Assembly Manual

For G9

Economy Kit

INTRODUCTION

At NC Chassis we greatly appreciate your purchase of our Economy Kit. We are continuing our effort to provide the best product packages in Quarter Midget racing.

As you read through this manual please call with any questions. You can reach Customer Service at (330) 798-7744. **Refer** to the Spec Sheets and Axle Alignment Block Kit for proper measurements and settings when positioning the front and rear axles once assembly is complete.

Dirt Set-Up Kit

For chassis kits purchased as a Dirt Set-Up there are two differences that you will need to be aware of upon assembly. The steering shaft has two holes in each ear for the steering rods. Use the top hole. The second difference is the left steering rod length. Instead of an 8 ½" rod length you will have a 9" rod length. If you have any questions; please contact us at NC Chasssis.

Disclaimer Notice

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In no event will we be liable for any loss or damage including without limitation, indirect or consequential loss or damage. Implied warranties of merchantability and fitness are expressly excluded, and buyer/user bears the risk as to quality, performance and use of products or information.
Racing is a hazardous sport, serious injury or even death can result. User assumes all risks associated with use.

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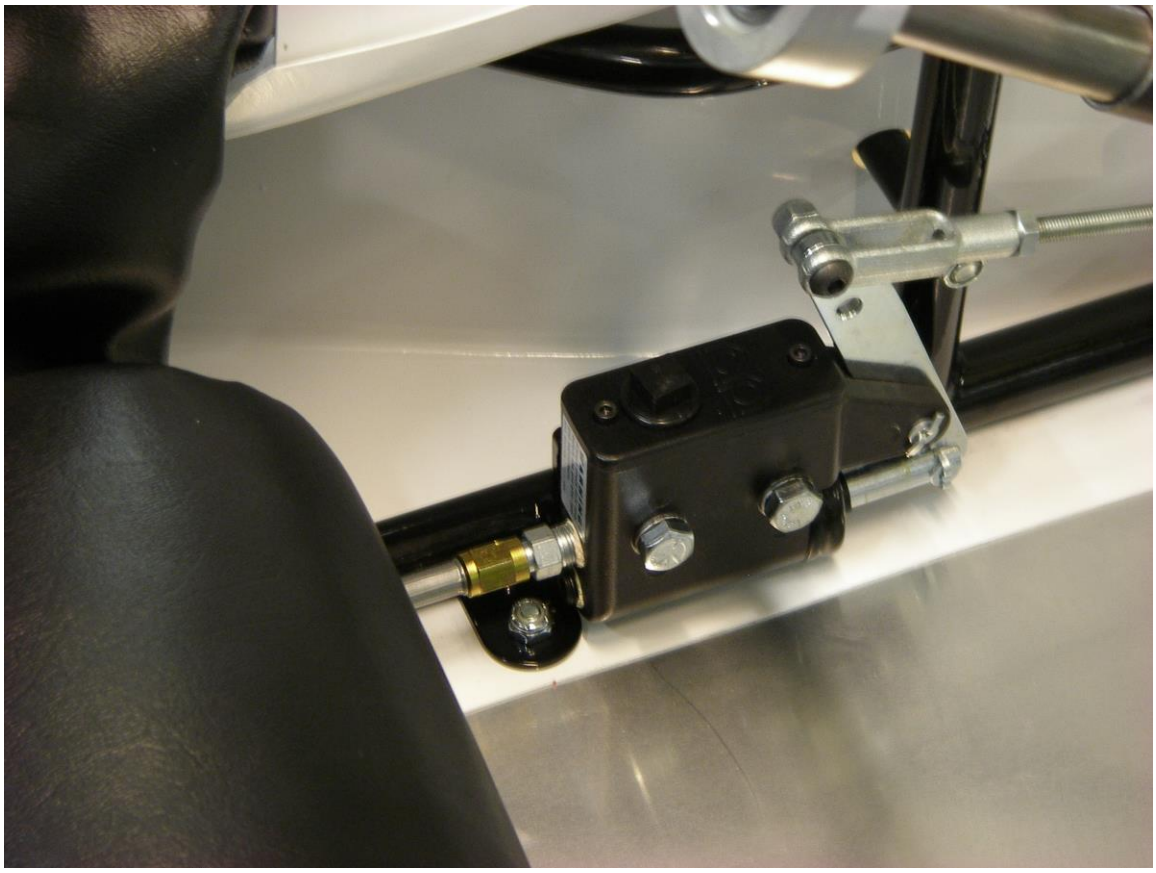
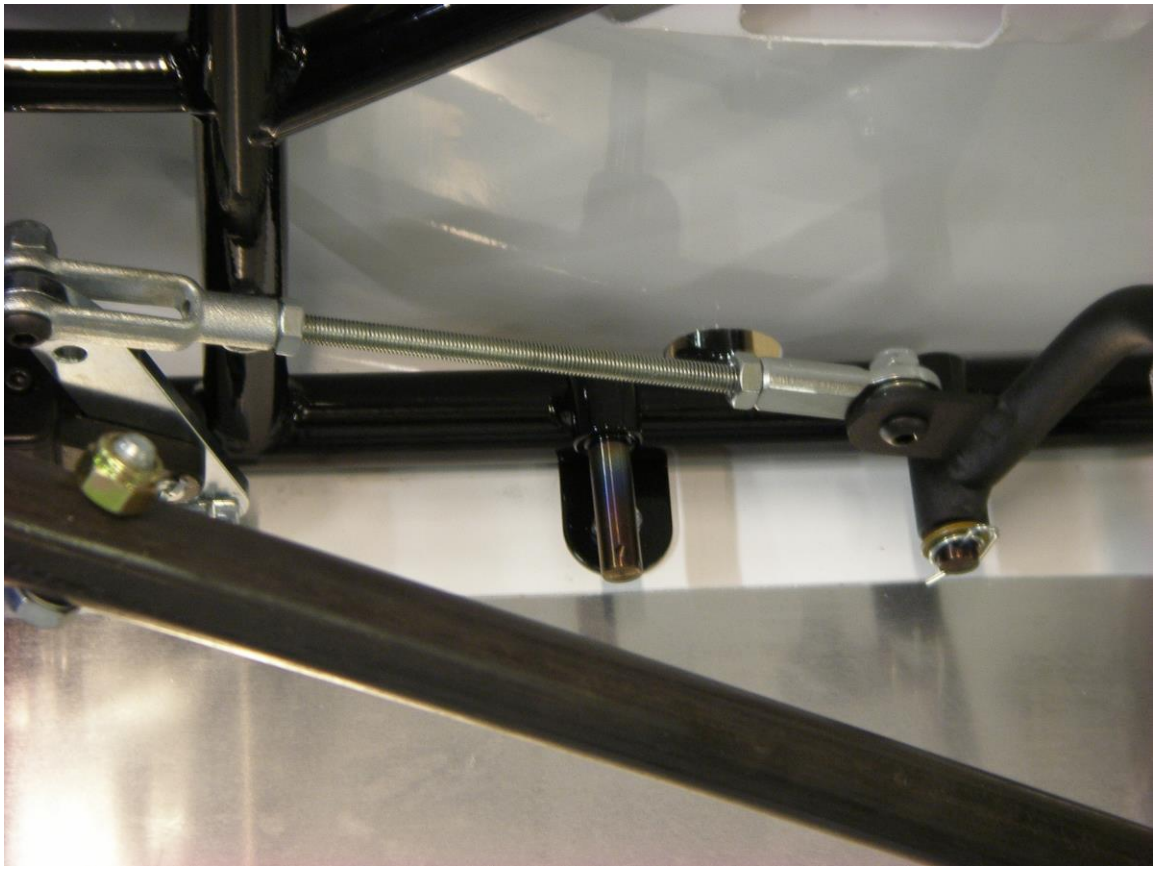


