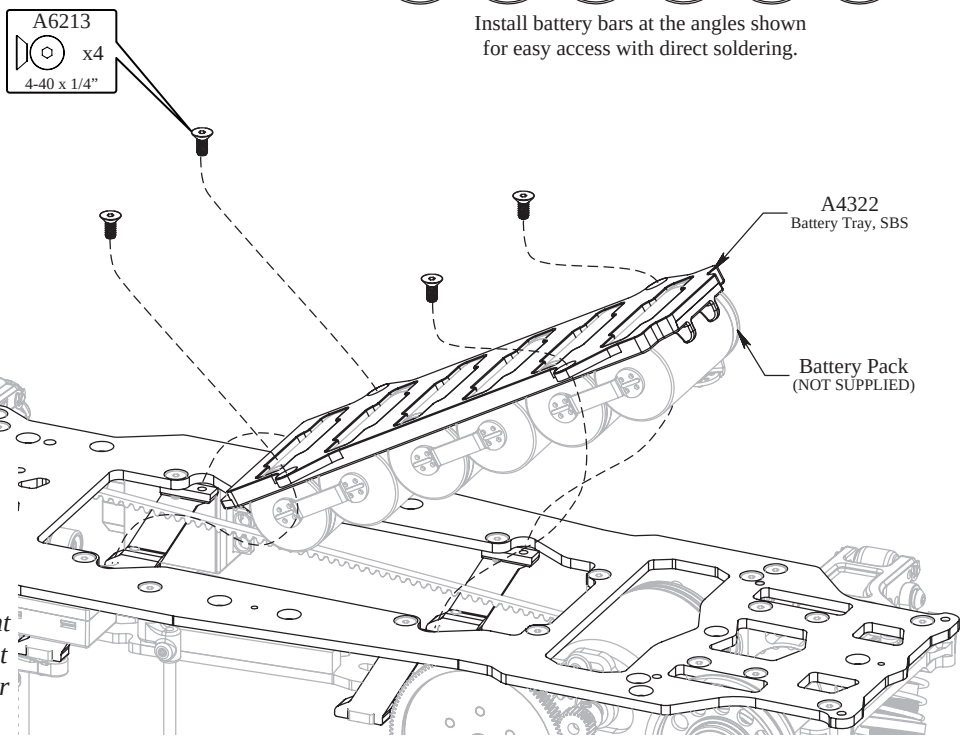


Use for Side-by-Side Battery Packs

Use for Li-Po and Stick Battery Packs



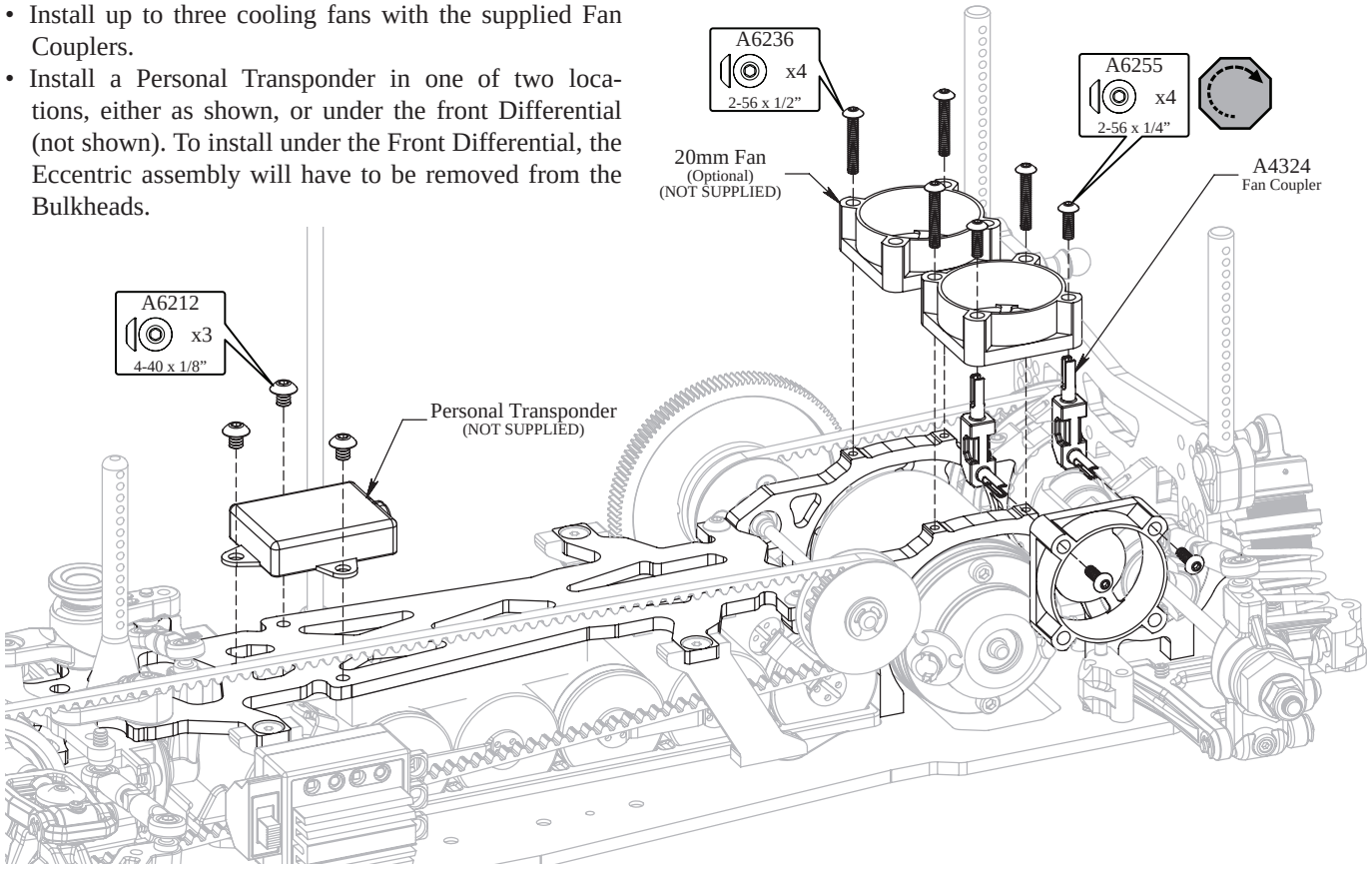
Install battery bars at the angles shown for easy access with direct soldering.



- After installing the appropriate Battery Tray, re-tighten the eight 4-40 x 1/4” Flat Head Screws that secure the Chassis Supports. **Note: It is recommended to do this in an “X” manner to prevent chassis tweak. For example: tighten the front right Screw, followed by the back left, then front left, followed by the back right. Do this for the top and bottom Screws.*