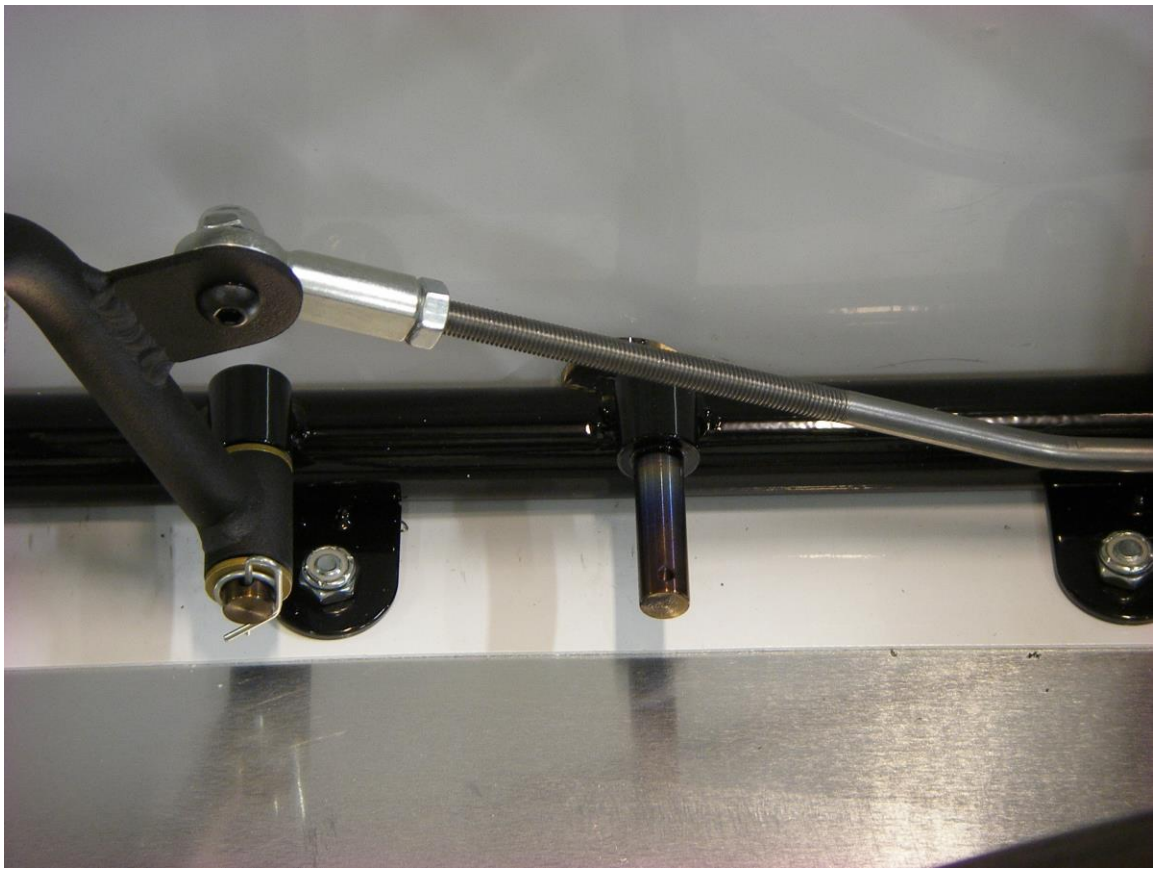
Brake Master Cylinder

Mount the brake master cylinder as shown. There is one 5/16” bolt that is longer than the other; we use this bolt for the ground wire running to the ignition switch. The brake line can then be tightened to the master cylinder and using zip ties fasten the brake line to the bottom frame rails over to the right side of the car and towards the back where it will thread onto the rear brake caliper (4-5 zip ties is all that’s needed).



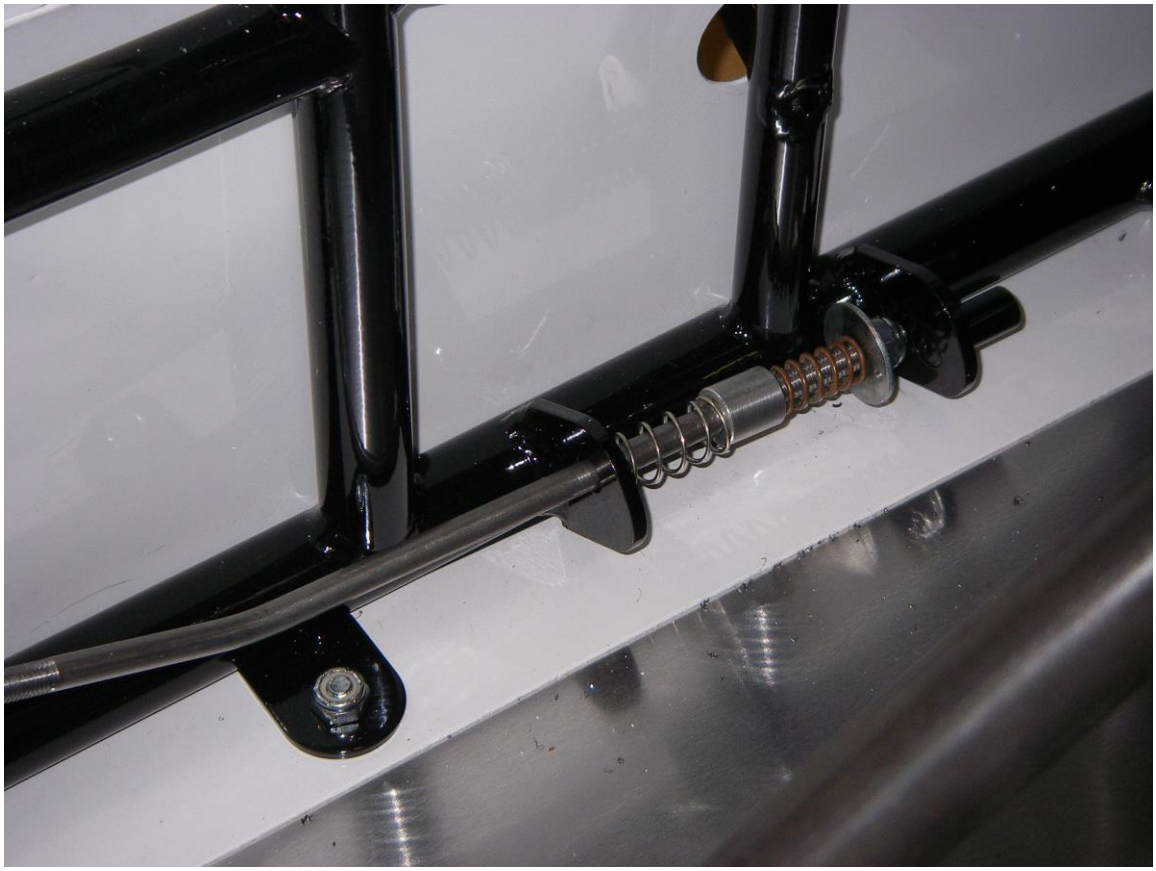
Brake Pedal Assembly

Same as the throttle pedal assembly pick the pedal pin position that fits the driver best for leg room. Grease the pin well and slide the pedal and washers onto the pin (one washer on each side of the pedal). The brake rod may need to be cut to a different length. Determine this length by bolting the rod to the master cylinder and hold the pedal in a position that is either straight up and down or slightly forward or slightly backward, whichever is desired. Then raise the rod up to the pedal with the female rod end and mark a cut line accordingly.



Throttle Pedal

Choose which pedal pin position is best for the driver for leg position of the driver. Grease the pedal pin of choice and slide the pedal and washers onto the pin (one washer on each side of the pedal). Now when installing the throttle rod you may need to cut the rod at the pedal end for the proper length based on the pedal position. Refer to the Throttle Linkage (Pg.4).