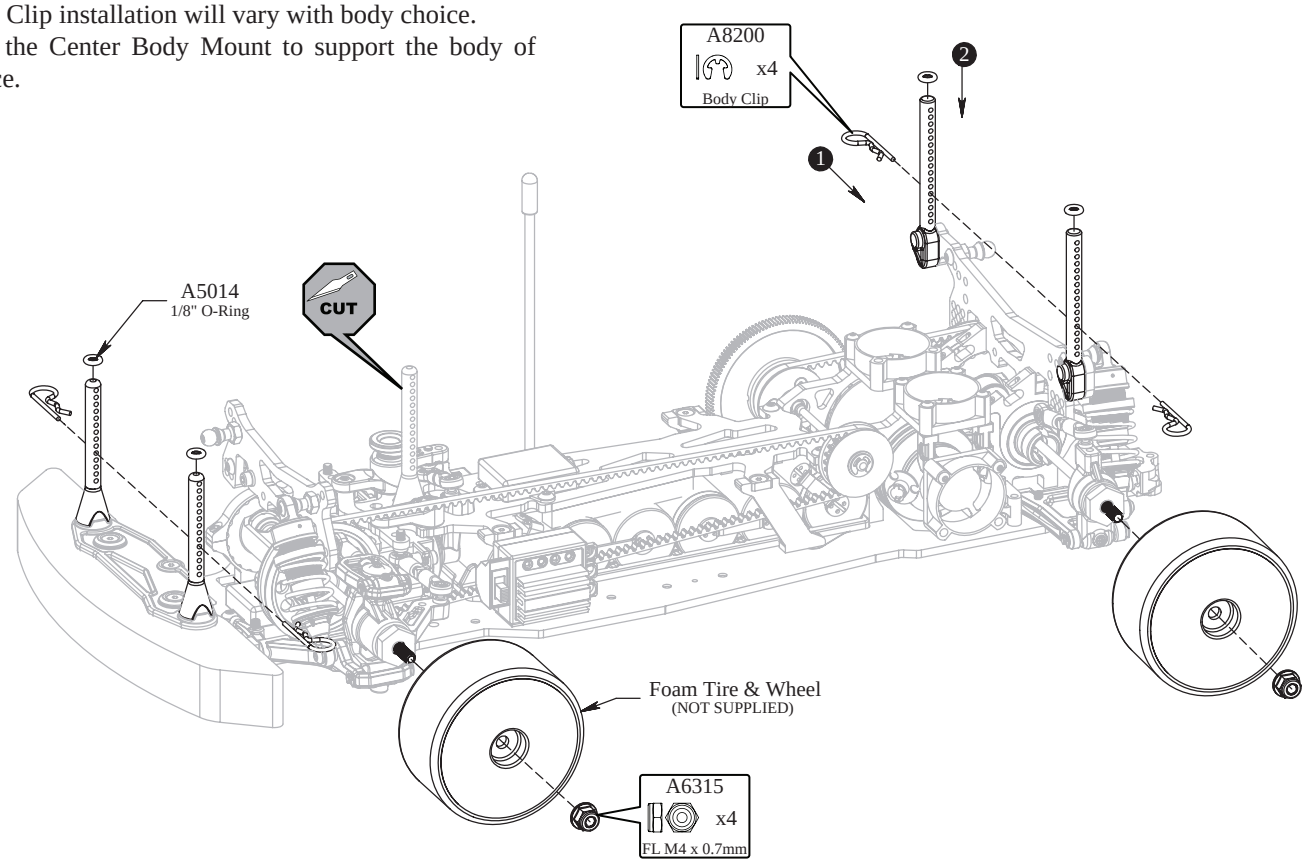
❑ STEP F-07 Cooling Fan Installation (Optional)

- Install up to three cooling fans with the supplied Fan Couplers.
- Install a Personal Transponder in one of two locations, either as shown, or under the front Differential (not shown). To install under the Front Differential, the Eccentric assembly will have to be removed from the Bulkheads.

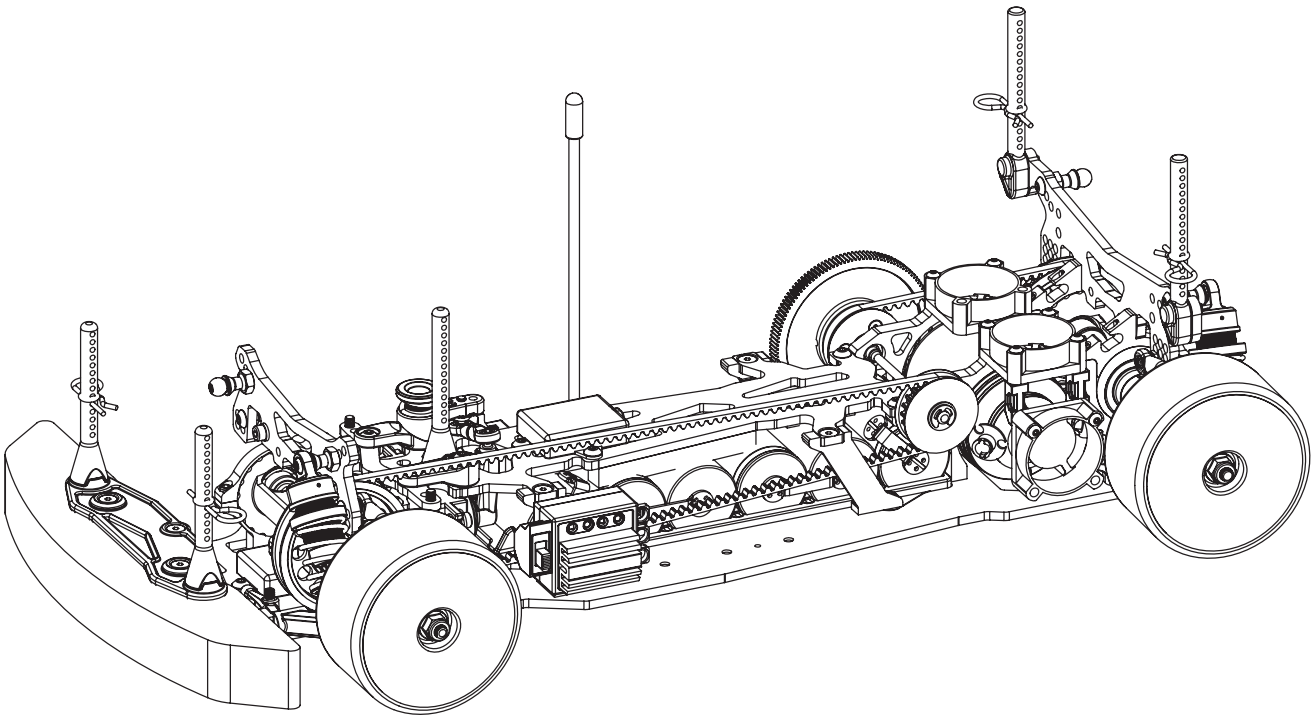


❑ STEP F-08 *Final Assembly*

- Body Clip installation will vary with body choice.
- Trim the Center Body Mount to support the body of choice.



❑ STEP F-09 *Completed JRX-S Type R*



BEFORE RUNNING YOUR NEW *JRX-S Type R* EXPERT RACING SEDAN for the first time, you should run down the following checklist in order and complete the listed tasks. We're sure you're anxious to get out and run your new *Type R* now that its built, but please note that fine tuning of the initial setup is an essential part of building a high performance racing sedan such as your new *Type R*. Following this simple Checklist and the Team Tips will help to make the first run with your new car much more enjoyable.

1. ***Adjust the Differential:***
   While holding the chassis with **only** the left side tires firmly on the ground, give the car about one quarter throttle, for 10 seconds. The right side tires should spin freely during this time. Repeat this with **only** the right side tires held firmly to the ground, allowing the left tires to spin. Feel the differential (diff) action and tighten slightly, if necessary. The differential should have a tight, thick feel when rotating it after final adjustment. ***CAUTION! YOUR DIFFERENTIAL SHOULD NEVER BE ALLOWED TO SLIP WHEN RUNNING (A SLIPPING DIFFERENTIAL CREATES A "BARKING" SOUND). IF IT DOES, STOP IMMEDIATELY AND TIGHTEN TO PREVENT DAMAGE.***
2. ***Check for free suspension movement:***
   All suspension arms and steering components should move freely. Any binds will cause the car to handle poorly.
3. ***Set the ride height:***
   Set the ride height to 4mm by adjusting the shock adjustment nuts, effectively increasing or decreasing pre-load on the springs. See the Setup Guide for additional information on ride height adjustment.
4. ***Set the camber:***
   Adjusting the tierod length changes the camber setting. Using the Team Losi flat wrench to adjust the tierods once installed. Rotating the tierods towards the back end of the vehicle will shorten the length, increasing negative camber. Rotating the tierods towards the back of the car will lengthen them, increasing negative camber. Set the front tires to have 1 degree of negative camber and ensure that they are adjusted equally, left to right. Set the rear tires to have .5-1 degrees of negative camber and ensure that they are adjusted equally, left to right.
5. ***Set the front toe-in:***
   Adjust the front steering tierods so that when the servo is centered on the transmitter, the front tires are both pointing straight. Refer to the Setup Guide for more information on toe-in/out.
6. ***Charge a battery pack:***
   Charge a battery pack as per the battery manufacturer's and/or charger manufacturer's instructions so that radio adjustments can be made. Never plug the battery into the speed control backwards.
7. ***Adjust the electronic speed control (ESC):***
   Following the manufacturer's instructions, adjust your speed control and set the throttle trim on your ESC so that the car does not creep forward when no transmitter input is applied. Make sure that there is not too much brake being applied when the trigger/stick is in the neutral position. Some speed controls have a high/low setting for the throttle and brake.
8. ***Set the transmitter steering and throttle trim:***
   The steering trim tab on the transmitter should be adjusted so that the car rolls straight when you are not touching the steering wheel/stick. If the servo was installed correctly, as per Table 2, the wheels should turn equally to the left and right. If this is not the case, refer to Table 2 and ensure that the steering servo and horn was properly installed. Make sure the throttle trim is set so that the motor does not run when in the neutral position. You may wish to run one "click" of brake to be safe.

TIPS AND HINTS FROM THE TEAM

Before you start making changes on your *JRX-S Type R* Expert Racing Sedan, you need to make a few decisions. Tires, and how they are setup, have a tremendous impact on overall performance. Before you start making changes on the chassis setup, take a movement to observe a few of the fastest cars at the track and what type of tire and inner liner they are running. Also, note the wheel diameter and width, as this can also effect how the tires perform. When making chassis changes, you should first decide where you feel the car needs to be different. This is commonly referred to as changing the "balance". Since the *Type R* is a four-wheel drive chassis, you have two ends of the car working separately, yet together. First decide if the front of the car needs to be adjusted or the back. You will want to work with the rear if the car enters the turn with the front end sticking, and tracking well, while the rear end either does not want to follow, or simply doesn't know what it wants to do. The opposite is true if the rear end seems to want to push the front end through the corners or if the front drives into the corner uncontrollably. You will notice that several different adjustments have similar effects on the handling as well. You will find the best adjustment will become a personal decision based on the "feel" that each of these adjustments yield. This also reflects on the "balance" we referred to earlier. Never make more than one change at a time; if the change you made works adversely, or doesn't address your need, return to the previous position and try something else. Team Losi's development team has put hundreds of hours on the *Type R* to arrive at the setup we put in the owner's manual. If you find that you have lost the "handle" go back to the kit (stock) setup, as this setup has proven to be reliable, consistent, and easy to drive.

All of us at Team Losi are sure that you will find the *JRX-S Type R* to be the most versatile and easiest car to drive fast, with great consistency. We hope the information in the following guide helps you to enjoy your *Type R* Sedan, and racing it, as much as we do. For the latest in setup and accessory parts information, visit the Team Losi web site at: ***www.teamlosi.com*** regularly. For any technical questions go to the "Meet the Team" tab on the left side of the page. We will try to answer your questions in the order received, to the best of our knowledge, by our own Team Losi R&D race team. Please check the Team Losi web site periodically to find out new setup information as we are always testing on all types of tracks and surfaces. Also note, that there are many ways to setup a car. The rules we follow can reverse sometimes with different driving styles or different setup styles, so test for yourself and you will find a setup that works right for you.

Motor Gearing: The important thing is to keep the motor in its optimal RPM range as much as possible around the entire track. This will depend on the straight-away length and the size of the infield turns. The chart below is a guide to give you a starting point. You may want to try gearing up (larger pinion or smaller spur) or down (smaller pinion or larger spur), one size at a time, noting the straight-away speed and acceleration through the infield.

****NOTE: OVER GEARING (TOO LARGE OF A PINION OR TOO SMALL OF A SPUR) CAN CAUSE DAMAGE TO BOTH YOUR ELECTRONICS AND MOTOR. USE CAUTION WHEN SELECTING YOUR GEARING.***

Rollout: The overall gear ratio, including the tire diameter, is compared in terms of a distance traveled (usually in mm) per revolution of the motor, called rollout. In foam tire racing, the diameter of the tire is left as an option to the racer (within a given range, set by the sanctioning body) to adjust the way the car handles. When changing the diameter of the tire, the overall gear ratio is effected. Use the formula below to calculate the rollout of the car for a given tire diameter (d), internal drivetrain ratio (i), spur gear size (s), and pinion gear size (p):

For example:

$$Rollout = \frac{(\pi \times d)}{\left(\frac{s}{p} \times i\right)} \quad \text{where} \begin{cases} \pi \approx 3.1416 \\ d = \text{Diameter of Tire } (mm) \\ s = \#\text{ of Teeth on Spur Gear} \\ p = \#\text{ of Teeth on Pinion Gear} \\ i = \text{Internal Drive Ratio (JRX-S=1.83)} \end{cases}$$

$$\text{If} \begin{cases} \pi \approx 3.1416 \\ d = 57mm \\ s = 128 \\ p = 27 \\ i = 1.83 \end{cases} \text{Then } Rollout = \frac{(3.1416 \times 57mm)}{\left(\frac{128}{27} \times 1.83\right)} = \frac{(179.07mm)}{(8.67)} = 20.6mm$$

This example gives a Rollout of 20.6mm, meaning that this car will travel 20.6mm per one revolution of the motor. Opposite of the Spur/Pinion ratio, the higher the Rollout value, the higher the gearing of the car. See Table 3 (Right) for suggested starting rollout values.

64P Pinion Gear \ 64P Spur Gear	118	120	122	124	126	128	130
21	10.28	10.46	10.63	10.81	10.98	11.15	11.33
22	9.82	9.98	10.15	10.31	10.48	10.65	10.81
23	9.39	9.55	9.71	9.87	10.03	10.18	10.34
24	9.00	9.15	9.30	9.46	9.61	9.76	9.91
25	8.64	8.78	8.93	9.08	9.22	9.37	9.52
26	8.31	8.45	8.59	8.73	8.87	9.01	9.15
27	8.00	8.13	8.27	8.40	8.54	8.68	8.81
28	7.71	7.84	7.97	8.10	8.24	8.37	8.50
29	7.45	7.57	7.70	7.82	7.95	8.08	8.20
30	7.20	7.32	7.44	7.56	7.69	7.81	7.93
31	6.97	7.08	7.20	7.32	7.44	7.56	7.67
32	6.75	6.86	6.98	7.09	7.21	7.32	7.43
33	6.54	6.65	6.77	6.88	6.99	7.10	7.21
34	6.35	6.46	6.57	6.67	6.78	6.89	7.00
35	6.17	6.27	6.38	6.48	6.59	6.69	6.80
36	6.00	6.10	6.20	6.30	6.41	6.51	6.61
37	5.84	5.94	6.03	6.13	6.23	6.33	6.43
38	5.68	5.78	5.88	5.97	6.07	6.16	6.26
39	5.54	5.63	5.72	5.82	5.91	6.01	6.10
40	5.40	5.49	5.58	5.67	5.76	5.86	5.95
41	5.27	5.36	5.45	5.53	5.62	5.71	5.80