Throttle Pedal Linkage

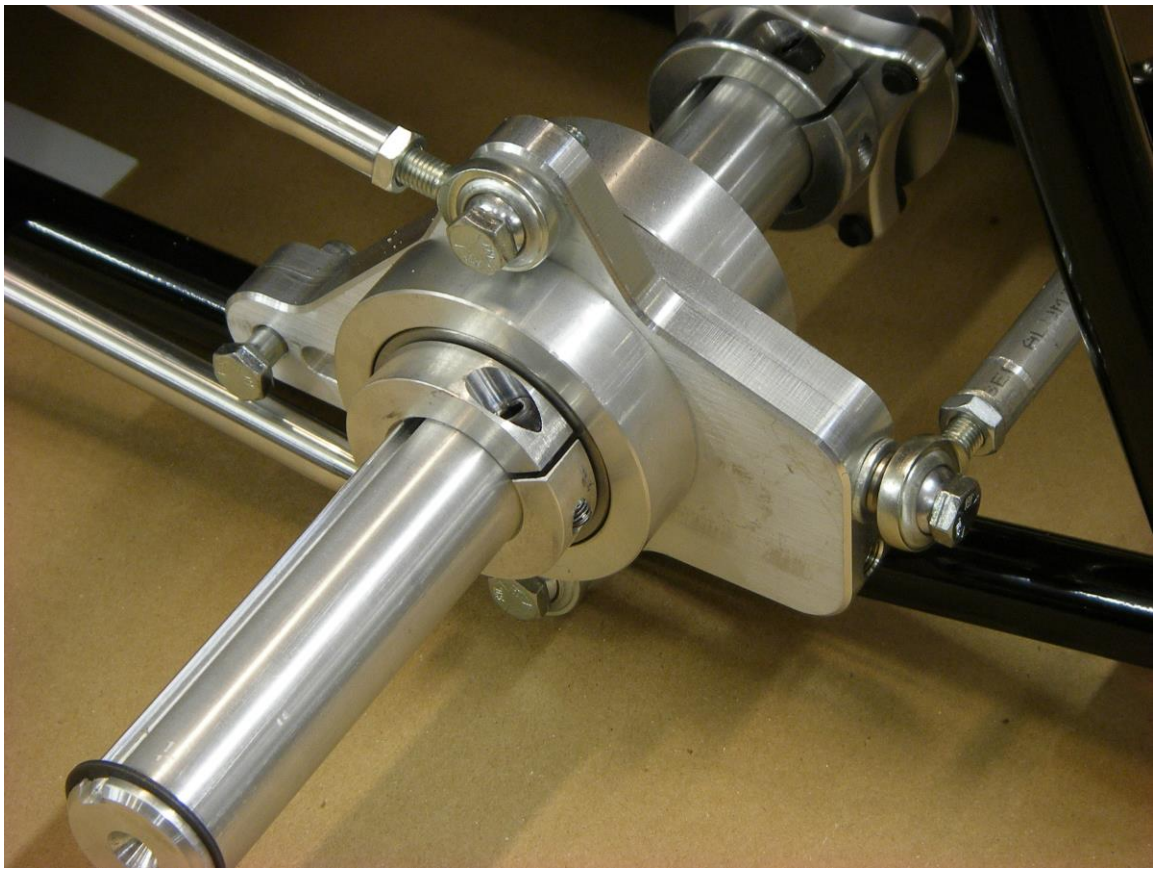
Once the throttle pedal is slid onto the mounting pin, the throttle rod can be installed as shown. Not shown is our new throttle cable block; which takes replaces the large washer that is pictured. Once you have determined which pedal pin is going to be used; you will need to make sure the length of the rod is correct. To do this slide the rod through the hole towards the back of the car until the rod and nylock nut are pressed against the second linkage tab welded to the frame as shown. Now hold the pedal in a position that is either straight up and down or slightly forward or backward, whichever is desired. Then with the female rod end bolted to the pedal mark a cut line accordingly (you want to have as much of the rod threaded in the female rod end as possible). Note that the rod may need slightly bent to achieve the proper length. After installing this rod make sure that when you push on the pedal the throttle rod slides through the frame bracket on a parallel plain with the main frame rail and without any bind. So in other words you do not want this rod running up hill or downhill as it passes through the hole. To do this you may need to slightly increase or decrease the bend in the rod.

Steering Shaft Bracket

Utilizing the provided hardware mount this bracket as shown. Keep in mind that the steering shaft is adjustable in length so once you slide the steering shaft through this bracket and bolt it into the front axle you may need to lengthen or shorten the shaft based on driver comfort. Also keep in mind that when the car is on the ground at ride height the steering shaft will move towards the driver because the front axle will be elevated up off the chassis.