Table 3: 64P Gear Ratio Chart

	Motor Manufacturer, Make/Model	Spur	Pinion	Suggested Rollout
Stock	EPIC Based Monster	128	32-33	25.0mm-27.0mm
	EPIC Based Binary (Two Magnet)	128	32-33	25.0mm-27.0mm
	EPIC Based Binary (Four Magnet)	128	30-31	23.5mm-25.5mm
	EPIC Based CO27	128	33-36	26.5mm-27.5mm
	EPIC Based X	128	36-37	27.5mm-28.5mm
	TOP Based (Standard Brush)	128	36-37	28.0mm-30.0mm
	TOP Based (V2)	128	36-37	28.0mm-30.0mm
	Yokomo Based	128	36-37	28.0mm-30.0mm
19T	EPIC Based Chameleon 2 19T	128	37-40	30.0mm-31.0mm
	EPIC Komodo 19T	128	32-35	29.0mm-30.0mm
	Checkpoint Based 19T	128	37-40	30.0mm-31.0mm
	Yokomo Based 19T 4 Magnet	128	37-40	30.0mm-31.0mm
	23T	128	38-41	31.0mm-32.0mm
Modified	7 Turn	128	26-27	19.5mm-20.5mm
	8 Trun	128	27-28	20.5mm-21.5mm
	9 Turn	128	28-29	21.5mm-22.5mm
	10 Turn	128	29-30	22.5mm-23.5mm
	11 Turn	128	30-31	23.5mm-24.5mm
	12 Turn	128	31-32	24.5mm-25.0mm
Brushless	3.5 Turn Sintered Rotor	128	20-22	15.5mm-16.5mm
	4.5 Turn Bonded Rotor	128	21-23	16.5mm-17.5mm
	4.5 Turn Sintered Rotor	128	22-24	17.0mm-17.5mm
	5.5 Turn Bonded Rotor	128	23-25	17.5mm-18.5mm
	5.5 Turn Sintered Rotor	128	24-26	18.5mm-19.5mm
	6.5 Turn Bonded Rotor	128	26-28	19.5mm-21.0mm
	6.5 Turn Sintered Rotor	128	28-30	21.0mm-22.0mm
	7.5 Turn Bonded Rotor	128	30-33	23.0mm-24.0mm
	7.5 Turn Sintered Rotor	128	31-34	23.5mm-25.0mm
	Novak SS5800 8.5 Turn Bonded Rotor	128	29-31	22.0mm-23.0mm
	Novak SS5800 8.5 Turn Sintered Rotor	128	29-32	22.0mm-24.0mm
	Novak SS4300 10.5 Turn Bonded Rotor	128	34-37	26.0mm-28.0mm
	Novak SS4300 10.5 Turn Sintered Rotor	128	36-39	27.0mm-29.0mm
	Novak SS13.5 Turn Bonded Rotor	128	35-39	28.0mm-30.0mm
	Novak SS13.5 Turn Sintered Rotor	128	39-42	30.0mm-32.0mm

Table 4: Suggested gearing for the JRX-S Type R Expert Racing Sedan

Tuning the Front End of the *JRX-S Type R*

Shock Location: The *Type R* has three mounting locations on the front shock tower. Leaning the shocks in (moving them closer to the center of the tower) will give a smoother transition as the car enters into the corner and improve consistency but will yield less total steering and a slower reaction. This can be useful on high bite surfaces. Standing the shocks upright (moving them further out from the center of the tower) will increase responsiveness and generate more total steering. This will also increase forward traction and on-power steering. This can be helpful on tight, technical tracks where steering is vital.

Camber Location: The *Type R* has four different camber link locations on the front shock tower. In general, the most camber gain (total camber change through the total throw of the suspension) is achieved in hole #4. Moving upward or inward will decrease the amount of camber gain. Running the camber tierod in the lower holes will increase both on and off-power steering, however the car may be a little inconsistent. If the inner camber position is raised, the car will lose some steering but gain consistency. We have found that reducing the camber gain in the front of the car best suits the balance of the *Type R*. By using a shorter link, front steering will increase, however stability and consistency may decrease. **Note: To obtain a shorter link you may have to trim the ball cup depending on the amount of Static Camber.* The *Type R* comes equipped with the "Jr" front camber link (upper arm and swivel), this link moves the outer camber link pivot point further out on the caster block, giving the car more stability on high bite conditions. The upper arm swivel is reversible to have more (high position) or less (low position) camber gain.

Static Camber: This refers to the angle of the wheels/tires relative to the track surface (viewed from either the front or back). Negative camber means that the top of the tire leans in toward the chassis. Positive camber means the top of the tire leans out, away from the chassis. Camber can be precisely measured with after market camber gauges, sold at a local hobby shop. It can be measured (roughly) using any square (to the ground) object by checking the gap between the square edge and the top of the tire. Testing has shown that 1 degree of negative camber is best for most track conditions. Increasing negative camber in the front (in the range of 1-2 degrees) will increase steering on both foam and rubber tires. Changing the static camber has a tremendous effect on the handling of the car especially with foam tires. This is, most often, a very critical adjustment in tuning your car that can be made track-side!

Toe-In/Out: This is the parallel relationship of the front tires to one another. Toe-in/out adjustments are made by changing the overall length of the steering tierods. Toe-in (the front of the tires point inward, to a point in front of the front diff) will make the car react a little slower, but have more steering from the middle of the turn, out. The opposite is true with toe-out (the front of the tires point outward, coming to a point behind the front diff), the car will turn into the corner better but with a decrease in steering from the middle of the turn, out. Toe-in will help the car to "track" better on long straights, where as toe-out has a tendency to make the car wander.

Bump-In/Out: Bump-out (front of the front tires toe-outward under suspension compression) will result in more off-power steering. This effect is obtained by adding washers under the steering spindle ball stud. Bump-In (front of the front tires toe-inward under suspension compression) will result in less off-power steering and running too much bump-in can make the steering feel very inconsistent. This effect is obtained by raising steering bellcranks. Testing has shown that running zero bump-steer (kit setup) in the *Type R* offers the best overall performance.

Front Droop: Droop is the amount of down-travel that the suspension has. It is adjusted with the outer-most set screw in the suspension arm, from the top of the arm. Droop is measured with the supplied droop gauge and adjusted by removing the front tires and setting the chassis on the droop gauge so that the gauge extends across the chassis from the center, out to the arm with the graduated notches to one side. Slide the gauge inward using the set screw boss on the bottom of the spindle carrier as a reference. The set screw boss should just clear the 3mm step on the droop gauge. Repeat this on the other side, making sure that both sides are the same. With standard 2.5" tall rubber tires you will want to maintain between 3-5mm of droop. With foam tires the droop will depend on the size of the tire. Generally with a 57mm foam tire you will want the droop gauge to be set between 2-4mm of droop. If a larger tire is used the ride height will need to be lowered and the droop will have to be readjusted. The opposite is true if a smaller tire is used. More droop will give the car more steering entering the turn and react slower. Less front droop will keep the front end flatter giving more steering response but yield less steering through the turn.

Up-travel Limiters: The up-travel of the shocks can be adjusted via the set screw in the sway bar mount/up-travel stop (over-hanging portion of the arms). With the chassis pushed down onto a flat surface (suspension compressed), pull up on the front or rear tires. This is the up-travel of the car. More up-travel is recommended for bumpy surfaces or track layouts that use berm edging or track dots. This will allow the suspension to work over those objects. Testing has shown that 3-5mm of tire up-travel for this type of track conditions is best. For smooth track layouts that are high-bite, testing showed that limiting the up-travel helps the car react faster and improves corner speed.

Kickup/Anti-dive: This is the angle of the inner front hinge pins in relation to the chassis. The amount of kickup/anti-dive is controlled with shims under the pivot blocks that mount the inner hinge pins and suspension arms to the chassis. For kickup, the shims will be placed under the pivot block in front of the arms. For anti-dive, the shims will be placed under the pivot blocks directly behind the front arms. Front kickup generally makes the car easier to drive, especially on bumpy tracks, and will give more steering entering the turn with less steering on the exit of the turn. Anti-dive will make the steering feel more aggressive initially, and give more on-power steering. Anti-dive will also improve braking traction but will decrease the chassis ability to handle bumpy surfaces. Generally we use 0 degrees of kickup/anti-dive on most track surfaces.

Caster: This is the angle of the kingpin from vertical when viewed from the side of the car. The *Type R* comes equipped with 4-degree spindle carriers, however this can be adjusted in 2 degree increments from 0 to 8 degrees. Total caster is determined by adding the amount of kickup/anti-dive and the kingpin angle of the front spindle carriers. Increasing caster in the spindle carrier will provide more steering entering a turn but less on exit. Decreasing caster in the spindle carrier will cause the steering to react faster, decrease mid-corner steering and increase on-power steering.

In-board Pin Angle: The in-board angle of the front hinge pins is adjustable in 1 degree increments from 0 to +2 degrees (angled out). The car comes with a 0 degree front pivot block. Running more inboard front toe-out (+1 or +2 degrees) will provide a more responsive feel in the steering with less overall steering. Running less in-board toe (0 degree) will result in more stability with more overall steering.

Front Arm Length: The *Type R* has the unique ability to run optional front arm lengths. The car comes with the long front arm setting as the

kit setup. Short front arm length will give the car more steering with less stability. We have found in most conditions that the long front arm is best suited for most setups. To use the optional short arm length use LOSA9739A . To maintain your roll center position, the front outer pivot will need to be flipped over to use the shorter arm pivot ball holes, and the front inner pivots will need to be reversed from the left to right to obtain the short arm pivot ball holes in the proper position.

Front Drive: The *Type R* comes with a front differential, however, the front drive can be changed to an optional one-way or spool. A front diff will give you the most consistent feel and provide more off-power steering while sacrificing some forward drive. A front differential is used with foam tire carpet racing the majority of the time. On high-bite tracks, Team Losi recommends using Team Losi Brown Diff Grease (LOSA3012) on the diff balls. Brown grease is a thicker grease than the standard clear silicone and allows the differential action to be tighter while running a looser differential setting. The brown grease will give the car a smoother feel with more on-power steering.

One-Way: One-ways are used with rubber tires on high traction asphalt and carpet tracks that are flowing without hairpin turns. A one-way lets the front tires "free wheel" individually for greater steering when you let off the throttle, and becomes a solid axle when power is applied. By creating a solid front axle, the one-way increases acceleration compared to a diff. A one-way has no front braking capabilities so all the braking is done in the rear, which can be very difficult to manage. It is recommended that when using the front one-way you use RCD's on the front to help stabilize the steering of the one-way.

Spool: A spool is a locked front axle and has the benefits of the acceleration of a one-way with the stability and precise braking capabilities of a differential. The front of the *Type R* is equipped with Team Losi LCD (Losi Constant Drive, Patent Pending) axles. The front drive axles were exclusively designed for spool type racing to eliminate the chatter that spools cause at high speed steering angles. Be sure to use these for all types of racing since they greatly enhance steering and overall handling of your *Type R*.

Tuning the Rear End of the *JRX-S Type R*

Toe-In: Having the same definition as for the front end, the toe-in can be adjusted on the *Type R* with the rear outer pivot or the rear hubs. The *Type R* has one degree of toe in built into the chassis. The stock rear pivot is a 2 degree pivot thus gives the car 3 degrees of in-board toe in. Increasing rear toe-in will increase forward traction and initial steering, but reduce straightaway speed. Decreasing rear toe-in will decrease forward traction and "free up" the car. Less toe-in can be used for stock racing to gain top speed.

Inboard Pin Angle: Placing all of the toe-in in-board will cause the weight to transfer to the front end easily, increasing off-power steering and decreasing on-power steering (more forward traction). Placing all of the toe-in in the hubs will stabilize the weight transfer, providing less initial steering entering a turn, and less forward traction.

Camber Location: The *Type R* has multiple rear camber locations. Using a longer camber link will improve stability and traction (grip). Using a shorter camber link will increase steering while decreasing rear grip. Running the camber link in the inside position (A) on the hub will generate more rotation entering a turn, but decrease steering on exit. Running the camber link in the outer position (B) on the hub will generate more stability entering a turn and increase steering on exit. Testing has shown that running the in-board rear camber ball stud in a higher location (less angle relative to arm = less camber gain) on high traction surfaces offers improved stability with decreased rear grip. Also, on low traction surfaces, running the in-board rear camber ball stud in a lower location (more angle relative to arm = more camber gain) will increase rear grip.

Static Camber: Having the same definition as for the front end and measured in the same fashion, rear camber can also be a critical tuning feature. Testing has shown that running a small amount of negative camber (-1 degree) is best. Increasing negative rear camber (in the range of 1.5-3 degrees) will increase stability and traction in corners, but decrease high speed stability. Decreasing rear camber (in the range of 0-1.5 degrees) will decrease stability and traction in corners, but will increase high speed stability.

Shock Location: Leaning the top of the shocks inward on the tower will provide less forward traction and more rotation in a corner. Moving the top of the shocks outward on the tower will provide less rotation in a corner and the car will become more responsive with increased forward traction. In general, when changing shock locations on the arm, it will be necessary to go up one spring rate when moving in on the arm and vice-versa.

Anti/Pro-Squat: In the stock configuration, the *Type R* has no squat. Anti-squat is generated by raising the rear inner pivot blocks, relative to the rear outer pivot. Anti-squat will increase forward traction and initial steering. Pro-squat is generated by raising the outer rear pivot relative to the inner pivots. This will decrease forward traction and initial steering, but provide more on-power steering. Either pro-squat or anti-squat can be increased in 1 degree increments by using .030" of shims.

Rear Droop: This is adjusted and measured in the same fashion as the front droop, but use the bottom of the hub carrier, instead of the set screw boss, for a reference. Testing has shown that with rubber tires the droop should be set between 4-5mm with 5mm being the starting point. For foam tire racing it again depends on the tire size to get your desired droop. With a 57mm tire a droop setting of 5mm is a good starting point. More droop will result in smoother chassis reaction and more rear grip while less rear droop will react faster and possibly become a little abrupt.

Variable Length Rear Arm: The *Type R* comes standard with a long rear arm setting with standard hubs. The long arm setting offers the most consistent setup for most tracks. By flipping the pivot and reversing the inner rear pivots a short arm can be used and roll center maintained. The shorter arm will give the car more steering by letting the car roll more, over the rear, which could be advantageous on small tight technical tracks. When using the short rear arm setting use the inner shock location on the arm to have the same wheel rate.

Rear Hub Location: The *Type R* comes standard with a long rear arm setting. Testing has shown this to offer the best, and most consistent,

setup from track to track. The optional offset hubs, short rear arm setting, (LOSA9854 (0-Degree), LOSA9855 (0.5-Degree), and LOSA9856 (1-Degree)) offer more steering and have been extremely useful on carpet/foam tire racing.

Tuning the Chassis of the *JRX-S Type R*

Arm Spacing: The *Type R* has options for changing the wheelbase by moving the front and/or rear suspension arms forward and back. Moving the .0625" shims in the front or behind the arms changes the wheelbase. A longer wheelbase will provide a smoother feeling setup. A shorter wheelbase will provide a more aggressive steering setup. In the front the wheelbase has the adjustability of .125". In the rear the wheelbase has the adjustability of .0625". By moving the rear arms forward the car will have more driveshaft angle which gives the car more traction on-power with more initial off-power steering.

Roll Center: The roll centers of the *Type R* can be easily adjusted by flipping the pivot blocks (that came in the kit) and/or by adding equal shims under the inner and outer pivots. The stock setup utilizes low roll centers without shims. Testing has shown that low roll centers are best suited for foam tire racing. A higher roll center will keep the car from rolling (leaning), making the car react faster and have more traction. A low roll center allows the car to roll more and react slower reducing responsiveness in and out of the turns. On low bite outdoor tracks with rubber tires a high roll center will yield the best results. There is a .110" of pin height difference between high and low roll center positions.

Diff Height: **Caution! When adjusting the differential heights, rotate the eccentrics as to loosen the belts, rotating the belts in the opposite direction, with the belts installed can severely damage the belts.** Diff heights in the *Type R* are also adjustable by rotating the eccentrics that position them. The diffs can be adjusted from a full low position to a full high position. The low position will allow the car to roll more and keep the car in the turn longer, increasing on-power steering. The high position will give the car a flatter and more responsive feel. It is also possible to change the balance of the car quite drastically by offsetting the heights of the diffs from front to rear. On asphalt tracks with rubber tires, testing has shown the best results with the rear diff in the low position and the front diff in the high position. On carpet with foam tires running the diffs in the low position has yielded the best results.

Belt Tension: The eccentrics have infinite adjustment positions. Testing has shown that the best setting for the belt tension is to have 3-4mm of vertical play. Simply move the belt up and down with your fingers and tighten down the bulkhead screws to get the desired settings. Generally a tighter belt tension will give more torque and less top end. A looser belt tension will have less torque and more top end.