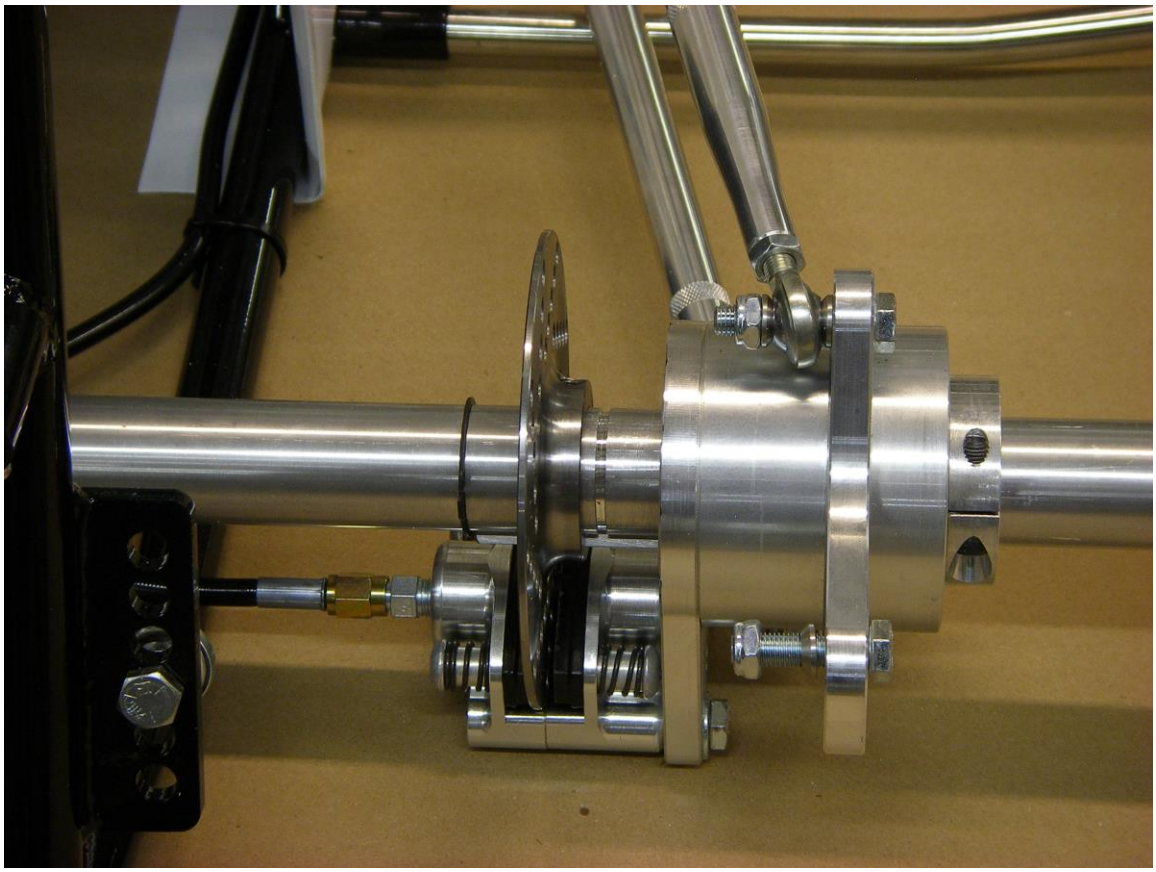
Radius Rods

There is 11 radius rods total for the chassis. 9 of those radius rods bolt directly to the frame and 2 are steering radius rods that bolt to the steering shaft and spindles. Measure and bolt on accordingly. Refer to the Measurement Sheet for these specifications (picture above is the left rear radius rods).