Ride Height: This is the height of the chassis in relation to the surface of the track. A higher ride height may be used on bumpy or slick surfaces, improving overall handling by generating more weight transfer and chassis roll. A lower ride height will make the car change direction quicker and should be helpful on high-bite surfaces such as carpet. Testing has show that offsetting the ride height, front to rear (running the rear ride height 1/2mm higher than the front) will increase steering into the turn. Generally for carpet racing on foam tires a desired ride height is 4mm. On asphalt or carpet with rubber tires the ride height is kept between 4.5 to 5mm. Please check with your local track for their minimum ride height requirements.

Over/Under-Drive: The *Type R* is capable of utilizing overdrive (make the front tires turn faster than the rear) or under-drive (make the front tires turn slower than the rear). Using a 41T pulley in the front of the car will give it overdrive. This will give the car more steering. Using the 41T pulley in the back of the car will give it under-drive. We have found this to be useful when less steering is needed. Under-drive will also help the car accelerate through bumps better. It is also possible to run a 41T pulley in the front and back, but it is not recommended. **Note: If the pulleys become mixed up, they can be distinguished by a ridge, located in the flange on the 42T pulley. The 41T pulley does not have any type of marking on the flange area.*

Hex Widths: The *Type R* comes equipped with plastic narrow hexes (.165"). With Team Losi Aluminum Clamping Hexes it is possible to widen the car in .030" increments. The rear of the car is maxed out at 190mm, however the front can be widened with different hexes. LOSA9686 (.195") and LOSA9687 (.225") and the stock size is LOSA9685 (.165"). Using the wider hexes can be advantageous with different wheel offsets from various wheel manufacturers.

Weight Placement: Due to the symmetric chassis layout and centered weight design of the *Type R*, weight placement has become an important tuning feature instead of just being used for equal balance as with other chassis models. By running the weight bias towards the front, the car the initial steering will be smoothed out and the car will have less overall steering. By running the weight bias towards the rear, the car will gain more responsiveness and more overall steering. For stock racing it is important to keep the weight bias 52% in the front and 48% in the rear which will give the car a smoother feel with the drag brake effects of stock motors. In modified racing the weight bias should be 50% front and 50% rear. If more steering is needed, try moving the weight further back and vice versa. Weight bias can be easily adjusted by moving your receiver and speed control forward or back. The *Type R* also has balancing holes located in the chassis, there are one at each end and one on each side. These small holes can be used with balancing pin blocks or simply serve as a reference for supporting your car to check the weight balance from side to side or front to rear. Note that the holes located on each side are positioned exactly in the middle of the differential centers, not in the middle of the wheel base (since that is adjustable with arm spacing, caster, and toe-in/out).

Battery Pack: The unique centered weight design of the *Type R*, along with battery trays to fit, allows for the use of many different types of battery packs. For the first time in sedan racing, you can simply replace your standard side-by-side NiMH battery pack with a LiPo battery pack and the side to side weight balance of your car will remain the same. With other designs it is necessary to add weight to balance the chassis from left to right, forcing you to increase the weight of the car. This same concept also allows for the use of four and five cell battery packs as now required by some sanctioning bodies throughout the world. This gives you...a *Type R* owner, the ability to maintain your cars performance and low weight in any racing category. Please note that with the adjustability of the wheel base, it is still necessary to re-check your front to rear weight bias when changing battery packs.

Setup Notes: _____

KIT SETUP

Name: Date: Event:

City: State: Track:

Track Conditions: ❑ Indoor ■ Outdoor | ❑ Tight ■ Open | ■ Asphalt ❑ Concrete ❑ Carpet | ❑ Sealed ■ Smooth ❑ Rough | ❑ Low Bite ■ Med Bite ❑ High Bite

Front Suspension

Toe: 1° Toe Out
Ride Height: 4.5mm
Camber: -1°
Kick/Anti-Dive: 0°
Caster: 4°
Droop: 3mm Above Ride Height
Front Pivot: ■ 0º ❑ 1º ❑ 2º
Roll Center: Low
Arm Spacing: Middle
Shock Position: 2
Steering Rack: 2
Spindle Ackerman: 1
Camber Link: 3
Camber Ball Stud: "Jr" Link
Sway Bar: .040"

Up Travel:
Arm Length: ❑ Short ■ Long

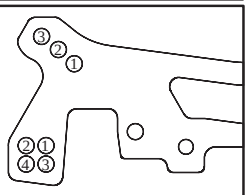
Front Drivetrain

Front Drive: ■ Spool ❑ One-way ❑ Diff
Grease Type:
Pulley: ❑ 41 ■ 42
Diff Height: ■ High ❑ Low
Drive Axle: LCD
Hex Width: ■ .165 stk. ❑ .195 ❑ .225

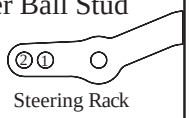
Shocks

Oil: 40wt
Oil Brand: Team Losi
Piston: 56
Spring: 15lb.
Bladder: Black
Above Bladder: 2 O-Rings

"JR" Link
❑ High
■ Low

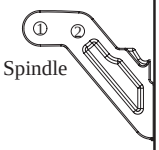


0 # of Washers Under Ball Stud
0 Size Of Washer
Tall Type of Ball Stud



Steering Rack

0 # of Washers Under Ball Stud
0 Size Of Washer
Tall Type of Ball Stud



Spindle

Rear Suspension

Toe: 3°
Ride Height: 4.5mm
Droop: 4mm Above Ride Height
Camber: -1°
Anti/Pro Squat: 0
Hub: ■ STD. ❑ Offset ■ 0º ❑ 1/2º ❑ 1º ❑ 2º
Rear Pivot: ❑ 0º ❑ 1º ■ 2º
Roll Center: Low
Arm Spacing: Back
Shock Position: 1/Outside
Camber Link: 5/B
Camber Link Ball Stud: Tall
Sway Bar: .030"

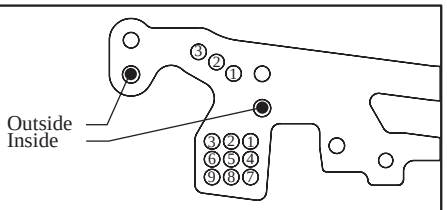
Up Travel:
Arm Length: ❑ Short ■ Long

Rear Drivetrain

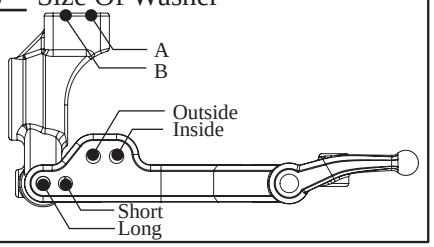
Diff Height: ❑ High ■ Low
Drive Axle: RCD
Hex Width: ■ .165 stk. ❑ .195 ❑ .225

Shocks

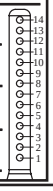
Oil: 35wt
Oil Brand: Team Losi
Piston: 56
Spring: 10lb.
Bladder: Black
Above Bladder: 2 O-Rings



0 # of Washers Under Ball Stud
0 Size Of Washer



Body
Wing
FR Body Hole ❑ Inside ❑ Outside
RR Body Hole ❑ Inside ❑ Outside
5th Body Hole
Body Height



Motor
Turns
Brushes
Springs
Timing

Spur Gear 128
Pinion Gear
Ratio
Roll Out
Fans

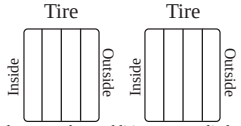
Servo
ESC
Receiver
Battery
Transponder Location

Tires:

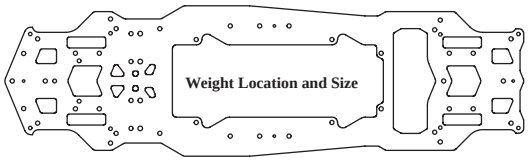
	Brand/Compound	Size (mm)	Insert	Wheel
Front:				
Rear:				

Tire Warmers ❑ YES Temp ____ °F or ℃ ❑ NO

Tire Additive



Shade areas where additive was applied



NOTES: Kit setup for outdoor rubber tires.