Left Rear Axle Assembly

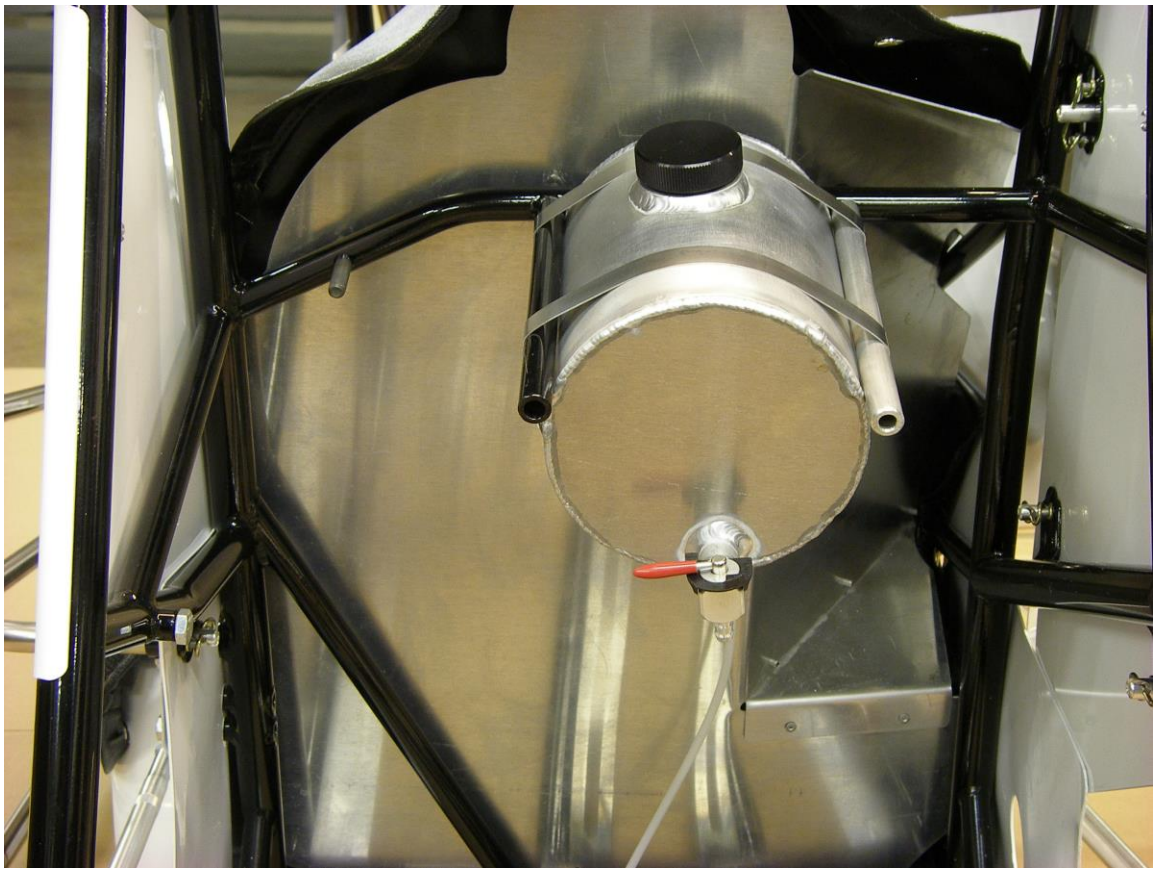
Slide the rear axle into the back of the car. Utilizing the provided hardware; bolt the radius rods to the birdcage as shown.



Right Rear Axle Assembly

Utilizing the provided hardware; bolt the radius rods to the birdcage as shown. Once the birdcage is securely bolted you can tightened the brake line to the brake caliper.

At this time once the brake line is tight you can bleed the brakes. It is sometimes easier to disconnect the brake caliper from the birdcage to bleed out all the air.