TEN-SCT RACING SETUP SHEET JR8

Name: Date: Event:

City: State: Track:

Track Conditions
❑ Indoor ❑ Tight ❑ Asphalt ❑ Sealed ❑ Low Bite
❑ Outdoor ❑ Open ❑ Concrete ❑ Smooth ❑ Med Bite
❑ Carpet ❑ Rough ❑ High Bite

Front Suspension

Toe: _____
Ride Height: _____
Camber: _____
Kick/Anti-Dive: _____
Caster: _____
Droop: _____
Front Pivot: ❑ 0º ❑ 1º ❑ 2º
Roll Center: _____
Arm Spacing: _____
Shock Position: _____
Steering Rack: _____
Spindle Ackerman: _____
Camber Link: _____
Camber Ball Stud: _____
Sway Bar: _____

Up Travel: _____
Arm Length: ❑ Short ❑ Long

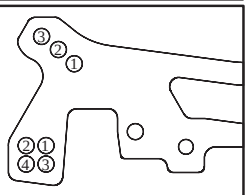
Front Drivetrain

Front Drive: ❑ Spool ❑ One-way ❑ Diff
Grease Type: _____
Pulley: ❑ 41 ❑ 42
Diff Height: ❑ High ❑ Low
Drive Axle: _____
Hex Width: ❑ .165 stk. ❑ .195 ❑ .225

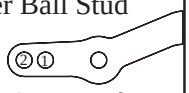
Shocks

Oil: _____
Oil Brand: _____
Piston: _____
Spring: _____
Bladder: _____
Above Bladder: _____

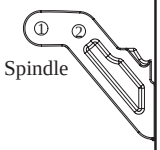
"JR" Link
❑ High
❑ Low



_____ # of Washers Under Ball Stud
_____ Size Of Washer
_____ Type of Ball Stud



_____ # of Washers Under Ball Stud
_____ Size Of Washer
_____ Type of Ball Stud



Rear Suspension

Toe: _____
Ride Height: _____
Droop: _____
Camber: _____
Anti/Pro Squat: _____
Hub: ❑ STD. ❑ Offset ❑ 0º ❑ 1/2º ❑ 1º ❑ 2º
Rear Pivot: ❑ 0º ❑ 1º ❑ 2º
Roll Center: _____
Arm Spacing: _____
Shock Position: _____
Camber Link: _____
Camber Link Ball Stud: _____
Sway Bar: _____

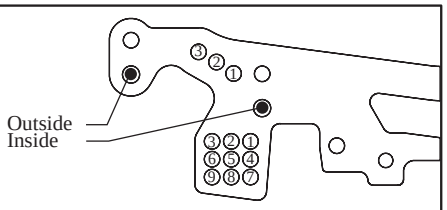
Up Travel: _____
Arm Length: ❑ Short ❑ Long

Rear Drivetrain

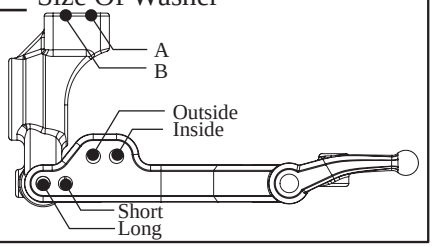
Diff Height: ❑ High ❑ Low
Drive Axle: _____
Hex Width: ❑ .165 stk. ❑ .195 ❑ .225

Shocks

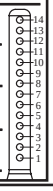
Oil: _____
Oil Brand: _____
Piston: _____
Spring: _____
Bladder: _____
Above Bladder: _____



_____ # of Washers Under Ball Stud
_____ Size Of Washer



Body _____
Wing _____
FR Body Hole _____
RR Body Hole _____ ❑ Inside ❑ Outside
5th Body Hole _____
Body Height _____



Motor _____
Turns _____
Brushes _____
Springs _____
Timing _____

Spur Gear _____
Pinion Gear _____
Ratio _____
Roll Out _____
Fans _____

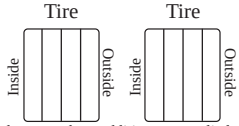
Servo _____
ESC _____
Receiver _____
Battery _____
Transponder Location _____

Tires:

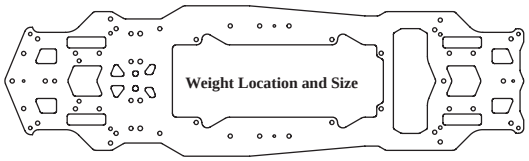
	Brand/Compound	Size (mm)	Insert	Wheel
Front:				
Rear:				

Tire Warmers
❑ YES Temp _____ °F or ℃
❑ NO

Tire Additive



Shade areas where additive was applied



NOTES:

HARDWARE

Cap Head

2-56 x 1/4" (A6232)
2-56 x 5/16" (A5330)
4-40 x 3/8" (A6206)
4-40 x 1/2" (A6204)

Flat Head

2-56 x 3/16" (A6239)
4-40 x 1/4" (A6213)
4-40 x 3/8" (A6210)

Button Head

2-56 x 1/4" (A6255)
2-56 x 1/2" (A6236)
4-40 x 1/8" (A6212)
4-40 x 3/16" (A6257)
4-40 x 1/4" (A6234)
4-40 x 5/16" (A6245)
4-40 x 3/8" (A6229)
4-40 x 1/2" (A6256)
3mm x 6mm (A6238)

Set

4-40 x 3/32" (A6248)
4-40 x 1/8" (A6227)
4-40 x 5/16" (A6248)
Locating Pin (A6243)
4-40 x 5/8" (A6248)
5-40 x 3/16" (A6251)

Ball Studs

Female (A6009)
.215" Standard Neck HD (A6025)
1/4" Standard Neck HD (A6026)

Washers

#2 x .015 (A6360)
Ball Stud (A6215)
#4 x .030 (Gold) (A6350)
#4 x .025 (Silver) (A1218)

Metal Spacers

3/16" x 5/16" x .015" (A6230)
4mm x 1.3mm (A3253)
3/16" x 5/16" x .130" (A6365)

Plastic Spacers

1/8" x 1/16" (.0625") (A2127)

Ball Bearings

4mm x 7mm (A6917)
4mm x 8mm (A6936)
3/16" x 3/8" (A6916)
1/4" x 3/8" (A6931)

Roll/Solid Pins

1/16" x 5/16" Solid LCD (A3335)
.067" x 5/16" Solid (A6406)
1/16" x .390" Solid RCD (A3341)
1/16" x 1/2" Solid (A3253)
3/32" x .735" Hinge (A6080)
3/32" x .930" Hinge (A6081)
1/8" x 2.0625" Hinge (A6091)
1/8" x 2.125" Hinge (A6094)

Retaining Clips

3/32" E-Clip (A6103)
4mm E-Clip (A6106)
Body Clip (A8200)

Nuts (Lock/Plain)

L 4-40 x 3/16" (Mini) (A6306)
FL M4 x 0.7 (Alum.) (A6315)

DETAIL ICON REFERENCE KEY

1 These numbers are used to identify the critical order in which assembly must occur. *Note: They will not call out every stage of the assembly process.

- LOCTITE — Apply Loctite®
- CLEAR GREASE — Apply Clear Grease
- GLUE — Apply CA Glue
- GREASE — Apply Synthetic White Grease
- OIL — Fill With Silicone Oil
- Pre-Tap
- Pay Special Attention
- CUT — Cut/Trim
- Ensure Free Movement
- Ensure Free Rotation
- Ensure Proper Orientation
- Push Firm
- L — Side Shown
- JL RR — Assemble Other Side the Same
- x2 — Repeat/Build Multiple
- Screw Partially
- **DO NOT** Over Tighten/ Snug Tight
- Tighten

BUILD SETUP

Name: Date: Event:

City: State: Track:

Track Conditions: ■ Indoor ■ Tight ❑ Asphalt ❑ Sealed ❑ Low Bite
❑ Outdoor ❑ Open ❑ Concrete ■ Smooth ■ Med Bite
■ Carpet ❑ Rough ❑ High Bite

Front Suspension

Toe: 0°
Ride Height: 4mm
Camber: -1°
Kick/Anti-Dive: 0°
Caster: 4°
Droop: 1mm Above Ride Height
Front Pivot: ■ 0º ❑ 1º ❑ 2º
Roll Center: Low
Arm Spacing: Middle
Shock Position: 1
Steering Rack: 2
Spindle Ackerman: 1
Camber Link: 1
Camber Ball Stud: "Jr" Link
Sway Bar:

Up Travel:
Arm Length: ❑ Short ■ Long

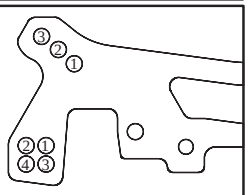
Front Drivetrain

Front Drive: ❑ Spool ❑ One-way ■ Diff
Grease Type: TL Silicone
Pulley: ❑ 41 ■ 42
Diff Height: ■ High ❑ Low
Drive Axle: LCD
Hex Width: ■ .165 stk. ❑ .195 ❑ .225

Shocks

Oil: 50wt
Oil Brand: Team Losi
Piston: 56
Spring: 30lb.
Bladder: Black
Above Bladder: 0

"JR" Link
❑ High
■ Low

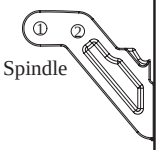


0 # of Washers Under Ball Stud
0 Size Of Washer
Tall Type of Ball Stud



Steering Rack

0 # of Washers Under Ball Stud
0 Size Of Washer
Tall Type of Ball Stud



Spindle

Rear Suspension

Toe: 3°
Ride Height: 4mm
Droop: 2mm Above Ride Height
Camber: -2°
Anti/Pro Squat: 0
Hub: ■ STD. ❑ Offset ■ 0º ❑ 1/2º ❑ 1º ❑ 2º
Rear Pivot: ❑ 0º ❑ 1º ■ 2º
Roll Center: Low
Arm Spacing: Forward
Shock Position: 3/Outside
Camber Link: 7/A
Camber Link Ball Stud: Tall
Sway Bar:

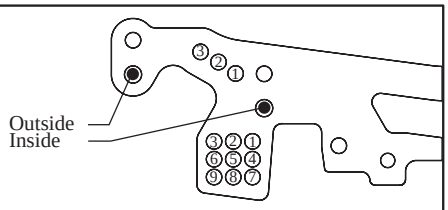
Up Travel:
Arm Length: ❑ Short ■ Long

Rear Drivetrain

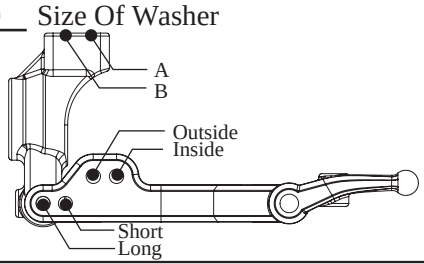
Diff Height: ❑ High ■ Low
Drive Axle: RCD
Hex Width: ■ .165 stk. ❑ .195 ❑ .225

Shocks

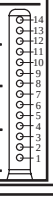
Oil: 50wt
Oil Brand: Team Losi
Piston: 56
Spring: 17.5lb.
Bladder: Black
Above Bladder: 0



0 # of Washers Under Ball Stud
0 Size Of Washer



Body
Wing
FR Body Hole ❑ Inside ❑ Outside
RR Body Hole ❑ Inside ❑ Outside
5th Body Hole
Body Height



Motor
Turns
Brushes
Springs
Timing

Spur Gear 128
Pinion Gear
Ratio
Roll Out
Fans

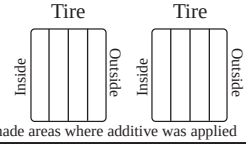
Servo
ESC
Receiver
Battery
Transponder Location

Tires:

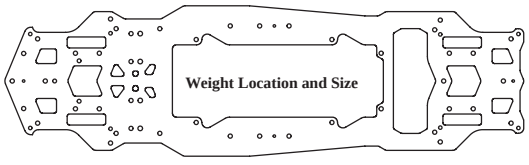
	Brand/Compound	Size (mm)	Insert	Wheel
Front:				
Rear:				

Tire Warmers ❑ YES Temp ____ °F or ℃ ❑ NO

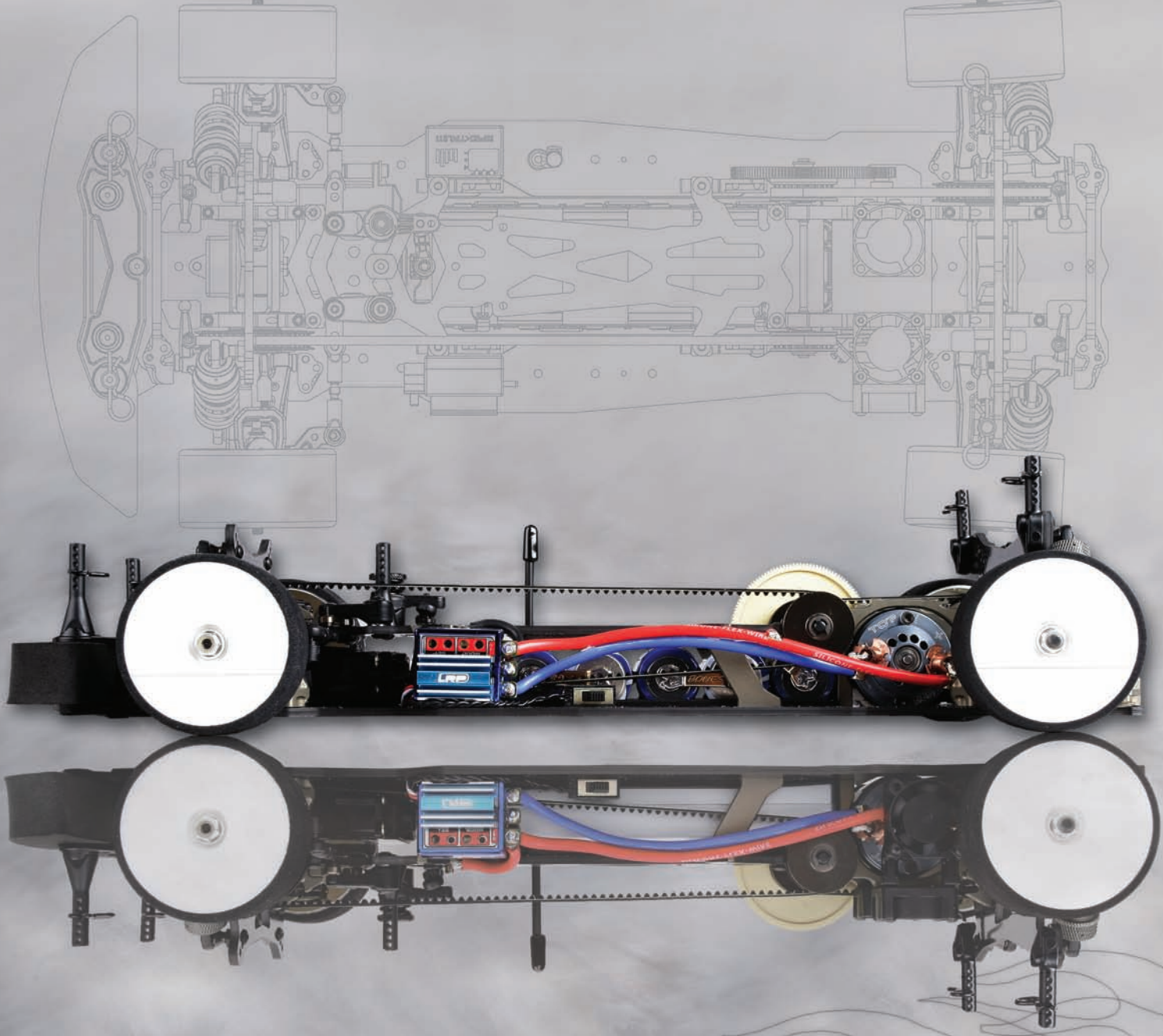
Tire Additive



Shade areas where additive was applied



NOTES: Kit setup for foam tires.



ALWAYS RACING TOWARDS THE FUTURE.

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