Gas Tank Position

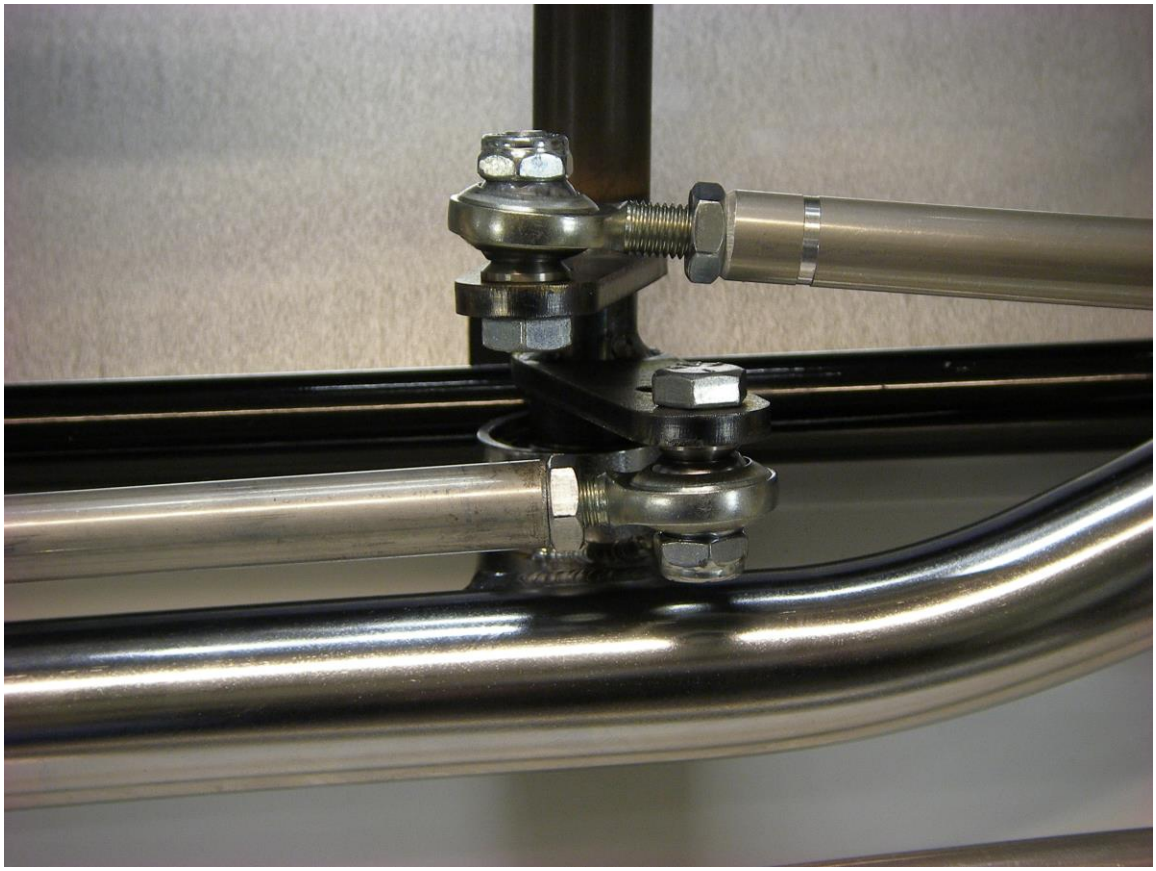
The gas tank can be mounted to the left or right of the chassis. Thread the aluminum rod onto the desired threaded spud and mount the tank securely as shown. Typically the gas tank is best on the right for Honda engines and left for Briggs and Deco engines. When using a 4” diameter tank; the left mounting position is used.

Left Front Axle Assembly

Slide the front axle into the chassis. Bolt the left front radius rods to the axle as shown. There should be a beveled washer on the shock bolt. Be sure to have the beveled washer between the lower shock rod end and the axle bracket. Otherwise the shock may be bound-up against the axle bracket. When the shock bolt is tight; you should be able to easily pivot the shock on the ball of the rod end. No different than the radius rods.

Right Front Axle Assembly

Bolt the right front radius rods to the right side of the axle as shown. When bolting the shock to the axle bracket make sure to keep the beveled washer between the lower shock rod end and the axle bracket. When the shock bolt is tight you should be able to easily pivot the shock on the ball of the rod end. No different than the radius rods.



Front Axle to Steering Shaft

Remove the bolt threaded into the bottom of the steering shaft. Leave the steel spacer on the shaft and slide the bottom of the shaft into the front axle bearing. At this point the steel spacer should be between the steering shaft lower ear and the top of the front axle bearing. Lifting the front axle thread the steering shaft bolt back into the shaft with the provided washers still on the bolt. These washers help keep the bolt tight but they also help to provide the correct amount of up and down movement in the steering shaft. This is necessary for the steering shaft to not bind under load. Connect the right steering rod to the lower steering shaft ear as shown. Then bolt the left steering rod to the upper steering shaft ear as shown. I M P O R T A N T: There is two holes in the steering shaft ears. Use the lower holes for pavement and the top holes for dirt. Refer to the Alignment Block Manual for the proper timing of the steering shaft ears.

Front & Rear Panhard

The front panhard can now be connected to the front axle as shown. Make sure the front panhard is mounted on the back side of the mounting bracket on the frame as pictured. The rear panhard is the opposite it mounts on the front side of frame mounting bracket. Check the spec sheet for the standard panhard bar location.

Steering Wheel

Position the steering shaft so the ears are evenly split (clock them at 11and1) or so the steering shaft appears to run directly through the middle of the two ears. You can now slide the steering wheel and hub on to the shaft in the position you desire.

Nerfs and Bumpers

The bumpers and nerfs can be slid into the car and drilled for a 10/32 bolt.
We normally do not drill the bottom two spuds of the front and rear bumper; but we do drill all three spuds for the nerf bars.